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# THE EFFECT OF THE QUALITY OF THE E-OPEN SERVICE SYSTEM OF THE POPULATION AND CIVIL REGISTRATION SERVICE ON USER SATISFACTION IN BEKASI CITY

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**Abstract**

This study aims to analyze the influence of system quality and electronic service quality on the level of user satisfaction of E-Open services in Bekasi City. This study uses a quantitative approach with a descriptive method. The sampling method applied is two-stage sampling, then analyzed using SmartPLS version 3.2.9 to analyze the relationship between variables. The research findings show that system quality has a positive and significant impact on user satisfaction, indicated by a path coefficient value of 0.566 and an F-square value of 0.364. In addition, electronic service quality is also proven to have a significant effect on user satisfaction, with a path coefficient value of 0.346 and an F-square value of 0.136. Simultaneously, both system quality and electronic service quality together have a significant influence on user satisfaction, with an F-count value reaching 703.767. These results strengthen that improvements in the overall quality of systems and electronic services can encourage increased user satisfaction.

**Keywords:** Electronic Service Quality, E-Open, System Quality, User Satisfaction.

## A. INTRODUCTION

Rapid advances in Information and Communication Technology (ICT) have driven change in various sectors, one of which is the public service sector. The Indonesian government has responded to this dynamic through the implementation of e-government, as stipulated in Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System (SPBE), which aims to improve bureaucratic efficiency, transparency, and administrative accessibility.

Bekasi City, as an area with significant population growth, expected to reach 2.5 million people by 2023, faces demands for more effective public service delivery. To address this need, the Bekasi City Government, through the Population and Civil Registration Office, initiated a digital platform called E-Open, or Electronic Online Population Services, accessible through http://www.e-open.id. This innovation aims to facilitate the public's online access to population services, from electronic ID card registration to service complaints. The implementation of E-Open aligns with the national digital transformation, which is based on the principles of public service: openness, participation, and accountability (Yogiswara, Noak, & Winaya, 2019). According to diskominfo.bekasikota.go.id, data shows that Bekasi City's SPBE Index increased from 2.78 in 2022 to 3.83 in 2024, reflecting the region's commitment to strengthening its technology-based service system. However, several challenges remain in the implementation process, including the decline in the achievement of the Child Identity Card (KIA) population document target since 2020 (LAKIP Bekasi City Population and Civil Registration Office, 2023).

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Problems with e-Open implementation include limited staff numbers and competencies, suboptimal digital infrastructure, and technical system constraints such as network instability and difficulty uploading documents. Furthermore, the public often has negative perceptions of digital systems due to unsatisfactory experiences. This demonstrates that system quality and service quality are central elements in building public satisfaction. Several studies on e-Open have been conducted, including one by Cahya (2022), which found that e-Open significantly positively impacted the quality of population administration services in Bekasi City, involving 100 respondents during the COVID-19 pandemic. Research by Safitri, Yulyana, & Febriantin (2024) shows that e-Open can effectively improve the efficiency and quality of population administration services in Bekasi City, as evidenced by program understanding, goal achievement, tangible changes, and adherence to time targets.

User satisfaction in the context of digital services reflects the success of a system. According to Tjiptono & Diana (2022), satisfaction arises from comparing initial expectations with actual experiences. In this regard, e-Open is required not only to provide final service results but also to ensure a simple, fast, and informative process. Research by Sulma & Zacky W. (2023) shows that system quality and service quality have a positive impact on user satisfaction, despite several shortcomings and areas that need to be addressed.

Based on these conditions, the purpose of this study is to analyze the influence of system quality and electronic service quality on user satisfaction levels for population administration services in Bekasi City. This study also aims to evaluate the effectiveness of e-government implementation as an effort to improve the quality of public services at the local government level.

## B. LITERATURE REVIEW
### System Quality Theory

The quality of a system reflects how information is processed to produce specific outputs. Furthermore, the quality of an information system also reflects user perceptions, which are formed from their experiences interacting with the system over a period of time. In this context, an information system is considered to be of higher quality if users find it easier to use and more useful (Nelson et al., 2005). Nelson et al. (2005) also divide the dimensions of system quality into five parts, including:

- Accessibility: Accessibility indicates how easily a system and the information within it can be accessed with minimal effort.
- Reliability: Reliability refers to how reliable a system is over a given period of time.
- Response Time: Response time is how quickly a system responds to information requests or user actions.
- Flexibility: Flexibility refers to a system's capacity to adapt to various user needs and changing conditions.
- Integration: Integration refers to the extent to which a system can combine data from various sources to support decision-making.

### Electronic Service Quality Theory

According to Parasuraman et al. (2005), e-service quality is defined broadly to encompass all phases of a customer's interactions with a website: the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery. Generally, e-service quality encompasses the entire customer interaction process with a website, specifically the extent to which the website facilitates effective and efficient shopping, purchasing, and delivery. Meanwhile, Vicramaditya (2021) defines e-service quality as a collection of services encompassing various services provided by online companies. These services include information about products or services, distribution processes, transaction or

purchase order procedures, and customer complaint handling. All of these aspects aim to ensure customer convenience and satisfaction in digital transactions.

Based on a study conducted by Parasuraman et al. (2005), there are seven dimensions for measuring e-service quality. These seven dimensions are then divided into four primary dimensions and three recovery dimensions. The following are the 4 (four) main dimensions, namely:

- Efficiency: How easily and quickly users can access and use the site.
- Fulfillment: How well the site fulfills its delivery commitments to customers.
- System availability: The site's technical features and functions work well.
- Privacy: How secure the site is in protecting customer data and information.
- The following are three dimensions of recovery in e-service quality:
- Responsiveness: How quickly and effectively the site handles issues and returns.
- Compensation: The site's responsibility in providing replacements or compensation to consumers in the event of problems.
- Contact: The availability of support facilities via telephone or online media.

**E-Open (Electronic Online Population Services)**

Through the Bekasi City Population and Civil Registration Office (Disdukcapil), the Bekasi City Government has created an innovative e-service program called E-Open (Electronic Online Population Services). E-Open is a digital website accessible through http://www.e-open.id and can be used by all Bekasi City residents for population administration. E-Open was launched in 2017 as an extension of the Simpaduk (Population Services Information System) application. Furthermore, in March 2020, capitalizing on the COVID-19 pandemic, the Bekasi City Population and Civil Registration Office updated the Simpaduk application to E-Open to maximize the digitalization process and avoid crowds during population administration processes.

