# Evaluating E-Government Maturity Using the Pillar Approach: A Focus on Situbondo Regency Government Official Website, Indonesia

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*Abstrak*

*For almost 20 years, Indonesia has been committed to increasing the digitization of government through e-Government policies. Situbondo Regency, as the locus of this research 2021, received three Top Digital Awards 2021 from ITWorks Magazine for its success in running several digital-based public service innovations. Public service innovations include website development. The website becomes the primary tool to see the level of implementation of e-Government in a local government, the gateway to various public services provided to the community without the need to meet face-to-face. A simple way to find out the quality of e-Government in local governments is to look at the contents of the local government's official website. There are many website evaluation models, but they are still in stages/levels, with the weakness that if the first stage has not been fulfilled, it will be difficult for the Regional Government to "level up" in the next stage. The Fietkiewicz, Mainka, & Stock (2017) model sees that e-Government development is not limited to completion per level but more comprehensively presents each construction element as part of development progress. This model places the e-Government approach on a "pillar" approach, not a "tier" approach. The method used by the researcher is web observation with a qualitative approach. The results obtained from https://situbondokab.go.id., with a total of five pillars as indicators at 62% fulfilled from all the supporting elements of the pillars. Pillar of interoperability that obtains maximum value than other pillars. Meanwhile, the transaction pillar needs special attention from the Situbondo Regency Government for further web development.*

*Keywords: e-Government; website; quality; pillar;*

**Abstrak**

Sudah hampir 20 tahun Indonesia berkomitmen untuk meningkatkan digitalisasi pemerintahan melalui kebijakan e-Government. Kabupaten Situbondo sebagai lokus penelitian ini, pada tahun 2021 mendapatkan tiga penghargaan Top Digital Awards 2021 dari Majalah ITWorks karena keberhasilannya menjalankan sejumlah inovasi pelayanan publik berbasis digital. Inovasi pelayanan publik diantaranya juga perkembangan website. Website menjadi primary tool untuk melihat tingkatan penerapan e-Government di suatu pemerintahan daerah, pintu gerbang berbagai layanan publik yang diberikan kepada masyarakat tanpa perlu tatap muka. Cara sederhana untuk mengetahui kualitas e-Government pada Pemerintah Daerah adalah dengan melihat bagaimana isi website resmi Pemerintah Daerah tersebut. Ada banyak model evaluasi website namun masih berupa tahapan/tingkatan, dengan kelemahan jika tahapan pertama belum terpenuhi, maka sulit bagi Pemerintah Daerah untuk "naik tingkat" pada tahapan selanjutnya. Model Fietkiewicz, Mainka, & Stock (2017) melihat bahwa pengembangan e-Government tidak sebatas penyelesaian per tingkatan, tetapi lebih komprehensif menghadirkan setiap elemen konstruksinya sebagai bagian dari kemajuan pengembangan. Model ini menempatkan pendekatan e-Government pada pendekatan "pilar", bukan pendekatan "tingkatan". Metode yang digunakan oleh peneliti adalah observasi web dengan pendekatan kualitatif. Hasil yang diperoleh dari website Pemerintah Kabupaten Situbondo https://situbondokab.go.id., dengan total lima pilar sebagai indikator berada di angka 62% terpenuhi dari keseluruhan unsur unsur pendukung pilar. Pilar interoperability yang memperoleh nilai maksimal daripada pilar lainnya. Sementara pilar transaction perlu mendapatkan perhatian khusus dari Pemerintah Kabupaten Situbondo untuk pengembangan web selanjutnya.

**Keywords:** e-Government; website; kualitas; pilar

## INTRODUCTION

Information technology has dominated human life, revolutionizing industrial, education, government, and other sectors (Rante et al., n.d.). In line with this, Presidential Instruction No. 3 of 2003 concerning National Policy and Strategy for the Development of E-Government commenced the Electronic Government development in Indonesia manifests the government's use of Information and Communication Science (ICT).

The government's commitment to digital reform was strengthened by Law Number 14 of 2008 concerning Openness of Public Information and Presidential Regulation No. 15 of 2018 concerning Electronic-Based Government Systems. According to the United Nations (UN) E-Government Survey 2020, Indonesia ranked 88th for developing and implementing an E-Government system (SPBE). This showed that the country had improved by 19 positions from 107th in 2018 and 116th in 2016 (www.kominfo.go.id, 2020).

Indonesia became a member of the Open Government Partnership (OGP) in 2011. Other members include the United States, South Africa, Brazil, United Kingdom, Mexico, Philippines, and Norway. OGP was established to obtain government commitment to offering transparency, empowering people, fighting corruption, and strengthening governance through ICT (Asmorowati & Setijaningrum, 2021).

