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# Analysis of Service Quality Factors of Surabaya Single Window Website Using *E-Govqual* and IPA Models

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DATE		ABSTRACT
Accepted: Revised: Published:	The development government to prov through the Surabay online licensing and increasing use of dig from the public reg reliability, and the lim main problem in thi services has met used for improvement. Th services based on the ease of use, trust, in content and display uses a descriptiv questionnaires to 400 and data analysis us method. The results negative gap values, met user expectati simulations, timely s priority quadrant for recommendations for aspects and maintan users.	of digital technology has encouraged the vide electronic-based public services, including a Single Window (SSW) website which provides I non-licensing services. However, amidst the gital services, various complaints are still found garding the accuracy of information, system initations of the interactive features provided. The s study is whether the quality of SSW website r expectations, and what factors are the priority his study aims to evaluate the quality of SSW E-Govqual model which includes six dimensions: interaction environment functionality, reliability, of information, and citizen support. This study e quantitative approach by distributing Drespondents who are residents of Surabaya City, fing the Importance Performance Analysis (IPA) of the study show that all dimensions have indicating that service performance has not fully ions. Several indicators such as calculation ervice, and information accuracy are in the top or improvement. This study provides strategic or the government to improve crucial service in indicators that have been assessed well by
	KEYWORDS	Service Quality, E-Government, Surabaya
		Single Window, E-Govqual, Importance
		Performance Analysis.

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#### **INTRODUCTION**

The rapid and dynamic development of digital technology has brought about major changes globally and influenced various organizational activities in the economic, social, and political fields in an effort to improve performance to achieve goals. This change has also driven the country's economic growth through the application of technology that facilitates organizational activities, although it also raises new challenges due to less than optimal implementation (Smuts et al., 2020). Technological advances are marked by the presence of artificial intelligence, financial technology (fintech), intelligent robots, and big data that drive social integration and deep industrial innovation (Fu, 2022). The Industrial Revolution 4.0 era is the milestone of the most rapid development, where companies are required to have a workforce with new skills that were previously unknown. In addition, the use of technologies such as the Internet of Things (IoT), machine learning, and cloud computing is also increasingly widespread (Kominfo, 2019). Technology is now used in various sectors, including transportation, health, education, trade, and tourism, which emphasizes the importance of technology in modern life (Sahira & Megawati, 2022).

The spread of Covid-19 which began in 2020 has hampered all activities so that people are forced to carry out activities at home with or through online media. During the Covid-19 pandemic, several companies have experienced unprecedented pressure to pursue digital technology integration (Huang et al., 2021). With the increasingly rapid development of technology, people are expected to be accustomed to using this technology so that it will be easier to carry out activities remotely. Technology that has touchless uses is now starting to be widely used, especially in public places. Technology is applied in the government process in order to keep up with changes and developments in the era which are an obligation to meet the needs of an increasingly dynamic society. The use of technology in the field of government is often called *Electronic Government* (*E-Government*) which is implemented by all state agencies, both central and regional government agencies, as well as institutions and agencies outside the government structure (Prasetyawan et al., 2022).

The government's public services that tend to be rigid and less responsive can begin to be overcome with the help of technology. *E-Government* is an important innovation in public administration that utilizes Information and Communication Technology (ICT) to improve the quality of public services (Ramadhan & Arifianti, 2019). According to (Az Zahro et al., 2022), the implementation of *e*- *government* aims to form a clean and transparent government through the use of ICT. Although Indonesia has long developed *e-government*, various improvements are still needed. Several regions have succeeded in implementing it to support the *Smart City* program, one of which is the Surabaya City Government through Surabaya Mayor Regulation Number 5 of 2013 concerning *e-government* services (Amrozi et al., 2022). Since 2002, Surabaya has continued to encourage digital innovation in public services and invites all OPDs to present online services based on websites and mobile applications so that the public can easily access services at any time (Salsabila, 2022). One of the main implementations is the Surabaya Single Window (SSW) system.