**User Satisfaction Theory**

According to Tjiptono & Diana (2022), customer satisfaction is considered the outcome obtained through the experience of consuming a particular product or service. Meanwhile, according to Rifa'i (2023), satisfaction is influenced by the difference between perceived performance and user expectations. Consumer expectations are formed from previous experiences, the opinions of others, and information and promises conveyed through various media, which can then influence their assessment of a company. According to Tjiptono & Dian (2022), there are six dimensions in measuring customer satisfaction, including:

- Overall Customer Satisfaction: The most efficient method for determining customer satisfaction is to ask them directly how satisfied or dissatisfied they are with the product or service.
- Dimensions of Customer Satisfaction: Various studies have broken down customer satisfaction into its various elements.
- Confirmation of Expectations: In this concept, satisfaction is not measured directly, but is inferred through a comparison between customer expectations and the actual performance of the company's product based on various attributes or dimensions deemed important.
- Repurchase Intention: One method for measuring customer satisfaction is to observe their behavior, such as whether they intend to repurchase the same product or continue using the company's services in the future.
- Willingness to Recommend: For products or services with relatively infrequent or one-time repeat purchases, a customer's willingness to recommend them to family and friends serves as an important indicator that deserves analysis and follow-up.

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- Customer Dissatisfaction: Some customer satisfaction experts argue that the understanding and assessment of customer satisfaction to date is often based on the perspective of customer dissatisfaction.

## C. RESEARCH METHODOLOGY

This research employs a quantitative approach. As explained by Sugiyono (2022), this approach aims to examine a predetermined population or sample using standardized research instruments, then subject it to statistical analysis to test the validity of the hypotheses formulated in this study. The method employed was descriptive, as the researcher sought to gain an in-depth understanding of efforts to improve service quality through the E-Open program implemented by the Bekasi City Population and Civil Registration Office (Disdukcapil). This descriptive analysis enabled the researcher to determine the effectiveness of E-Open in increasing the efficiency and effectiveness of public services. The data used were quantitative, with primary and secondary sources. Primary data were obtained by distributing questionnaires to 400 Bekasi City residents who had used the E-Open website. Meanwhile, secondary data were obtained from relevant documents and literature, such as relevant laws and regulations, government regulations, and performance reports from the Bekasi City Population and Civil Registration Office. Data collection techniques included questionnaires, literature studies, and document studies.

The population in this study was the entire population of Bekasi City, totaling 2,513,669 people, with sampling using two-stage sampling. In the first stage, a purposive sampling technique was used, followed by random sampling in the second stage. The final number of respondents was calculated using the Slovin formula, resulting in 400 respondents. This study analyzed three main variables: System Quality (X1), Electronic Service Quality (X2), and User Satisfaction (Y), each with various dimensions and indicators measured using a Likert scale. Data analysis used SEM-PLS version 3.2.9, which was chosen for its ability to handle more complex models. In this study, a second-order model was used, where a construct is formed by other constructs. The test was carried out by assessing indicators of reliability (outer loading), internal consistency (Cronbach's Alpha and Composite Reliability), convergent validity, discriminant validity, F-test, path coefficients, coefficient of determination, effect size, and evaluating Standardized Root Mean Square (SRMR). Ethical considerations, including confidentiality and participant consent, were upheld in this study. Limitations such as sample bias and potential response bias were acknowledged to increase transparency and validity of the findings.

## D. RESULT AND DISCUSSION

The descriptive analysis of 400 respondents presented in Table 1 shows that 80.5% of respondents were female, 79.5% were between the ages of 17 and 25, and the largest number of respondents resided in South Bekasi District (18.25%). The most frequently received service was reporting lost ID cards (23.5%), and all respondents had used E-Open 100%.

Table 1. Respondent Description

| Description | Category | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 78 | 19.55 |
| | Female | 322 | 80.5% |
| Age | | | |
| | 17 – 25 years | 318 | 79.5% |
| Domicile | 26 – 34 years | 55 | 13.75% |
| | 35 – 43 years | 15 | 3.75% |
| Type of Service Received | 44 – 52 years | 9 | 2.25% |
| | >53 years | 3 | 0.75% |

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| | | | |
|---|---|---|---|
| Usage Status | | | |
| Description | Bantargebang | 28 | 7% |
| Gender | West Bekasi | 39 | 9.75% |
| | South Bekasi | 73 | 18.25% |
| Age | East Bekasi | 43 | 10.75% |
| | North Bekasi | 31 | 7.75% |
| Domicile | Jatiasih | 38 | 9.5% |
| | Jatisampurna | 21 | 5.25% |
| Type of Service Received | Medansatria | 19 | 4.75% |
| | Mustikajaya | 17 | 4.25% |
| Usage Status | Pondok Gede | 35 | 8.75% |
| Description | Pondokmelati | 35 | 8.75% |
| Gender | Rawalumbu | 21 | 5.25% |
| | | | |
| Age | Issuing a birth certificate | 19 | 4.75% |
| | Issuing a death certificate | 5 | 1.25% |
| Domicile | Issuing a family card | 38 | 9.5% |
| | Issuing an electronic ID card | 87 | 21.75% |
| Type of Service Received | Replacing an electronic ID card photo | 40 | 10% |
| | Lost ID card | 94 | 23.5% |
| Usage Status | Damaged ID card | 79 | 19.75% |
| Description | Changes to ID card data | 9 | 2.25% |
| Gender | Changes to family card data | 6 | 1.5% |
| | Moving domicile between districts in Bekasi City | 5 | 1.25% |
| Age | Moving domicile outside Bekasi City | 18 | 4.5% |
| | | | |
| Domicile | Ever used E-Open | 400 | 100% |
| | Never used E-Open | 0 | 0% |
| | Total | 400 | 100% |

Source: Data Processed by Researchers (2025)

