

Implementation of E-Government in Improving Public Service Efficiency: A Case Study on the Batu City Government

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ABSTRACT

This study aims to analyze the implementation of e-Government in improving the efficiency of public services in the Batu City Government, especially through the Digital Public Service Mall (MPP) "Among Warga" service. Using a descriptive qualitative approach, data was obtained through interviews, observations, and documentation. The results show that service digitization is able to reduce the licensing process time from 3-5 days to 1-2 days, reduce administrative costs, and increase public satisfaction from 65% to 83%. However, obstacles were found in the form of limited digital human resources, lack of integration between OPDs, and low digital literacy of the community. This study aims to analyze the implementation of e-Government in improving the efficiency of public services in the Batu City Government, especially through the Digital Public Service Mall (MPP) "Among Warga" service. Using a descriptive qualitative approach, data was obtained through interviews, observations, and documentation. The results show that service digitization is able to reduce the licensing process time from 3-5 days to 1-2 days, reduce administrative costs, and increase public satisfaction from 65% to 83%. However, obstacles were found in the form of limited digital human resources, lack of integration between OPDs, and low digital literacy of the community.

Keywords: E-Government, Public Service Efficiency, Digitalization

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INTRODUCTION

In the era of the industrial revolution 4.0, the development of information and communication technology (ICT) has changed the paradigm of public services in various parts of the world. The government is required to be not only responsive, but also efficient in providing services to the community. E-Government is a strategic solution to transform public services from conventional to digital-based systems.

The Batu City Government, as a tourist city with rapid economic and population growth, also seeks to improve the effectiveness and efficiency of public services. Based on data from the Central Statistics Agency (BPS) in 2023, the population of Batu City reached 217,503 people, spread across 3 sub-districts and 24 sub-districts/villages. The increase in demand for administrative services is a challenge in providing fast and transparent services.

Responding to these challenges, the Batu City Government launched the Digital Public Service Mall (MPP) "Among Warga" in 2024. This Digital MPP is designed to make it easier for the public to access licensing services, population administration, complaints, and online service process notifications. According to news from Gresik East Java Times (2024), this platform is part of the city's strategy towards a smart city based on integrated digital services.

The implementation of e-Government in Batu City does not only rely on digital services, but also the integration of systems between regional apparatus organizations

(OPD) and the use of applications such as Si Mantap, Si Cantik Cloud, and regional tax information systems. However, the implementation of e-Government still faces a number of obstacles, especially in terms of limited network infrastructure in several urban villages and low digital literacy of residents.

According to the results of a study by Anjani et al. (2018), the readiness of e-Government in several OPDs in Batu City is still relatively low. Assessments using the ICT Readiness model show that only a few OPDs such as Kominfo, BKD, and BKPSDM have readiness at the medium level (level 3), while most other OPDs are still at the basic level (level 2). This indicates the need to strengthen systems, human resources, and digital governance as a whole.

In terms of service users, an internal survey by the Communication and Informatics Office at the end of 2023 noted that only around 61% of residents feel comfortable using government digital services, while the rest still prefer to come directly to the service office. This shows that the success of the implementation of e-Government does not only depend on the availability of technology, but also on the acceptance of the public and the capabilities of the apparatus.

The concept of e-Government refers to the use of ICT by the government to provide public services more effectively and efficiently (UN, 2014). According to the PeGI (Indonesian e-Government Ranking) model, the important dimensions of e-Government include policies, institutions, infrastructure, applications, and planning. The efficiency of public services involves reducing time, costs, and administrative efforts in providing services to the community (Osborne & Gaebler, 1992).

Previous research in Batu City shows that the readiness for e-Government implementation still varies between OPDs. Some agencies such as Kominfo and BKD are at a moderate level of readiness, while others are still low (Anjani et al., 2018). These findings indicate the need for human resource improvement, system integration, and strategic planning in supporting the digitalization of services.

Based on these conditions, this study aims to examine how the implementation of e-Government in Batu City through Digital MPP can contribute to the efficiency of public services, as well as identify obstacles and improvement strategies that can be carried out by local governments.

METHOD

This study uses a qualitative descriptive approach with a case study on the Batu City Government. Data collection techniques include in-depth interviews with officials of the Communication and Informatics Office, Dukcapil, and Bappelitbangda, observation of the use of the Digital MPP service, as well as analysis of policy documents and service data. Data analysis is carried out through data reduction, data presentation, and thematic conclusion drawn.