In March 2013, the Surabaya City Government launched an integrated service program called Surabaya Single Window (SSW), an online system that makes it easier for residents and investors to access licensing and non-licensing services without having to come to the office. This innovation aims to overcome inefficiencies and delays in services, in accordance with the mandate of the Decree of the Minister of Administrative and Bureaucratic Reform Number 63 of 2003 which encourages the establishment of the One-Stop Integrated Service Unit (*UPTSA*). The SSW service integrates various types of services in one system, as regulated in Presidential Regulation Number 27 of 2009 concerning One-Stop Integrated Services (*PTSP*). The licensing process is carried out centrally, from application to issuance of documents. The SSW website is an innovative solution in accelerating licensing services, encouraging people to become accustomed to technology, and supporting the *Smart City* program in the City of Surabaya.

The public policy of the city of Surabaya must be very adaptive to current conditions because it has a community with a relatively large level of internet usage. The SSW website was launched in 2013 and continues to grow until 2022. In the first four years of the creation of the SSW website, it only focused on seven services. From 2013 to 2022, the number of services continued to grow to more than 400 (Rachman, 2023). This website is one of the *e-government* websites in Surabaya that is directly connected to the community and of course it does not rule out the possibility of experiencing an increase in complaints. This provides evidence that the increase in complaints submitted has increased community participation (Tri & Septi, 2022).

Therefore, an evaluation is needed to improve the quality of service and support the success of the Surabaya Single Window (SSW) website. Good public services must be able to meet the expectations and needs of the community. The quality of service felt by the community is determined by professionalism, clarity of procedures, politeness, regularity, and certainty of time and cost (Maulani, 2020). This study uses the *E-Govqual* model developed by (Prasetyo et al., 2023), with six main variables: Ease of Use (KP), Trust (KC), Interaction Environment

Functionality (FI), Reliability (KA), Content and Information Display (IT), and Citizen Support (DW). *E-Govqual* is specifically designed to assess government websites or portals and is recommended for respondents who have high potential in utilizing *e-government* services. The focus of this study is to identify service quality factors on the SSW website with a scope of respondents from the Surabaya City community, considering that this site is a major innovation in the field of online licensing and non-licensing services by the Surabaya City Government.

#### **RESEARCH METHOD**

Literature study is used in this study to collect and analyze information from various relevant sources, such as books, scientific articles, theses, and regulations related to technology acceptance, *e-government* service quality, the Surabaya Single Window (SSW) website, and the *E-Govqual* model (Febrianto & Siroj, 2024). This method provides a theoretical basis and comparative material that supports the research. The model used is adapted from (Prasetyo et al., 2023), namely *E-Govqual*, with six main variables: User Ease (KP), Trust (KC), Interaction Environment Functionality (FI), Reliability (KA), Information Content and Display (IT), and Citizen Support (DW).



Figure 1. E-Govqual Method

The image above shows six independent variables that act as direct determinants of service quality along with their definitions according to (Prasetyo et al., 2023) as follows:

- a. Ease of Use: ease of use of the site and the quality of information provided.
- b. **Trust:** the extent to which users believe that the site is safe from interference and protects personal information.
- c. **Interaction Environment Functionality:** the internal role of the manager in providing the information needed by users.
- d. **Reliability:** the feasibility and speed of accessing, using, and receiving services from the site.

- e. **Information Content and Display:** the quality of information displayed, including the use of appropriate colors, graphics, and page sizes.
- f. Citizen Support: the site's response to accommodating criticism, suggestions, requests for information, complaints, and appreciation from users.