## Evaluation of Measurement Model (Outer Model)

The outer model (measurement model) in the first order is a measurement model that specifically describes the causal relationship or relationship between latent variables and their indicators (Hair et al. 2022).
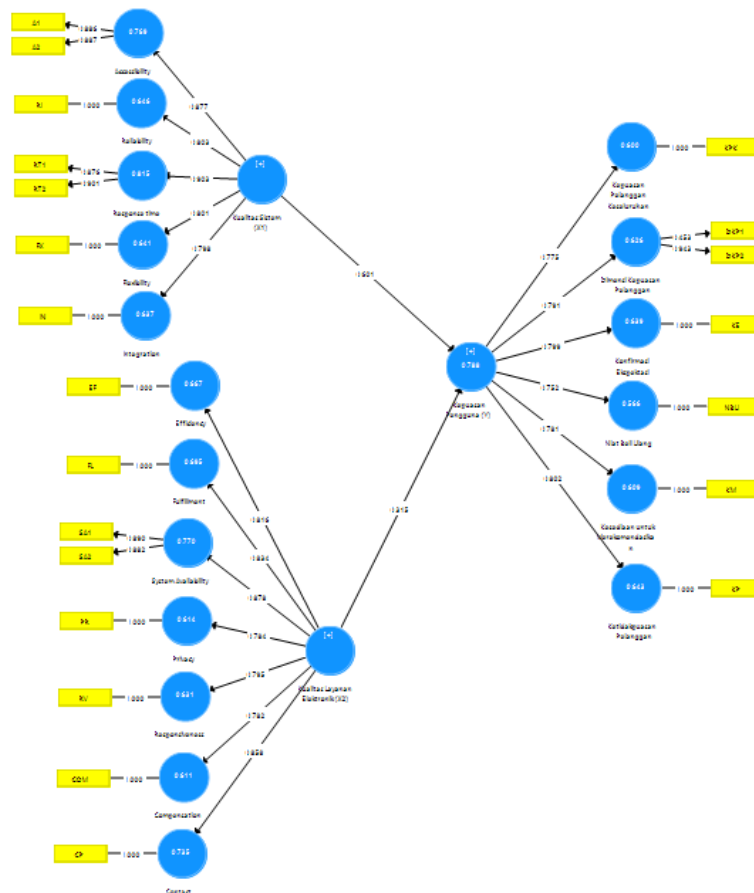
## Indicator Reliability



Figure 1. Outer Model before outliers in First Order
Source: SmartPLS 3.2.9 Data Processing Results (2025)

Based on the data processing results, one indicator was found to have an outer loading value <0.70, with an outer loading value of 0.453. According to Hair et al. (2022), evaluation of indicators with values below 0.70 is necessary.
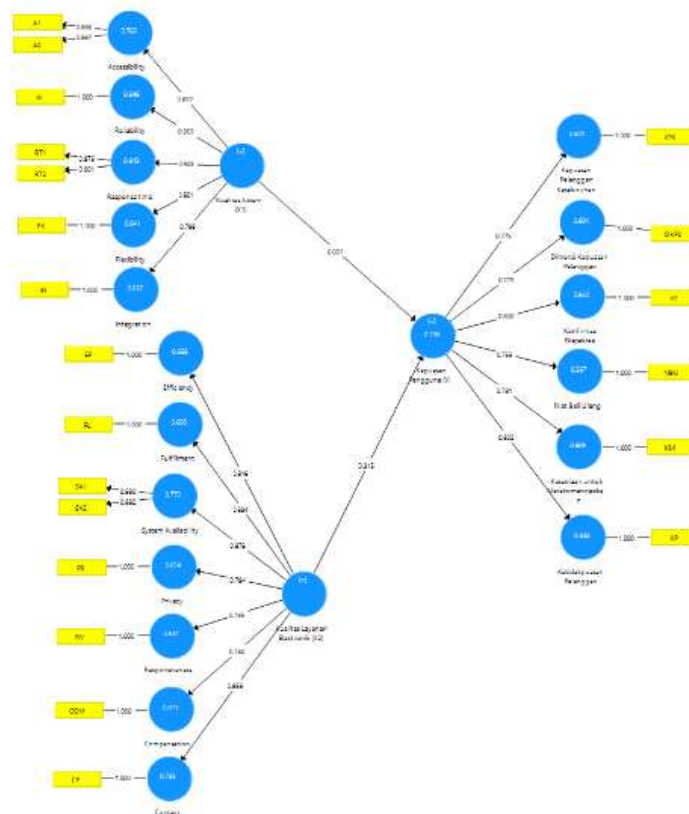
Figure 2. Outer Model After First-Order Outliers
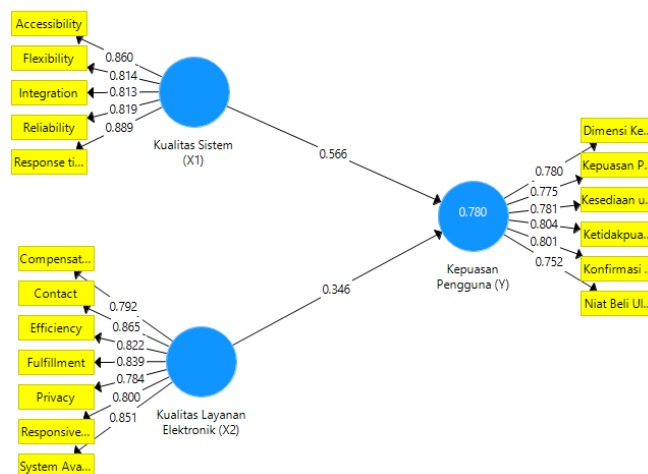Source: SmartPLS 3.2.9 Data Processing Results (2025)



Figure 3. Second Order
Source: SmartPLS 3.2.9 Data Processing Results (2025)

In the second-order stage, researchers used the loading factor values obtained from the latent variables in the first-order stage. A loading factor value above 0.70 is considered good.