Ten years after becoming an OGP member, Indonesia has raised the issue of digitization through the G20 Presidency.

Indonesia's G20 presidency is a momentum for the government to develop inclusive digital transformation (www.kominfo.go.id, 2022). In this case, digital transformation is one of the three priorities of the Indonesian G20 Presidency. Additionally, the sector is a key to global joint recovery efforts after the COVID-19 pandemic (www.kemlu.go.id, 2022).

The commitment is related to implementing government functions as a digital-based community service provider. Internet users in Indonesia were 202.47 million in January 2022 (Databoks, n.d.). This has made E-Government a topic of discussion on the internet and mass media after being linked to regional autonomy (Sosiawan, 2008). Digital technology increases performance and welfare, saves costs and resource consumption, and engages more effectively and actively with the community (Nurrahman et al., 2021). Therefore, combining e-Government services and the internet is a bureaucratic transformation that benefits the community.

The government should provide easy access for users by maximizing internet-based services accessible 24/7. Furthermore, implementing E-Government in public services could maximize information disclosure or transparency. This ensure that information is no longer hidden or controlled. It becomes easier for people to obtain information through various media using ICT (Nupikso, 2015). Moreover, all service processes could be conducted online with higher data accuracy and minimal identity and other errors (Cheisviyanny et al., n.d.).

Information disclosure is an added value to implementing E-Government. For this reason, Indonesia adheres to a democratic system in which the government administration is responsibility to the people in all activities, including public information disclosure (Asmorowati & Setijaningrum, 2021). The originally closed public service information becomes accessible to anyone, any time, and anywhere. In the past, people in need of information about public services came directly to the place of service. The existence of E-Government enables people to use an organization's website to obtain information without face-to-face meetings. This website is a gateway to various public services performed (de Haan et al., n.d.) because it covers the government's limitations in disseminating information (Masyhur, 2014).

One manifestation of the E-Government application commonly implemented and regulated in Indonesia is the local governments' website (Veronika, 2018). According to Government Regulation No. 6 of 2008 Article 53, Government Regulation no. 3 of 2007 Article 27, and the Minister of Home Affairs Regulation No. 7A of 2007 Articles 4 and 5, electronic media are websites by local governments used to disclose information to the public (Cheisviyanny et al., n.d.). Media is an extension of human hands, and its reach would expand many things, even beyond space and time (Aprilia & Wijaya, 2014).

Public organization websites increase transparency, accountability, and public participation. They provide community and organizations with effective and efficient disclosure of government processes, structures, and products, as well as channels for interacting with government (Bimber 1999; Jun and Weare 2010; La Porte et al. 2001; Musso et al. 2000; Tolbert and Mossberger 2006; West 2004 dalam Cheisviyanny et al., n.d.).

Website utilization and usability are also seen in its performance and effective user navigation. This becomes one of the key factors for the quality of website services (Poon, 2002). A good website should provide complete information to people in the same domain address. Users feel satisfied when the website services are appropriate to the information service quality and the level of future expectations (Poon, 2002).

For almost 20 years, Indonesia has been committed to increasing digitization through E-Government policies. The website is the primary tool to evaluate its implementation in a local government. In line with this, Sosiawan (2008) stated that many local governments identify E-Government as a website or web presence. This shows that the implementation is at preparation stage. Only a few local governments have reached level two (maturation), while levels three (consolidation) and four (utilization) have not been reached. According to the data and Information Center of the Home Affairs Ministry, 491 of 530, or 92.6% of local provincial, regency, and city governments had an official website as of May 2013.

The development stages are important in explaining the position of E-Government implementation in government. As an information technology support, the infrastructure development would lose its direction when no target position is achieved by the government. Therefore, the E-Government evolution stage model could be an initial picture to measure the use of ICT in governance. However, E-Government has always been associated only with the internet and web presence. The first level or preparation shows the website as a source of information while the second level or maturation sees the website as a communication channel. However, when associating E-Government evolution based on the stage completion, other elements of its construction are not considered developments when one stage is incomplete.

The website is also a communication bridge between the government and the community. It displays public information and also serves as an exchange of information. In 2021, Situbondo Regency was awarded as the best public information service provider regency in East Java (jatim.antaranews.com, 2021). Moreover, received three Top Digital Awards from ITWorks Magazine for successfully running several digital-based public service innovations. The three awards include Top Digital Implementation Level 4 Star, Top Leader on Digital Implementation, and Top CIO on Digital Implementation (Saphan & Pitaloka, 2021 ).