The problem in this study stems from changes in people's habits during the pandemic that encourage the use of digital public services through the Surabaya Single Window (SSW) website. Literature studies show obstacles such as lack of understanding of licensing procedures, weak coordination between Regional Work Units (*SKPD*), and limited supporting facilities. Therefore, an evaluation of the quality of SSW services is needed using the *E-Govqual* model to identify the factors that influence it. In this quantitative study, data were obtained from primary and secondary sources (Abdullah et al., 2022). Primary data were collected through questionnaires distributed online to 400 respondents via Google Form, as well as interviews with the Surabaya City Communication and Informatics Office to dig deeper into information related to SSW services.

Observations were conducted by directly observing the use of the website to understand its functions and services. This technique was used together with questionnaires and interviews to obtain comprehensive data. Secondary data were obtained from the Surabaya City Population and Civil Registration Service (*DISDUKCAPIL*) and various previous studies related to the quality of Surabaya Single Window (SSW) website services. The data include written documents, digital copies, images, videos, and other electronic documents. The use of this data aims to support the research process and increase the credibility of the results. The research population includes all SSW website users in Surabaya City, who have characteristics relevant to the research problem (Candra Susanto et al., 2024). Based on 2023 data, the population of Surabaya City reached 3,009,286 people spread across 31 sub-districts.

This study uses a Non-Probability Sampling technique of the Purposive Sampling type, namely subjective sample selection based on certain objectives, because population data is not known with certainty (Hardani et al., 2020). Sampling was carried out considering the large population and limited time, cost, and resources. In addition, in a homogeneous population, examining all elements is inefficient. The number of samples was determined using the Slovin formula, with the result of 400 respondents and a margin of error of 5% (0.05). This margin was chosen because the research is in the socio-cultural realm, where an error tolerance of 5% is still considered reasonable (Ragil Tri Wahyudi & Gusmelia Testiana, 2022).

#### **RESULT AND DISCUSSION**

## **Respondent Demographic Data**

The demographic data of respondents in this study describes the characteristics of respondents which include information on gender, age, Surabaya area and intensity of use. These data are used to determine the background of respondents and as supporting information in compiling infographics.

Of the 400 respondents, the majority were female, 259 people (65%), while 141 people were male (35%). Most respondents were aged 24–29 years (48%), followed by 30–34 years (28%), 19–23 years (19%), and 35–40 years (5%). Most respondents came from North Surabaya (24%), followed by Central Surabaya (20%), East and West Surabaya each (19%), and South Surabaya (18%). This distribution shows that respondent involvement is fairly even throughout Surabaya, with a dominance in the northern region. Based on the intensity of use, most respondents use the SSW website 3–5 times (63%), followed by 1–3 times (24%), and more than 5 times (13%). This shows that the majority of users are quite familiar with the service, although the frequency of use is still limited.

# Importance Performance Analysis (IPA) Data Processing

## **Conformity Level Analysis**

Suitability analysis is used to evaluate whether service performance is in accordance with its level of importance, by comparing the importance value and performance value (Roeke & Nurlela, 2023). Determination of the level of suitability is carried out using the following formula.

$$Tki = \frac{\overline{xi}}{\overline{yi}} \times 100\%$$

Information:

Tki = Respondent's suitability level

Xi = Average score of company performance assessment

Yi = Average score of respondent's expectation assessment

The following presents the results of calculating the level of conformity between performance and user expectations, which can be seen in Table 1.

Tuble 1. Analysis of Comorning Level				
Indicator	Statement	Performance (X)	Importance (Y)	Level of Compliance (%)
Ease of Use				
KP1	I found the SSW website easy to use.	1742	1815	96%
KP2	I feel the SSW website search bar works well.	1724	1801	96%