**Internal Consistency Reliability**

Table 2. Internal Consistency Reliability in First Order

| No. | Dimensions | Cronbach's Alpha | Composite Reliability | Information |
|---|---|---|---|---|
| X1 | Accessibility | 0.727 | 0.880 | Reliable |

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|  | Reliability | 1.000 | 1.000 | Reliable |
|---|---|---|---|---|
|  | Response Time | 0.735 | 0.883 | Reliable |
|  | Flexibility | 1.000 | 1.000 | Reliable |
|  | Integration | 1.000 | 1.000 | Reliable |
|  | Efficiency | 1.000 | 1.000 | Reliable |
| X2 | Fulfillment | 1.000 | 1.000 | Reliable |
|  | System Availability | 0.726 | 0.879 | Reliable |
|  | Privacy | 1.000 | 1.000 | Reliable |
|  | Responsiveness | 1.000 | 1.000 | Reliable |
|  | Compensation | 1.000 | 1.000 | Reliable |
|  | Contact | 1.000 | 1.000 | Reliable |
| Y | Overall customer satisfaction | 1.000 | 1.000 | Reliable |
|  | Customer satisfaction dimensions | 1.000 | 1.000 | Reliable |
|  | Confirmation of expectations | 1.000 | 1.000 | Reliable |
|  | Repurchase intention | 1.000 | 1.000 | Reliable |
|  | Willingness to recommend | 1.000 | 1.000 | Reliable |
|  | Customer dissatisfaction | 1.000 | 1.000 | Information |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

The table above shows that the Cronbach's Alpha and Composite Reliability values are greater than 0.70. Therefore, it can be concluded that each indicator has a high level of reliability.

Table 3. Internal Consistency Reliability in Second Order

| Variables | Cronbach's Alpha | Composite Reliability | Information |
|---|---|---|---|
| System Quality (X1) | 0.895 | 0.923 | Reliabel |
| Electronic Service Quality (X2) | 0.920 | 0.936 | Reliabel |
| User Satisfaction (Y) | 0.873 | 0.904 | Reliabel |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

## Convergent Validity

Table 4. AVE Values in First Order

| No. | Dimensions | AVE | Information |
|---|---|---|---|
| 1 | Accessibility | 0.786 | Valid |
| 2 | Reliability | 1.000 | Valid |
| 3 | Response Time | 0.790 | Valid |
| 4 | Flexibility | 1.000 | Valid |
| 5 | Integration | 1.000 | Valid |
| 6 | Efficiency | 1.000 | Valid |
| 7 | Fulfillment | 1.000 | Valid |
| 8 | System Availability | 0.785 | Valid |
| 9 | Privacy | 1.000 | Valid |
| 10 | Responsiveness | 1.000 | Valid |
| 11 | Compensation | 1.000 | Valid |
| 12 | Contact | 1.000 | Valid |
| 13 | Overall Customer Satisfaction | 1.000 | Valid |
| 14 | Customer Satisfaction Dimensions | 1.000 | Valid |
| 15 | Confirmation of Expectations | 1.000 | Valid |

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| 16 | Repurchase Intention | 1.000 | Valid |
|----|----------------------|-------|-------|
| 17 | Willingness to Recommend | 1.000 | Valid |
| 18 | Customer Dissatisfaction | 1.000 | Valid |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

This test is conducted by determining the Average Variance Extracted (AVE) value. According to Hair et al. (2022), an AVE value of 0.50 or higher indicates that the construct is able to explain more than half of the variance in its indicators. Therefore, it can be concluded that all constructs have valid values.

Table 5. AVE Values in Second Order

| Variables | AVE |
|-----------|-----|
| System Quality (X1) | 0.705 |
| Electronic Service Quality (X2) | 0.676 |
| User Satisfaction (Y) | 0.612 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