This study used the website quality measurement model from Fietkiewicz, Mainka, & Stock (Fietkiewicz et al., 2017).

This model was used to measure website quality because is a collaboration of several models. The e-Government evaluation assessment model is generally based on levels. Like the United Nations (2008) model, it consists of five stages, namely 1) emerging, 2) enhanced, 3) interactive, 4) transactional, and 5) connected. Then the e-Government maturity model, according to Layne and Lee (2001), also contains an assessment through levels, in the form of 1) catalog; 2) transactions; 3) vertical integration, and 4) horizontal integration. In both models, if the Local Government wants to level up to the next stage, it must meet all the indicators at the lower level.

According to the model, E-Government development is not limited to completion per level. It is more complex in presenting each element of its construction as part of development progress. This places the E-Government on a "pillar", not a "tier" approach. Therefore, an E-Government would not be deadlocked at stage one or stage two but may skip the transaction and the first stage to develop its vertical and horizontal integration. According to this interpretation, the stages are considered E-Government pillars (Fietkiewicz et al., 2017). The model also results from reflecting and considering previous models and has been used globally to see the implementation of E-Government in 31 major cities in the world (Hidayat, 2021:38).

The five pillars in the model are information dissemination (catalogue), communication, transactions, interoperability (integration), and 5 participation. The first pillar emphasizes the published website content, which should be useful and easy to access. The second pillar evaluates the communication relationship between the government, the community, and other environments through the website. The third pillar provides a place for financial and non-financial transactions on the website. Furthermore, the fourth pillar shows whether the data and information collected on a website's database could be used simultaneously with other platforms bound in one system. The fifth pillar assesses how the use of E-Government could trigger public participation.

However, no previous study has used a model approach of Fietkiewicz, Mainka, & Stock (Fietkiewicz et al., 2017) with a locus in Situbondo Regency. In a previous study, the measurement of the quality of e-Government in Situbondo Regency used the indicators contained in the Presidential Instruction Number 3 of 2003, the Decree of the Governor of East Java Number 36 of 2003, and the Regulation of the Regent of Situbondo Number 4 of 2012, which consisted of 4 (four) stages. ; 1) Preparation; 2) Maturation; 3) Stabilization; 4) Utilization. Of the four stages mentioned above, what the Situbondo district government has carried out is providing public access facilities (infrastructure), formulating policies, determining the vision and mission of developing public e-Government public services, preparing e-government development priorities or master plans, education and training of human resources and the existence of a public service contract through e-government. The last is the socialization

of the implementing bureaucracy and the community, so they know the importance of service through e-government (Syahrul Ibad & Yona Wahyu Lolita, 2020).

Therefore, this study aimed to examine the stages of E-Government development in Situbondo Regency, based one the quality of its official website https://situbondokab.go.id/

**METHODS**

This study used the descriptive qualitative method and collected data through website observation. It was conducted on natural objects by analyzing, photographing, and constructing the social situation being studied to obtain clearer and more meaningful data (Sugiyono, 2012).

The study object is the official website of the Situbondo Regency Government (*https://situbondokab.go.id*). It also used other references regarding E-Government from books, national and international journals, articles, and websites.

The analysis tool is the indicators and sub-indicators in the Website Quality Evaluation Model (Fietkiewicz et al 2017). By operationalizing the concept, the official website of the Situbondo Regency Government was observed and described by answering the sub-indicators listed in Table 1.

**Table 1.** Concept Operationalization Table

| Theory | No | Indicator | Sub Indicator |
|---|---|---|---|
| Website Quality Evaluation Model according to Fietkiewicz, Mainka, & Stock (2017) | 1 | Information Dissemination | 1) press releases; 2) basic information; 3) health service information; 4) political information; 5) availability of general public service information; 6) availability of public service forms; 7) availability of information for various user groups (class, age, profession); 8) whether it can be accessed via smartphone; 9) availability of applications for smartphones; 10) availability of "push services"; 11) availability of information in English; and 12) availability of information in the three languages of the largest immigrant groups. |
| | 2 | Communication | 1) social media use; 2) availability of options for appointments with government officials through the website; 3) availability of answers regarding public services via email; 4) availability of email channels; 5) availability of features to provide feedback and complaints. |
| | 3 | Transaction | 1) is it possible to fill out the form online? 2) is it possible to pay taxes online? 3) is it possible to pay fines online? 4) is it possible to pay for services online? 5) availability of public library services; 6) availability of a customized portal. |
| | 4 | Interoperability (integration) | 1) availability of homepage entries; 2) the existence of coordination between authorities (software/security standards/intranet/database). |
| | 5 | Participation | 1) availability of online questionnaires; 2) the existence of forums or platforms to provide questions to service providers; 3) availability of channels for conducting public meetings online; 4) availability of channels for online voting. |

*Source*: *Primary Data, 2022*

## RESULTS AND DISCUSSIONS

The website *https://situbondokab.go.id/* is the official portal for providing information and administrative services within the Situbondo Regency Government accessed freely by the community and its service users. The first page of the website contains the entry homepage, while the second and third pages are the main and advanced pages, respectively. The advanced page has various views adjusting from the first action taken on the previous web page.