Table 1. Analysis of Conformity Level

Indicator	Statement	Performance	Importance	Level of
		(X)	<b>(Y)</b>	Compliance
				(%)
KP3	SSW website URL link is easy	1746	1788	98%
	to remember			0( (70/
	Average	net		90.07%
	I believe that SSW does not	usi		
KC1	share personal data	1740	1824	95%
	I trust that SSW archives	1745	1700	070/
KC2	personal data securely.	1/45	1/98	9/%
	I believe that SSW provides			
KC3	services according to	1720	1795	96%
	procedures.			
KC4	I believe that SSW has a reliable	1727	1801	96%
	security system.			
	digital signature in the permit			
KC5	letter comes from the right	1748	1806	97%
	source.			
	Average			96.2%
	Interaction Environ	nment Functiona	lity	
FI1	I can do simulation calculations	1723	1838	94%
	contained in SSW	1723		9470
FI2	The response format on SSW	1757	1779	99%
	works fine	1,0,	1,1,2	,,,,,
FI3	There is online assistance in filling out the form	1700	1774	96%
				96 33%
Reliability				
	SSW has provided good	1510	1024	0.40/
KA1	licensing services	1718	1824	94%
KA2	SSW has provided licensing		1814	05%
	services in a timely manner	1/2/	1014	9370
KA3	SSW is easy to access	1745	1803	97%
KA4	SSW functions as a licensing	1725	1799	96%
TZ A F	service well	1711	1772	070/
КАЗ	SSW is quite responsive	1/11	1//3	9/%
Average 95.8%				
	SSW provides personal data	lay of mormatic	<b>7</b> 11	
IT1	columns	1739	1823	95%
	SSW displays updated			
IT2	information on creating permit	1744	1813	96%
	letters			
IT3	SSW displays licensing service	1730	1819	95%
	information accurately	1,50	1017	22.0
IT4	SSW always updates	1714	1801	95%
	SSW has responsive features	1709	1702	050/
115	SSW movides information that	1/08	1/92	9370
IT6	is easy to understand	1734	1799	96%
	SSW displays an interesting	150 /	1805	0.60/
117	page	1724	1787	96%

Indicator	Statement	Performance (X)	Importance (Y)	Level of Compliance (%)
IT8	SSW displays text and images clearly	1729	1793	96%
IT9	SSW displays the appropriate text and image sizes	1721	1785	96%
	Average			95.56%
	Citizen	Support		
DW1	I can do a search related to transactions on the SSW website.	1728	1834	94%
DW2	I am sure that SSW website employees are able to solve the problems faced by users.	1731	1803	96%
DW3	I am sure that SSW website employees are able to answer user questions quickly.	1745	1820	96%
DW4	I am confident that SSW website employees have the knowledge to answer user questions.	1722	1812	95%
DW5	I believe the SSW website employees have a polite attitude.	1741	1811	96%
DW6	I am sure that SSW website employees have the ability to convey information well.	1729	1791	97%
	Average			95.67%

Based on the analysis results in Table 1, the level of conformity in all dimensions shows that SSW website services have met user expectations, with an average value above 94%. The User Ease and Environmental Functionality dimensions recorded the highest level of conformity, at 96.67% and 96.33% respectively, while the Content and Information Display dimensions had the lowest average value of 95.56%, which remained in the very good category. These findings indicate that overall the quality of services provided by SSW has met expectations and received positive perceptions from users.

## **Gap Analysis**

Gap analysis is used to determine the difference between user satisfaction levels and application performance. The GAP value is obtained from the difference between the average performance and the average expectation (importance) (Roeke & Nurlela, 2023). Gap analysis is used to measure performance achievement and identify sectors that need improvement. The results help local governments improve service quality, plan development, and prepare budgets. If the gap value is positive, it means that the SSW website performance is in accordance with user expectations; if negative, it means that it has not met expectations. The calculation of the average performance and importance of each attribute is carried out using the following formula.

$$\bar{X} = \frac{\sum Xi}{n} \qquad \bar{Y} = \frac{\sum Yi}{n}$$

Information:

 $\overline{Y}$  = Average performance level of all attributes

 $\overline{X}$  = Average level of expectation of all attributes

n = Number of respondents

The following presents the results of the Gap Analysis calculations used in this study to measure the difference between the level of user expectations and performance regarding the service.