**Discriminant Validity**

Table 6. Cross Loading in First Order

| | A | COM | CP | DKP | EF | FL | FX | IN | KE | KM | KP | KPK | NBU | PR | RI | RT | RV | SA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A1 | **0.886** | 0.482 | 0.564 | 0.470 | 0.510 | 0.526 | 0.562 | 0.550 | 0.511 | 0.566 | 0.578 | 0.584 | 0.464 | 0.479 | 0.555 | 0.615 | 0.547 | 0.548 |
| A2 | **0.887** | 0.507 | 0.619 | 0.556 | 0.521 | 0.537 | 0.558 | 0.519 | 0.629 | 0.567 | 0.586 | 0.509 | 0.569 | 0.500 | 0.579 | 0.629 | 0.571 | 0.576 |
| COM | 0.558 | **1.000** | 0.632 | 0.532 | 0.599 | 0.653 | 0.552 | 0.550 | 0.522 | 0.615 | 0.510 | 0.536 | 0.509 | 0.524 | 0.554 | 0.614 | 0.528 | 0.608 |
| CP | 0.670 | 0.634 | **1.000** | 0.604 | 0.664 | 0.668 | 0.628 | 0.627 | 0.630 | 0.557 | 0.637 | 0.567 | 0.568 | 0.600 | 0.640 | 0.743 | 0.685 | 0.694 |
| DKP2 | 0.581 | 0.532 | 0.604 | **1.000** | 0.539 | 0.573 | 0.541 | 0.552 | 0.516 | 0.492 | 0.547 | 0.565 | 0.539 | 0.511 | 0.583 | 0.609 | 0.544 | 0.560 |
| EF | 0.581 | 0.599 | 0.664 | 0.539 | **1.000** | 0.628 | 0.526 | 0.603 | 0.582 | 0.514 | 0.571 | 0.544 | 0.464 | 0.607 | 0.527 | 0.625 | 0.590 | 0.652 |
| FL | 0.600 | 0.653 | 0.668 | 0.573 | 0.628 | **1.000** | 0.625 | 0.680 | 0.548 | 0.538 | 0.565 | 0.492 | 0.602 | 0.583 | 0.646 | 0.616 | 0.662 | |
| FX | 0.631 | 0.552 | 0.628 | 0.541 | 0.526 | 0.625 | **1.000** | 0.604 | 0.516 | 0.540 | 0.479 | 0.456 | 0.501 | 0.577 | 0.644 | 0.565 | 0.590 | |
| IN | 0.603 | 0.550 | 0.627 | 0.552 | 0.603 | 0.680 | 0.604 | **1.000** | 0.516 | 0.543 | 0.550 | 0.553 | 0.463 | 0.543 | 0.548 | 0.680 | 0.551 | 0.631 |
| KE | 0.643 | 0.522 | 0.630 | 0.516 | 0.582 | 0.548 | 0.516 | 0.516 | **1.000** | 0.542 | 0.644 | 0.502 | 0.539 | 0.521 | 0.561 | 0.670 | 0.545 | 0.535 |
| KM | 0.639 | 0.615 | 0.557 | 0.492 | 0.514 | 0.538 | 0.510 | 0.542 | 0.542 | **1.000** | 0.524 | 0.585 | 0.524 | 0.484 | 0.536 | 0.641 | 0.466 | 0.519 |
| KP | 0.655 | 0.510 | 0.637 | 0.547 | 0.571 | 0.525 | 0.545 | 0.550 | 0.644 | 0.524 | **1.000** | 0.535 | 0.500 | 0.557 | 0.569 | 0.667 | 0.549 | 0.566 |
| KPK | 0.619 | 0.536 | 0.567 | 0.565 | 0.545 | 0.562 | 0.479 | 0.553 | 0.502 | 0.585 | 0.535 | **1.000** | 0.463 | 0.448 | 0.515 | 0.585 | 0.476 | 0.505 |
| NBU | 0.583 | 0.506 | 0.568 | 0.539 | 0.464 | 0.492 | 0.456 | 0.463 | 0.539 | 0.524 | 0.500 | 0.463 | **1.000** | 0.473 | 0.528 | 0.563 | 0.522 | 0.542 |
| PR | 0.552 | 0.529 | 0.600 | 0.511 | 0.600 | 0.602 | 0.501 | 0.543 | 0.529 | 0.484 | 0.557 | 0.447 | 0.473 | **1.000** | 0.523 | 0.572 | 0.561 | 0.651 |
| RI | 0.639 | 0.554 | 0.640 | 0.583 | 0.527 | 0.583 | 0.577 | 0.548 | 0.561 | 0.536 | 0.569 | 0.524 | 0.528 | 0.523 | **1.000** | 0.675 | 0.554 | 0.592 |
| RT1 | 0.576 | 0.517 | 0.639 | 0.520 | 0.535 | 0.556 | 0.513 | 0.541 | 0.601 | 0.505 | 0.568 | 0.486 | 0.505 | 0.498 | 0.588 | **0.876** | 0.558 | 0.539 |
| RT2 | 0.668 | 0.572 | 0.679 | 0.562 | 0.574 | 0.590 | 0.627 | 0.662 | 0.591 | 0.629 | 0.616 | 0.552 | 0.492 | 0.527 | 0.610 | **0.901** | 0.602 | 0.620 |
| RV | 0.631 | 0.528 | 0.685 | 0.544 | 0.590 | 0.616 | 0.565 | 0.551 | 0.545 | 0.466 | 0.549 | 0.476 | 0.522 | 0.561 | 0.554 | 0.653 | **1.000** | 0.632 |
| SA1 | 0.523 | 0.589 | 0.608 | 0.481 | 0.575 | 0.591 | 0.524 | 0.571 | 0.458 | 0.453 | 0.485 | 0.437 | 0.469 | 0.626 | 0.516 | 0.563 | 0.546 | **0.890** |
| SA2 | 0.602 | 0.487 | 0.623 | 0.512 | 0.577 | 0.582 | 0.522 | 0.547 | 0.491 | 0.468 | 0.518 | 0.458 | 0.492 | 0.526 | 0.534 | 0.595 | 0.574 | **0.882** |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

The table above shows that each indicator has the highest factor loading value for its own construct compared to other constructs. This indicates that the indicator represents the construct well.

Table 7. Fornell-Larcker Criterion in Second Order

|  | *User Satisfaction (Y)* | *Electronic Service Quality (X2)* | *System Quality (X1)* |
|---|---|---|---|
| User Satisfaction (Y) | 0.882 |  |  |
| Electronic Service Quality (X2) | 0.837 | 0.872 |  |
| System Quality (X1) | 0.866 | 0.866 | 0.889 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

Based on the analysis results in the table above, it can be concluded that the discriminant validity of this model is met. This is evidenced by the AVE root value for each variable being greater than its correlation value with other variables.

**Structural Model Evaluation (Inner Model)**

The inner model is used to test hypotheses and assess the strength and direction of influence between constructs in the research model.

**Collinearity Assessment**

Table 8. Variance Inflation Factor (VIF) Values in the Inner Model

| *No.* | *Dimensi* | *VIF* |
|---|---|---|
| 1 | Accessibility | 2.410 |
| 2 | Reliability | 2.104 |
| 3 | Response Time | 2.895 |
| 4 | Flexibility | 2.075 |
| 5 | Integration | 2.099 |
| 6 | Efficiency | 2.309 |
| 7 | Fulfillment | 2.529 |
| 8 | System Availability | 2.692 |
| 9 | Privacy | 2.063 |
| 10 | Responsiveness | 2.210 |
| 11 | Compensation | 2.116 |
| 12 | Contact | 2.877 |
| 13 | Overall Customer Satisfaction | 1.894 |
| 14 | Customer Satisfaction Dimensions | 1.864 |
| 15 | Confirmation of Expectations | 2.054 |
| 16 | Repurchase Intention | 1.746 |
| 17 | Willingness to Recommend | 1.885 |
| 18 | Customer Dissatisfaction | 2.054 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

Based on the results in the table above, all dimensions in the three variables have VIF values below 5, with a range between 1.746 and 2.895. This indicates that the model does not experience significant multicollinearity issues.

## Coefficient of Determination ($R^2$ Value)

Table 9. Coefficient of Determination (R2 Value) in the Inner Model

|  | *R Square* | *R Square Adjusted* |
|---|---|---|
| User Satisfaction (Y) | 0.780 | 0.779 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

The analysis results show that the R² value is 0.780, which means that 78% of the variation in User Satisfaction (Y) can be explained by the System Quality (X1) and Electronic Service Quality (X2) variables. In other words, these two variables have a significant influence on the level of user satisfaction. In addition, the Adjusted R² value of 0.779 indicates that, after considering the number of variables in the model, the results remain consistent without significant changes. This indicates that the applied model has adequate power and is able to describe the relationship between variables effectively.