The entry homepage is a transit page for all users before entering the main website page. The page has a shortcut access to important information or services widely used by users. When users select one of the eight available shortcuts, they go directly to the advanced page of each choice. This simplifies finding the service or information without navigating further on the main website page.

**Figure 1.** Homepage Entry Display
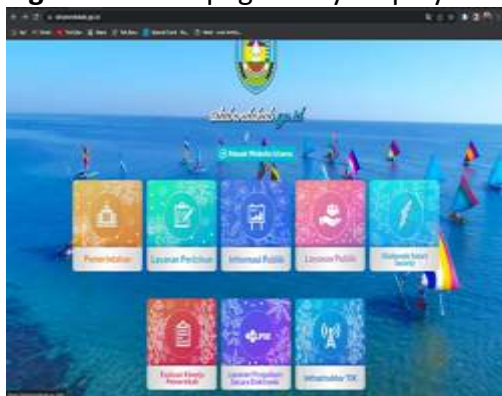


*Source*: *Primary Data, 2022*

The main website page is a web-based primary page with all Situbondo Regency infographics. The page loads infographics and also contains services provided by the Regency Government. Information on the homepage entry is presented partially per button bar or shortcut access. On the main website, information is provided per column and in one display with many columns. Therefore, comprehensive information is contained on the main website page.
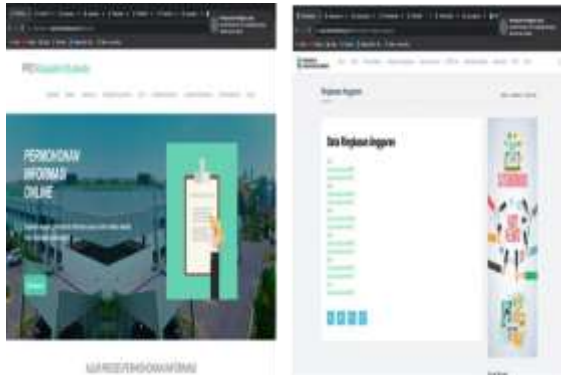
**Figure 2.** Main website display



*Source*: *Primary Data, 2022*

The next page is divided into two groups. The first group is the advanced page connected to the Office, Agency, or Other Government Agencies page, which information and services are needed by users. This advanced page has a different appearance because it adjusts to the organizing agency. The second group is still on the main website page. The advanced page appears when the user gives the first action on the main or homepage.

**Figure 3.** Web Advanced Page Display



*Source*: *Primary Data, 2022*

**Table 2.** Information Dissemination Indicator Observation Results

| Pillars / Indicators | Questions/Statements/Sub Indicators | Observation Results | |
|---|---|---|---|
| | | Yes | No |
| Information Dissemination | 1) availability of press releases; | v | |
| | 2) availability of basic information; | v | |
| | 3) availability of health service information; | v | |
| | 4) availability of political information; | | v |
| | 5) availability of general public service information; | v | |
| | 6) availability of public service forms; | v | |
| | 7) availability of information for various user groups (class, age, profession); | v | |
| | 8) whether it can be accessed via smartphone; | v | |
| | 9) availability of applications for smartphones; | v | |
| | 10) availability of "push services"; | | v |
| | 11) availability of information in English; and | | v |
| | 12) availability of information in the three languages of the largest immigrant groups. | | v |
| Total | | 8 | 4 |
| Percentage of Achievement Indicator | | 66.67% | |

*Source*: *Primary Data, 2022*

The E-Government maturity model from Fietkiewicz, Mainka, & Stock (2017) has five pillars which used to assess the completeness of the website display development in describing the implementation of E-Government in Situbondo Regency. Furthermore, these are used as indicators, including Information Dissemination, Communication, Transaction, Interoperability or Integration, and Participation.