Indicator	Mean		GAP
	Performance (X)	Importance (Y)	
KP1	4.36	4.54	-0.18
KP2	4.31	4.50	-0.19
KP3	4.37	4.47	-0.11
Average	4.34	4.50	-0.16
KC1	4.35	4.56	-0.21
KC2	4.36	4.50	-0.13
KC3	4.30	4.49	-0.19
KC4	4.32	4.50	-0.19
KC5	4.37	4.52	-0.15
Average	4.34	4.51	-0.17
FI1	4.31	4.60	-0.29
FI2	4.39	4.45	-0.05
FI3	4.25	4.44	-0.19
Average	4.32	4.50	-0.18
KA1	4.30	4.56	-0.27
KA2	4.32	4.54	-0.22
KA3	4.36	4.51	-0.15
KA4	4.31	4.50	-0.19
KA5	4.28	4.43	-0.16
Average	4.31	4.51	-0.20
IT1	4.35	4.56	-0.21
IT2	4.36	4.53	-0.17
IT3	4.33	4.55	-0.22
IT4	4.29	4.50	-0.22
IT5	4.27	4.48	-0.21
IT6	4.34	4.50	-0.16
IT7	4.31	4.47	-0.16
IT8	4.32	4.48	-0.16

Table 2. Gap Analysis

Indicator	Mean		GAP
	Performance (X)	Importance (Y)	
IT9	4.30	4.46	-0.16
Average	4.24	4.50	-0.19
DW1	4.32	4.59	-0.27
DW2	4.33	4.51	-0.18
DW3	4.36	4.55	-0.19
DW4	4.31	4.53	-0.23
DW5	4.35	4.53	-0.18
DW6	4.32	4.48	-0.16
Average	4.33	4.53	-0.20

Based on Table 2, all variables in the study, namely Ease of Use (KP), Trust (KC), Interaction Environment Functionality (FI), Reliability (KA), Information Content and Display (IT), and Citizen Support (DW), showed negative GAP values. This indicates that the performance of the SSW website service has not fully met user expectations (Mardalena & Andryani, 2021). In the KP variable, the highest GAP was in KP2 (-0.19), indicating that the search column was not optimal. The average GAP of -0.16 supports the findings (Guo et al., 2023) that design and navigation affect user satisfaction. The KC variable has the highest GAP in KC1 (-0.21), reflecting concerns about the security of personal data. The average GAP of -0.17 indicates that system reliability still needs to be improved, in line with the findings (Peña-García et al., 2024).

FI recorded the highest GAP in FI1 (-0.29), which is a calculation simulation feature that has not met expectations. The average GAP of -0.18 supports the study (Hamzah et al., 2023) on the importance of functionality to user satisfaction. In KA, the highest GAP was in KA1 (-0.27) related to the reliability of licensing services. The average GAP of -0.20 indicates the need to improve the accuracy of service time, in line with the findings (Dea Elias & Lubua, 2021). The IT variable had the highest GAP in IT3 and IT4 (-0.22), indicating a lack of accuracy and updating of information. The average GAP of -0.19 is in line with the study (Hamzah et al., 2023) on the impact of information quality on user satisfaction. Finally, the DW variable showed the highest GAP in DW1 (-0.27) related to the transaction tracking feature that was not yet optimal. The average GAP of -0.20 confirms the importance of user support, as stated by (Peña-García et al., 2024).

## Importance Performance Analysis (IPA) Quadrant Analysis

This section discusses the application of the Importance Performance Analysis (IPA) method through quadrant analysis mapped into a Cartesian Diagram. The X-axis shows the respondents' perceptions, while the Y-axis shows



the respondents' expectations. The results of the quadrant analysis were obtained from questionnaire data processed using SPSS software.