**Uji F**

The F test aims to evaluate the overall significance of the model, namely to determine whether the independent variables simultaneously have a significant effect on the dependent variable.

$$F = \frac{R^2/K}{(1-R^2)/(n-k-1)}$$

Description:
R2 = R-Square value of the PLS-SEM model
K = Number of exogenous variables
n = Number of samples

$$F = \frac{(0.780)/2}{(1-(0.780))/(400-2-1)}$$

$$F = \frac{0.39}{(1-(0.780))/397}$$

$F = 703.767$

Based on the results of the F test of 703,767 with a significance level of 0.05, it has a test criterion to reject H0 if Pvalue $<\alpha$ and Fcount > Ftable. Based on the calculation, the Fcount value is 703,767 and Ftable is 3.02, because Fcount > Ftable then H0 is rejected. Thus, the model has a very high significance, which means that the independent variables in this model together significantly influence the dependent variable.
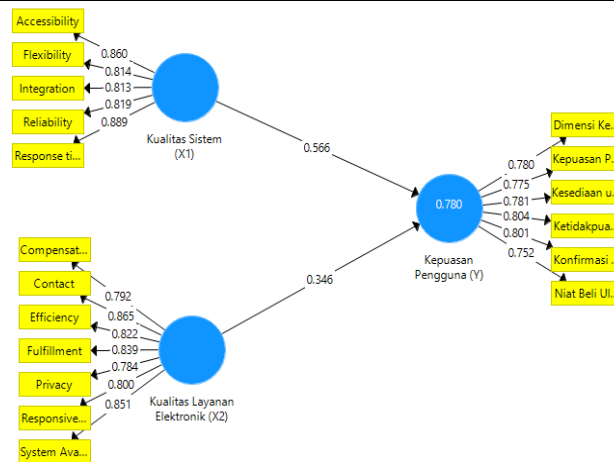
**Path Coefficients**

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Figure 4. Bootstrapping Results on the Inner Model
Source: SmartPLS 3.2.9 Data Processing Results (2025)

Table 10. Path Coefficients in the Inner Model

| | Original Sample (O) | Standard Deviation (STDEV) | T-Statistics (|O/STDEV|) | P-values |
|---|---|---|---|---|
| System Quality (X1) → User Satisfaction (Y) | 0.566 | 0.072 | 7.849 | 0.000 |
| Electronic Service Quality (X2) → User Satisfaction (Y) | 0.346 | 0.072 | 4.839 | 0.000 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

Based on the results of the table above, it can be concluded that a one-unit increase in System Quality (X1) will increase User Satisfaction (Y) by 0.566, indicating that System Quality has a strong positive influence on User Satisfaction. This means that the higher the system quality, the greater the increase in User Satisfaction. The T-Statistic value is 7.849, which is significantly greater than the significance limit of 1.96, and the P-Value is 0.000 ($<0.05$). This indicates that the relationship between System Quality and User Satisfaction is highly significant in the model, or the hypothesis is accepted.

Furthermore, a one-unit increase in Electronic Service Quality (X2) will increase User Satisfaction (Y) by 0.346, indicating that Electronic Service Quality also has a positive and significant influence on User Satisfaction, albeit with a smaller effect than System Quality. The T-Statistic value shows a value of 4.839 with a P-Value of 0.000, which indicates a significant relationship or the hypothesis is accepted. This means that the better the Quality of Electronic Services provided, the higher the Satisfaction of E-Open Users in Bekasi City, but with a more moderate impact compared to System Quality.

**Effect Size**

Table 11. F-Square in the Inner Model

| | User Satisfaction (Y) |
|---|---|
| System Quality (X1) | 0.364 |
| Electronic Service Quality (X2) | 0.136 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

Based on the table above, it can be concluded that the F-Square value for the System Quality variable has a large effect on the User Satisfaction variable of 0.364, which means

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that System Quality has a significant effect on increasing User Satisfaction. Meanwhile, Electronic Service Quality has a small effect on User Satisfaction of 0.136. Nevertheless, Electronic Service Quality still contributes to User Satisfaction, but its influence is not as large as System Quality..

**Evaluation of Standardized Root Mean Square (SRMR)**

Table 12. Standardized Root Mean Square (SRMR)

|  | **Estimated Model** |
|---|---|
| SRMR | 0.046 |

Source: SmartPLS 3.2.9 Data Processing Results (2025)

Based on the table above, the research model has an SRMR value of 0.046, which is below the threshold of 0.08. This indicates that the tested model has a good level of fit.

## E.  CONCLUSION

Based on the results of data analysis and discussion using the Structural Equation Modeling - Partial Least Squares (SEM-PLS) method, the following conclusions can be drawn: The Effect of System Quality (X1) on User Satisfaction (Y). The results show that E-Open System Quality (X1) significantly influences User Satisfaction (Y) in Bekasi City, with a path coefficient of 0.566 and a T-statistic of 7.751. The Effect of Electronic Service Quality (X2) on User Satisfaction (Y). Electronic Service Quality (X2) on the E-Open website positively influences User Satisfaction (Y) in Bekasi City, with a path coefficient of 0.346 and a T-statistic of 4.711. Although its influence is smaller than System Quality (X1), this variable still contributes to increasing User Satisfaction.

The Effect of System Quality (X1) and Electronic Service Quality (X2) on User Satisfaction (Y), Simultaneously, System Quality (X1) and Electronic Service Quality (X2) have a significant effect on User Satisfaction (Y) with an F test value of 308,394. The high level of satisfaction and minimal complaints indicate that E-Open functions optimally in supporting digital population administration services in Bekasi City.