**A. Information Dissemination**
Fietkiewicz et al (2017) stated that the Information Dissemination pillar shows the information, usability, and the ease of access for users. The difficulty of accessing a website is often caused by the services provided. Special accessibility standards are needed to ensure users have equal opportunities. Furthermore, several statements and questions on *https://situbondokab.go.id* regarding the pillars of information dissemination. The website's appearance is observed using these statements and questions as a sub-indicator of the assessment.
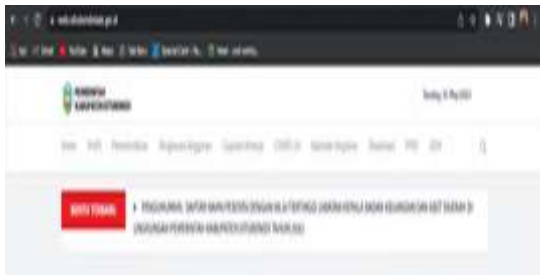
In the information dissemination pillar, 8 of the 12 sub-indicators on the official website of Situbondo Regency have been met. These include:
1. Availability of press releases. Columns are provided on the latest activities or important announcements from the Situbondo Regency Government.

**Figure 4.** Press Release Display



*Source*: *Primary Data, 2022*

2. Availability of basic information. The website page has information on prices of necessities, the height of the floodgates, the Regional Revenue and Expenditure Budget (APBD) in the current year, and staffing. Each menu bar on the "Home" page header displays information appropriating users' needs. When users want information regarding the budget, they check on the "Budget Summary" menu. Information regarding the performance of the Situbondo Regency Government elements is checked through the "Performance Achievements" menu.

**Figure 5.** Display of basic information on the Website
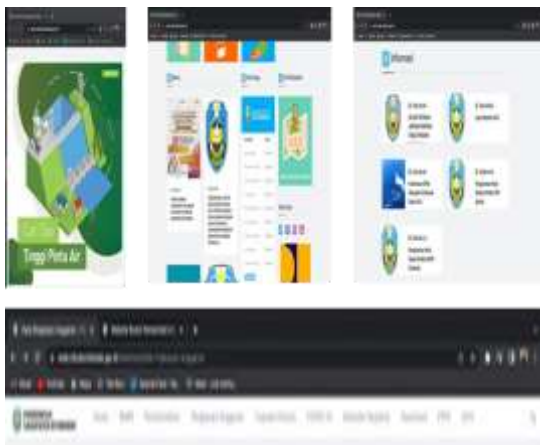


*Source*: *Primary Data, 2022*

3. Availability of health service information. The first health information on the web page is an infographic about

COVID-19. The public accesses health information through the "SIMESSEM" information system provided on the "STEMPEL" website page. SIMESSEM appears when selecting the "Public Service" button bar.

**Figure 6.** The Display of Health Service Information on the Website
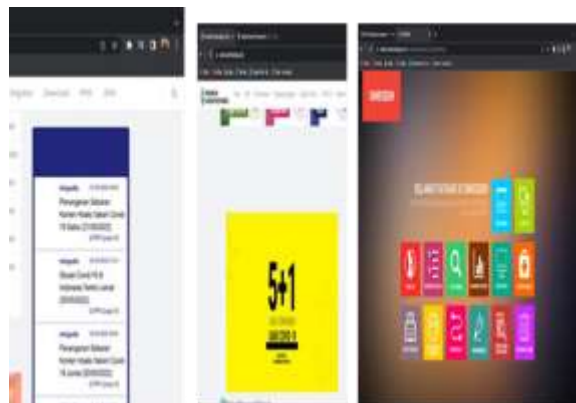


*Source*: *Primary Data, 2022*

4. Availability of general public service information. The Situbondokab.go.id website page displays some general public service information. This information is accessed directly before users or the public enter the main website. General public service information is found on the transit page and accessible by pressing the "Public Services" button bar. The information is provided partially according to other government agencies' services required. All information on this service is found on the STEMPEL page (*stempel.situbondokab.go.id*) connected to the official website of the Situbondo Regency Government.

**Figure 7.** The display of public service information on the Website
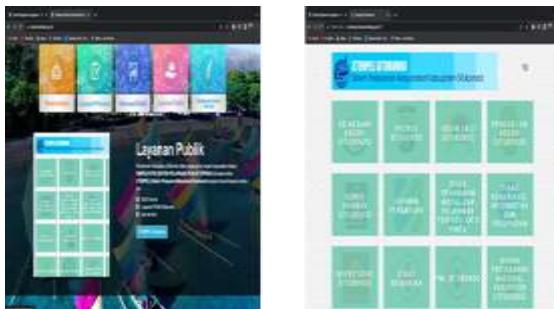


*Source*: *Primary Data, 2022*

5. Availability of public service forms. The Situbondo Regency Government has integrated several agencies providing public service forms on one STEMPEL website page. This is a follow-up page from the main Situbondokab.go.id website page. The public services include a business permit application form by the Situbondo Regency DPMPTSP, requests for information and documentation by the Situbondo Communication, Information and Encryption Service. Other services are whistleblowing system reporting by the Situbondo Inspectorate, donor submissions and blood requests by PMI Situbondo, and question forms on legal products by the Situbondo Legal Department. The page also displays services such as application forms for population registration by the Situbondo Population and Civil Registry Service, reports on waste problems by the Environment Service, and the application for study permits by the Situbondo National and Political Unity Agency.