FINDING AND DISCUSSION

The results of the study show that the implementation of the "Among Warga" Digital MPP makes a significant contribution to the efficiency of public services. The licensing process that previously took 3-5 days can now be completed in 1-2 days online. Reduced document printing and duplication costs, and digital notification systems increase transparency.

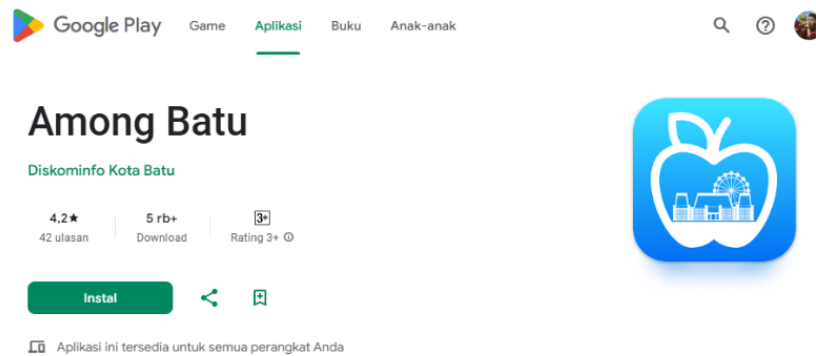


Figure 1. Among Stone Applications

This application is an implementation of the services carried out by the Batu City Government, by launching the digital service, making it easier for residents to accessibility. In it there are many features that can be used, not only registration services, letter making, etc., but also providing information and recommendations for tourist attractions, lodgings, and MSMEs in the city of Batu. This is a real step as a form of also making it easier not only for Batu residents but also for regional tourists who visit Batu City. Here's a picture of the features in it.

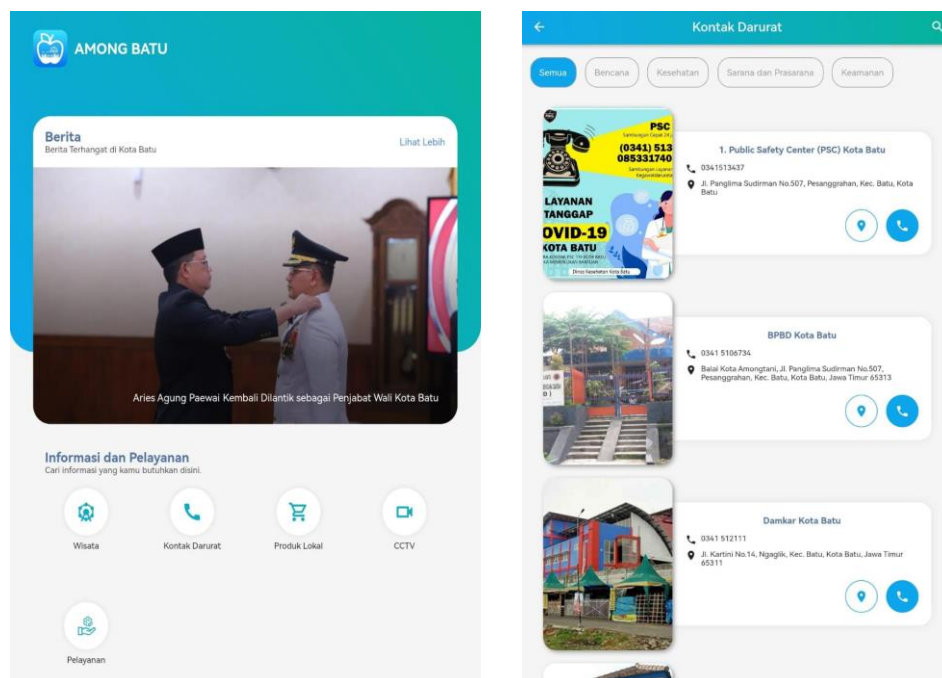


Figure 2. Among Batu Application Dashboard

Based on visual observations, the Among Warga MPP room has been equipped with self-service facilities that allow residents to access the digital system directly. Figure 2 shows officers providing assistance to users who experience technical problems, showing the need for digital literacy as an integral part of the success of the system. Meanwhile, the service dashboard display displays integration between applications even though it is not fully real time.