## REFERENCE

Admin. (2025). *Kota Bekasi Raih Peningkatan Prestasi Penilaian Spbe Kemenpan Rb Dan Kota Cerdas Kemenkomdigi Ri*. Diskominfostandi Kota Bekasi. Https://Diskominfo.Bekasikota.Go.Id/Content/Berita-Terkini/7843/Kota-Bekasi-Raih-Pe ningkatan-Prestasi-Penilaian-Spbe-Kemenpan-Rb-Dan-Kota-Cerdas-Kemenkomdigi-Ri

Administrator. (2024). *Sistem E-Government Pacu Kualitas Pelayanan Di Daerah*. Indonesia.Go.Id. Https://Indonesia.Go.Id/Kategori/Editorial/8870/Sistem-E-Government-Pacu-Kualitas-Pe layanan-Di-Daerah

Afrilliana, N. (2020). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pelanggan Grab Di Kota Palembang. *Jurnal Nasional Manajemen Pemasaran & Sdm*, *1*(2), 46–55. Https://Doi.Org/10.47747/Jnmpsdm.V1i2.119

Aini, I., & Gernaria, E. (2022). *Analisis Sistem Pelayanan Administrasi Kependudukan Berbasis Aplikasi E-Open Di Kelurahan Pejuang Kota Bekasi*. 2.

Arfian, D. (2024). *Bekasi Jadi Kota Terkaya*. Radarbekasi. Https://Radarbekasi.Id/2024/09/27/Bekasi-Jadi-Kota-Terkaya/

Badan Pusat Statistik Kota Bekasi. (2024a). *Luas Wilayah Di Kota Bekasi*. Https://Bekasikota.Bps.Go.Id/Id/Statistics-Table/2/Mzqjmg==/Luas-Wilayah-.Html

Badan Pusat Statistik Kota Bekasi. (2024b). *Statistik Daerah Kota Bekasi 2024*. 32.

ARTICLE

Cahya, R. A. D. (2022). *Pengaruh Inovasi Pelayanan Publik Melalui Aplikasi Elektronik Online Pelayanan Kependudukan (E-Open) Terhadap Kualitas Pelayanan Di Kota Bekasi Era Pandemi Covid-19*.

Darmawan, A. D. (2025). *Pdrb Adhb Di Kota Bekasi Menurut Sektor Pada 2023*. Databooks. Https://Databoks.Katadata.Co.Id/Ekonomi-Makro/Statistik/Ac56301b22ce85d/Sektor-Utama-Penggerak-Perekonomian-Di-Kota-Bekasi-Pada-2023

Dinas Kependudukan Dan Pencatatan Sipil Kota Bekasi. (2016). *Ranjangan Rencana Kerja Dinas Kependudukan Dan Pencatatan Sipil Kota Bekasi Tahun 2024*. 1–23.

Dinas Kependudukan Dan Pencatatan Sipil Kota Bekasi. (2023). *Laporan Kinerja Instansi Pemerintah Tahun 2023*.

Firdaus, R., Sartika, D., & Nurhasanah. (2024). *Pengaruh Kualitas Sistem Informasi, Kualitas Informasi Dan Kualitas Layanan Terhadap Kepuasan Pengguna Sistem Kepabeanan*. *9*(10), 1–23.

Hair, J. F., Hult, G. T., Ringle, C., & Sarstedt, M. (2017). A Primer On Partial Least Squares Structural Equation Modeling (Pls-Sem) - Joseph F. Hair, Jr., G. Tomas M. Hult, Christian Ringle, Marko Sarstedt. In *Sage* (2nd Ed.).

Hair, J. F., Hult, G. T., Ringle, C., & Sarstedt, M. (2022). *Partial Least Squares Structural Equation Modeling (Pls-Sem)* (3rd Ed.).

Indrajit, R. E. (2016). Konsep Dan Strategi Electronic Government. *Electronic Government*, *84*, 1–166. Https://Www.Academia.Edu/30100450/Electronic_Government

Indrasari, M. (2019). *Pemasaran & Kepuasan Pelanggan* (1st Ed.). Unitomo Press.

Jihadi, F. A., & Purnamasari, H. (2023). Implementasi Kebijakan Pelyanan Administrasi Kependudukan Melalui E-Open Di Kota Bekasi (Studi Kasus Pada Kelurahan Pengasinan Kecamtan Rawalumbu Kota Bekasi). *Dinamika: Jurnal Ilmiah Ilmu Administrasi Negara*, *10*(08), 340–349.

La Adu, Arifin, Hartanto, R., & Fauziati, S. (2022). Hambatan-Hambatan Dalam Implemetasi Layanan Sistem Pemerintahan Berbasis Elektronik (Spbe) Pada Pemerintah Daerah. *Jiko (Jurnal Informatika Dan Komputer)*, *5*(3), 215–223. Https://Doi.Org/10.33387/Jiko.V5i3.5344

Malawat, S. (2022). Buku Pengantar Administrasi Publik. In *Buku Ajar Pengantar Administrasi Publik*. Http://Eprints.Uniska-Bjm.Ac.Id/13213/1/Buku Pengantar Administrasi Publik.Pdf

Mulyawan, R. (2016). *Birokrasi Dan Pelayanan Publik*. Unpad Press.

Mundir, H. (2012). Statistik Pendidikan. In *A Psicanalise Dos Contos De Fadas. Tradução Arlene Caetano*. Stain Jember Press.

Natika, L. (2024). *Transformasi Pelayanan Publik Di Era Digital: Menuju Pelayanan Masa Depan Yang Lebih Baik*. *6*(1), 1–11.

Nelson, R. R., Todd, P. A., & Wixom, B. H. (2005). Antecedents Of Information And System Quality: An Empirical Examination Within The Context Of Data Warehousing. *Journal Of Management Information Systems*, *21*(4), 199–235. Https://Doi.Org/10.1080/07421222.2005.11045823

Nuhadriel, Y., & Keni, K. (2022). System Quality Dan Faktor Lainnya Untuk Memprediksi Behavioral To Subscribe Pelanggan Layanan Online Streaming. *Jurnal Bisnis Dan Akuntansi*, *24*(1), 157–170. Http://Jurnaltsm.Id/Index.Php/Jba

Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-Qual A Multiple-Item Scale For Assessing Electronic Service Quality. *Journal Of Service Research*, *7*(3), 213–233. Https://Doi.Org/10.1177/1094670504271156

Pemerintah Kota Bekasi. (2023a). *Laporan Keterangan Pertanggungjawaban Pemerintah Kota Bekasi Tahun 2023*.

ARTICLE

Pemerintah Kota Bekasi. (2023b). *Laporan Kinerja Instansi Pemerintah Kota Bekasi Tahun 2023*.