**Figure 8.** The Display of Public Service Forms on the Website
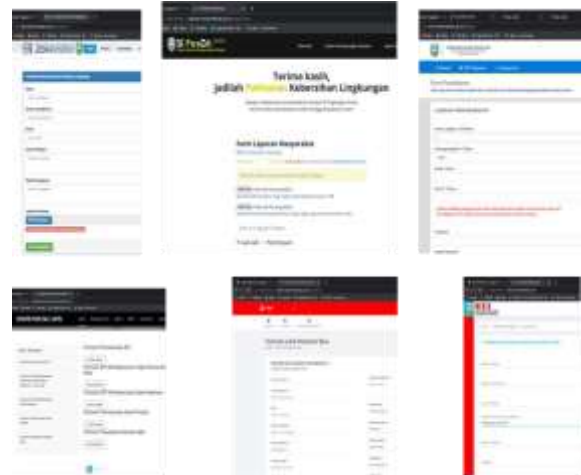


*Source*: *Primary Data, 2022*

6. Availability of information for various user groups, such as class, age, and profession. Information for various user groups on the official Situbondo website portal is seen from applications accessed through the site. These applications are useful for user groups appropriate to their interests, helping them answer the information required. The running applications are found on the advanced page of the *Situbondokab.go.id* website. The website is called the Situbondo Regency application portal or the Situbondo Smart Society page (*egov.situbondokab.go.id*). From this page, users access various applications according to their interests. The interests of several users with the same background are also grouped. For instance, there is an application for *Guru Ngaji* for professional groups to apply for financial assistance from the village to the government for Quran Teachers and Sunday School Teachers. From the age group, students who want to apply for study in Situbondo Regency access the

SRITI Application on the portal page for the permit process.

**Figure 9.** Display of Available Information for Various User Groups



*Source*: *Primary Data, 2022*

7. Access for smartphones exists with the PAKEM BERJAYA application. The application contains information similar to the official website of Situbondo Regency. This includes information on community services, prices of necessities in Situbondo Regency, and reporting complaints.

**Figure 10.** The display on the Smartphone



*Source*: *Primary Data, 2022*

8. Availability of smartphone applications. These applications with a portal on the Situbondo Regency website are in the PAKEM BERJAYA application. The appearance of those using service support applications is changed according to the devices used. When using a PC or laptop, users open the URL address *situbondokab.go.id*. They download the

PAKEM BERJAYA application when using a smartphone mode.

Eight statements and questions for the Information Dissemination pillar have been fulfilled. Four other indicators are not found on the *https://situbondokab.go.id* website page. These include the availability of political information, "push services", information in English, and other immigrant languages. The percentage calculation was performed based on the availability of sub-indicators on the official website of Situbond Regency. The calculation showed that 66.67% of sub-indicators were fulfilled in the Information Dissemination pillar section.

### B. Communication

The second pillar is Communication utilizing the appearance of social media as two-way communication. A contemporary concept acceptance example of communication and information distribution in the public is the appearance of social media such as Facebook and Twitter. This display could be adopted by the government in running digital-based public services by providing feedback columns and handling complaints. The statements in Table 3 assess the completeness of the second pillar on the website display *https://situbondokab.go.id*.

**Table 3.** Communication Indicator Observation Results

| Pillar/Indicator | Questions/Statements/Sub Indicators | Observation Results |  |
|---|---|---|---|
|  |  | Yes | No |
| Communication | 1) social media use; | v |  |

| | | |
|---|---|---|
| 2) availability of options for appointments with government officials through the website; | v | |
| 3) availability of answers regarding public services via email; | v | |
| 4) availability of email channels; | v | |
| 5) availability of features to provide feedback and complaints | v | |
| Total | 3 | 2 |
| Percentage of Achievement Indicator | 60% | |

*Source*: *Primary Data, 2022*

Table 3 shows the results of web observations on communication indicators. Three of the five sub-indicators are on the website *https://situbondokab.go.id*, including: In social media use, there is a button bar column that lists social media including Instagram, Facebook, Youtube, and Twitter; Availability of email channels. The website page provides an official email address pemkab@situbondokab.go.id that could be contacted; and Availability of features to provide feedback and complaints. In this sub-indicator, the website has public complaint application and whistle blowing system applications, as well as a service widget for aspirations, suggestions, and complaints.