The following table 1 shows a comparison of several efficiency indicators before and after the implementation of Digital MPP across three main service types:

Table 1. Efficiency Indicators

Indicators	Before Digitization	After MPP Digital
Licensing Process Time	3-5 Days	1-2 Days
Average Administration Fee	IDR 35,000	IDR 15,000
Use of Paper/Documents	Tall	Low
Levels of Public Papacy	65%	83%

Nevertheless, the study also found some challenges. Based on interviews with Dukcapil officers, around 30% of complaints entered into the digital complaint system are related to discrepancies in service status and inactive notifications. In addition, the results of observations show that around 25% of residents still come directly to the service office even though an online system is available.

From an institutional perspective, not all OPDs are able to manage service applications independently. Most rely on the Communication and Informatics Service for system updates, slowing down the response to technical improvements. Integration between applications is also still limited; For example, the data of business license applicants is not automatically connected to the regional tax system.

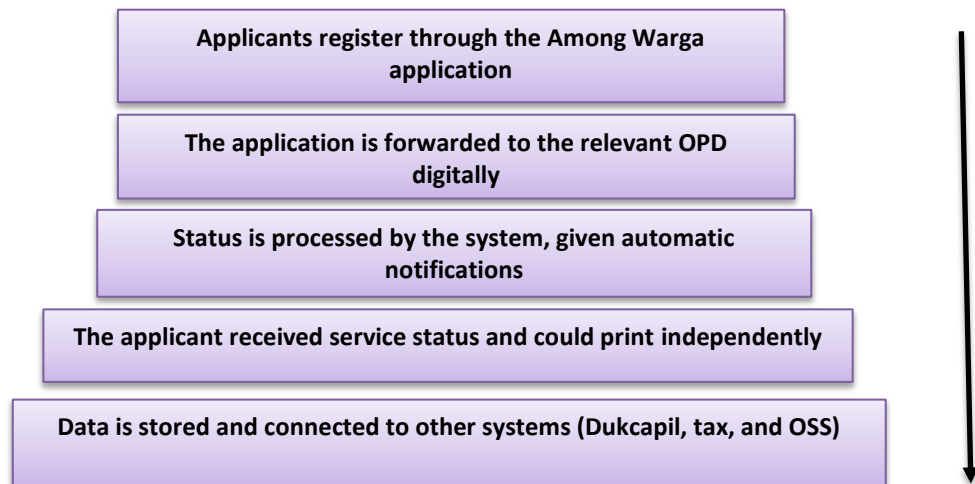
Theoretically, this condition can be explained through the TAM approach, where the failure of adoption by some OPD residents and employees may be caused by the perception that the system is not fully user-friendly and has not provided maximum benefits in service practices. This is in line with the findings of a study conducted by Wibowo et al. (2021) in Yogyakarta City, which stated that the success of e-Government is highly dependent on the active involvement of internal and external stakeholders as well as the consistency of continuous training.

In addition, based on the Technology Acceptance Model (TAM) developed by Davis (1989), the adoption of technology by the public and the apparatus is highly dependent on two main aspects: perceived usefulness and perceived ease of use. In the context of Batu City, the increase in service satisfaction from 65% to 83% indicates an increase in perceived usefulness, but the existence of 25% of residents who are still reluctant to use digital systems indicates that there is still a low perceived ease of use that needs to be strengthened through digital education.

These findings are also consistent with research by Priyono et al. (2020) which states that the success of e-Government is highly dependent on the readiness of infrastructure and the quality of digital human resources. In the study, areas that have an integrated system between units tend to have higher public satisfaction.

The following image shows the flow of services in the MPP Among Warga system that has been digitally integrated:

Bagan 1. MPP Digital



This flow still leaves a weak point in the integration process between regional tax service systems and business data. Thus, strengthening digital interoperability and change management is crucial to increase the overall success of e-Government in Batu City.

This discussion shows that although the implementation of e-Government has made positive achievements in terms of efficiency, a holistic approach is still needed that includes training of apparatus, digital literacy of the community, and more mature system integration for the efficiency to be sustainable.

CONCLUSIONS

The implementation of e-Government through the Digital MPP in Batu City has been proven to improve the efficiency of public services in terms of speed, cost, and transparency. However, challenges such as infrastructure and human resources gaps still need to be addressed. The Batu City Government needs to strengthen digital training for apparatus, build an equitable ICT infrastructure, and encourage system interoperability between OPDs to achieve fully efficient and digital public services.

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