Pemerintah Pusat. (2018). Peraturan Presiden Nomor 95 Tahun 2018 Tentang Sistem Pemerintahan Berbasis Elektronik. *Menteri Hukum Dan Hak Asasi Manusia Republik Indonesia*, 110.

Purwanto, A. (2021). *Kota Bekasi: Kota Satelit Yang Jadi Hunian Kaum Urban Dan Sentra Industri*. Https://Kompaspedia.Kompas.Id/Baca/Profil/Daerah/Kota-Bekasi-Kota-Satelit-Yang-Jadi-Hunian-Kaum-Urban-Dan-Sentra-Industri

Rifa'i, Khamdan. (2023). *Kepuasan Konsumen*. Uin Khas Press. Http://Repo.Darmajaya.Ac.Id/2870/5/Bab Ii.Pdf

Romadon, T., & Mukti Ali, M. (2021). The Effect Of Product Quality And Service Quality On E-Learning System User Satisfaction At Mercu Buana University. *Science Journal)*, *19*(1), 11–24.

Rusdy, R. M. I. R., & Flambonita, S. (2023). Penerapan Sistem Pemerintahan Berbasis Elektronik (Spbe) Di Pemerintah Daerah Untuk Mewujudkan Good Governance. *Lex Lata*, *5*(2), 218–239. Https://Doi.Org/10.28946/Lexl.V5i2.2351

Rusmanto, W. (2022). Pelayanan Publik Berbasis Digital Pasca Pandemi Covid-19 Di Kota Bandung. *Jurnal Ilmu Sosial Dan Pendidikan (Jisip)*, *6*(4), 2598–9944. Https://Doi.Org/10.36312/Jisip.V6i4.3904/Http

Rym. (2022). *Sejarah Kota Bekasi Yang Belum Diketahui Banyak Orang*. Https://Radarbekasi.Id/2022/08/05/Sejarah-Kota-Bekasi-Yang-Belum-Diketahui-Banyak-Orang/

Safitri, L., Yulyana, E., & Febriantin, K. (2024). *Efektivitas Pelayanan Administrasi Kependudukan E-Ktp Melalui Aplikasi E-Open Pada Dinas Kependudukan Dan Pencatatan Sipil Kota Bekasi*. *5*(3), 5559–5564.

*Sejarah Kota Bekasi*. (N.D.). Https://Bekasikota.Go.Id/Pages/Sejarah-Kota-Bekasi

Sugiyono. (2022). *Metodologi Penelitian Kuantitatif, Kualitatif Dan R&D*. Alfabeta.

Sulistiyowati, S., Ruru, J., & Londa, V. (2022). Analisis Tingkat Kepuasan Masyarakat Terhadap Pelayanan Publik Di Dinas Pencatatan Sipil Kota Manado. *Jurnal Administrasi Publik*, *Viii*(117), 1–9.

Sulma, A., & Zacky W, A. (2023). Pengaruh Kualitas Sistem Dan Layanan Terhadap Kepuasan Pengguna Aplikasi Siapp Di Kabupaten Sidenreng Rappang. *Jurnal Terapan Pemerintahan Minangkabau*, *3*(2), 155–175. Https://Doi.Org/10.33701/Jtpm.V3i2.3673

Suranto. (2022). Pengaruh Kualitas Sistem, Kualitas Informasi Dan Kualitas Layanan Terhadap Kepuasan Pengguna Sakti Pada Kppn Gorontalo. *Journal Of Comprehensive Science (Jcs)*, *1*(5), 1044–1055. Https://Doi.Org/10.59188/Jcs.V1i5.136

Tanjung, D., Rangkuti, S., & Al Firah, A. F. (2023). Pengaruh Kualitas Pelayanan Dan Penerapan Sistem E-Billing Terhadap Kepuasan Wajib Pajak Di Kantor Pelayanan Pajak Pratama Medan Barat. *Journal Economic Management And Business*, *2*(2), 361–376. Https://Doi.Org/10.46576/Jfeb.V2i2.4175

Tjiptono, F., & Diana, A. (2022). *Manajemen Dan Strategi Kepuasan Pelanggan*. Penerbit Andi Yogyakarna (Anggota Ikapi).

Tui, F. P., Ilato, R., & Katili, A. Y. (2022). Inovasi Pelayanan Publik Melalui E-Government Di Dinas Kependudukan Dan Catatan Sipil Kota Gorontalo. *Publik: Jurnal Manajemen Sumber Daya Manusia, Administrasi Dan Pelayanan Publik*, *9*(2), 254–263. Https://Doi.Org/10.37606/Publik.V9i2.338

Turahmawati, L., & Suryani, E. (2022). Public Service Innovation Based On E-Open Application At Dinas Kependudukan Dan Catatan Sipil Kota Bekasi. *Kybernan: Jurnal*

Ilmiah .… Https://Jurnal.Unismabekasi.Ac.Id/Index.Php/Kybernan/Article/View/4527

*Undang Undang Ri No 25 Tahun 2009*. (2009).

United Nations E-Government Development Database. (2022). *Un E-Government Knowledgebase*. Https://Publicadministration.Un.Org/Egovkb/En-Us/Data/Country-Information/Id/78-Indonesia

Vatolkina, N., Gorbashko, E., Kamynina, N., & Fedotkina, O. (2020). *E-Service Quality From Attributes To Outcomes : The Similarity And Di Ff Erence Between Digital And Hybrid Services*.

Vicramaditya, P. B. (2021). Pengaruh E-Service Quality, Kualitas Informasi Dan Perceived Value Terhadap Loyalitas Pelanggan Melalui Kepuasan Pelanggan Grabbike. *Journal Of Business And Banking*, *10*(2), 325. Https://Doi.Org/10.14414/Jbb.V10i2.2379

Yogiswara, P. K., Noak, P. A., & Winaya, I. K. (2019). Peranan E-Government Dalam Mendukung Transparansi Dan Keterbukaan Informasi Publik (Studi Kasus Website Resmi Pemerintah Kabupaten Klungkung). *Journal Article Citizen Charter*, *1*(2), 3. Www.Klungkungkab.Go.Id.