**Figure 11.** The display of Communication pillar web support



*Source*: *Primary Data, 2022*
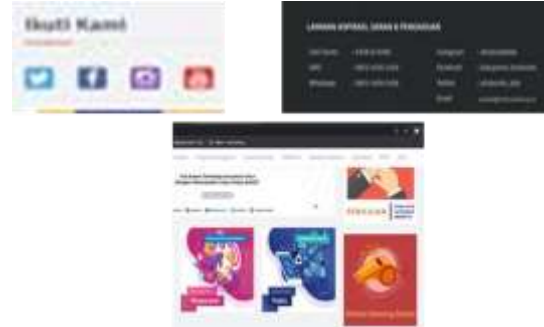
The https://situbondokab.go.id website has no column displaying options for appointments with government officials and answers regarding public services through email. The communication indicator produced 60% from the percentage calculation based on the availability of sub-indicators. This means that 60% of the communication pillars have been fulfilled on this website.

### *C.* Transaction

The Transaction pillar explains how the website could be used as a public service financial and non-financial transaction media. Fietkiewicz et al. (2017) stated that including transaction processes on government websites measures public trust in the government and increases the website's usefulness. This indicates the more the community enjoys its benefits, the higher the chances of developing E-Government. However, the need for data security guarantees underlining needs in applying the transactional concept on the website display. Table 3.3 shows the results of observations on statements supporting the third pillar's existence on the website.

**Table 4**. Transaction Indicator Observation Results

| Pillar/Indicator | Questions/Statements/Sub Indicators | Observation Results | |
|---|---|---|---|
| | | Yes | No |
| Transaction | 1) Is it possible to fill out the form online? | v | |
| | 2) Is it possible to pay taxes online? | | v |
| | 3) Is it possible to pay fines online? | | v |
| | 4) Is it possible to pay for services online? | | v |
| | 5) Availability of public library services; | v | |
| | 6) Availability of a customized portal. | | v |
| | Total | 2 | 4 |
| Percentage of Achievement Indicator | | 33.33% | |

*Source*: *Primary Data, 2022*

Only two of the six questions and statements on the Transaction pillar could be answered based on web observations. These are the web's ability to provide online form filling and public library services on web pages. Form-filling is not on the main page but on the service management or technical agency pages. They are connected to the main website page through the "Public Services" button bar. The button bar directs to applications provided by the technical agency in Situbondo Regency. This includes public library services managed by the Public Library and Regional Archives Service of Situbondo Regency with the INLIST application (e-Library Catalog) directly connected to the National Library of Indonesia.

**Figure 12.** The display of Transaction Pillar Support Web



*Source*: *Primary Data, 2022*

The Situbondo Regency website page is connected to the application pages used by its technical agencies. However, there is no column for payment transactions. For instance, only an application form for a business license is included. Similarly, the health-related application only displays visitation information. Although there is a "visit booking" button bar, the feature cannot function. The Transaction indicator achievement calculation showed that the Situbondo Regency website only meets 33.33% of all sub-indicators.

**D. Interoperability (Integration)**

The interoperability pillar emphasizes that one of the keys to E-Government is that all data could be used simultaneously by all government components. The existence of data-sharing in a protocol mutually agreed upon is the key to implementing interoperability. Moreover, interoperability means that a website links pages between governments, where each agency provides different public services but on a single website. Table 3.4 shows the completeness of the third pillar, indicating the quality of the website *https://situbondokab.go.id*.

**Table 5.** Interoperability (Integration) Indicator Observation Results

| Pillar/Indicator | Questions/Statements/Sub Indicators | Observation Results | |
|---|---|---|---|
| | | Yes | No |
| Interoperability (Integration) | 1) availability of homepage entries; | v | |
| | 2) existence of coordination between authorities (software/security standards/intranet/database). | v | |
| | Total | 2 | 0 |
| Percentage of Achievement Indicator | | 100% | |

*Source*: *Primary Data, 2022*

The interoperability pillar has sub-indicators fulfillment with a percentage of 100%. All pointers from these indicators are implemented on the official website of Situbondo Regency. The homepage is an entry to the main page by displaying various button bar features, such as "Government", "Licensing Services", and "Situbondo Smart Society." This makes the website page a shortcut access for users and a transit for the service agencies.

**Figure 13.** The Display of the Entry Homepage As Interoperability Pillar Support



*Source*: *Primary Data, 2022*

This website page also displays information and services between government authorities. The agencies supporting the government, such as the Police, Attorney General's Office, and Military District Commander, have a special column, the "Licensing Service" menu and the STEMPEL (Situbondo Regency Community Service System) page.

**Figure 14.** The display of the STEMPEL page as Interoperability Pillar support
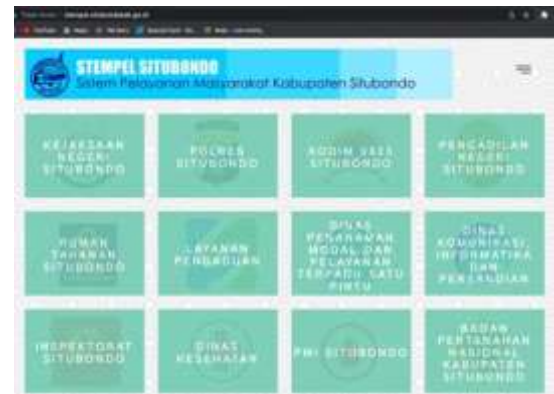


*Source*: *Primary Data, 2022*

The site page provides a "Situbondo Smart Society" button bar to accommodate various applications used in the Situbondo Government. This button take users to browse any applications to facilitate service administration on the portal page. Although the concept is similar to the STEMPEL page, the application portal page has different applications. This could be an evaluation material for the site manager to simplify the display and eliminate overlap between connecting pages.

**Figure 15.** The display of the Situbondo Smart Society Page as Interoperability Pillar Support



*Source*: *Primary Data, 2022*

### E. Participation

The Participation pillar is a consequence of democratic governance, where public participation should be considered. It is the fifth pillar in evaluating E-Government (Fietkiewicz, Mainka, & Stock, 2017), showing the website as an opportunity to mobilize community aspirations. Users are facilitated by their involvement in government administration through a website whose access is not bound by space and time.

The community's flexibility to participate in the website should be regulated by the government to control different topics and bias of meaning. A dialogue box for listening should also be added to the website. Moreover, it is important to add sufficient literacy for the community to be wise in social media. Participation provides several statements used as an observation tool on the website *https://situbondokab.go.id*.

**Table 6.** Participation Indicator Observation Results

| Pillar/Indicator | Questions/Statements/Sub Indicators | Observation Results Yes | No |
|---|---|---|---|
| Participation | 1) availability of online questionnaires; | v | |
| | 2) the existence of forums or platforms to provide questions to service providers; | v | |
| | 3) availability of channels for conducting public meetings online; | | v |
| | 4) availability of channels for online voting. | | v |
| | Total | 2 | 2 |
| Percentage of Achievement Indicator/Pillar | | 50% | |

*Source*: *Primary Data, 2022*

The results show that only two of the four sub-indicators on the participation pillar, are on the Situbondo Regency Government website page. The first sub-indicator is the availability of online questionnaires as indicated by the community satisfaction accessing the website. The second indicator is the existence of a form or platform to ask questions to service providers. This is indicated by the social media accounts and call centers that could be contacted. However, this website has not facilitated online public meetings and channels for online voting.

**Figure.16.** Display of Pillar Participation Support Web



*Source*: *Primary Data, 2022*

**Table 7.** E-Government Maturity Pillar Mapping Results

| No. | Pillars of E-Government Maturity according to Fietkiewicz, Mainka, & Stock (2017) | Fulfillment Results |
|---|---|---|
| 1. | Information Dissemination | 66.67% |
| 2. | Communication | 60% |
| 3. | Transaction | 33.33% |
| 4. | Interoperability | 100% |
| 5. | Participation | 50% |
| Average | | 62% |

*Source*: *Primary Data, 2022*

The fulfillment of the Participation pillar from the website *situbondokab.go.id* has reached 50%. However, it is necessary to add a column for direct and real-time discussion forums from users and the government. This would ensure that the essence of participation is felt by both parties.

**CONCLUSION**

This study observed and mapped the E-Government Maturity Pillars on the official website of the Situbondo Regency Government *https://situbondokab.go.id*. The maturity model does not measure E-Government achievement as a stage completion, but analyzes the elements not yet fulfilled.

The fulfillment of the E-Government Maturity Pillar on the Situbondo Regency Website is only 62% of the total supporting elements. However, the integration of links or sites between components and data-sharing makes the interoperability pillar more prominent.

The unfulfilled elements in each pillar could become a concentration for future website development, specifically the transaction pillar, which attained the smallest value. The website should also be a medium for payment transactions for the services provided. Therefore, information on public service transactions could be public, clear, accurate, and easily accounted for.

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