Figure 2. Science Cartesian Diagram

# **Quadrant I (Top Priority)**

Quadrant I includes indicators with high importance but low performance. Indicators in this quadrant need to be improved immediately to meet user expectations. The Surabaya City Government must pay special attention to this indicator in order to improve user satisfaction of the Surabaya Single Window (SSW) website. According to (Wirawan & Yunita, 2017), indicators in this quadrant are priority areas for service improvement. Indicators included in Quadrant I include FI1, KA1, KA2, DW1, DW4, and IT3. The following table presents recommendations for improvement specifically designed for each indicator in Quadrant I (top priority) as an effort to improve service quality, although these indicators have not yet become the main focus of user attention at this time.

	-	
Indicator	Statement	Recommendation
FI1	I can do simulation calculations contained in SSW	The government needs to improve the calculation simulation feature by improving the user interface, speeding up system response, and providing clear and interactive instructions. Periodic functional testing is also needed to prevent technical glitches.
DW1	I can do a search related to transactions on the SSW website.	It is necessary to develop a more detailed and real-time transaction tracking system, accompanied by automatic notification features to strengthen transparency and reduce dependence on officers.
DW4	I am confident that SSW website employees have	Conduct regular training and digital certification for staff, and integrate help centers and AI chatbots to support fast and accurate responses.

 Table 3. Quadrant I Improvement Recommendations

Indicator	Statement	Recommendation
	the knowledge to answer	
	user questions.	
KA1	SSW has provided good licensing services	Conduct a comprehensive evaluation of the digital licensing process to identify bottlenecks, and improve the clarity of procedures, documentation, and monitoring to make services more professional and systematic.
KA2	SSW has provided licensing services in a timely manner	Accelerate backend processes by optimizing digital workflows and reducing manual intervention. Implement automated reporting to ensure timely service.
IT3	SSW displays licensing service information accurately	Ensure that procedure information, requirements, and service flows are regularly updated. Use internal validation and user feedback to maintain accuracy and relevance.

## Quadrant II (Maintain performance)

Quadrant II includes indicators that are considered important by users and have been fulfilled well by the Investment and One-Stop Integrated Service Office (DPMPTSP). Indicators in this quadrant indicate that the service has met expectations and produced a high level of satisfaction, so it needs to be maintained consistently. Research (Fadhlillah & Suhendar, 2021) emphasizes the importance of maintaining the performance of indicators in Quadrant II to maintain user satisfaction. Indicators included in this quadrant include IT1, IT2, KC1, KC5, DW3, DW5, and KP1. Indicators IT1 and IT2 indicate that the personal data and licensing information update features have functioned optimally, although there is still room for improvement. KC1 and KC5 highlight the importance of trust in the security of personal data and the authenticity of digital signatures. DW3 and DW5 emphasize the role of HR in creating responsive and polite services, although competency improvement is still needed. Meanwhile, KP1 shows that the SSW site is easy to use, but the design and navigation can still be improved. Overall, Quadrant II indicators are the main strengths of the SSW system that need to be maintained and improved to maintain user loyalty (Abdullah, 2022).

## **Quadrant III (Low Priority)**

Indicators in Quadrant III show low levels of importance and performance. Although not a top priority, these indicators still need to be optimized gradually to maintain consistent digital service quality. Indicators in this quadrant reflect aspects of service that are less important in the eyes of users and have not achieved optimal performance. The study (Sitohang, 2023) suggests that these indicators can be the focus of long-term improvement without ignoring other more pressing areas. Indicators included in Quadrant III include IT4, IT5, IT7, IT8, IT9, KP2, KA4, KA5, KC3, KC4, FI3, and DW6. The following table presents recommendations for improvement specifically designed for each indicator in Quadrant III (low priority), as an effort to improve service quality, although these indicators are not yet the main focus of user attention at this time.

Indicator	Statement	Recommendation
IT4	SSW always updates information regularly	It is recommended to improve the consistency of information updates by including the last date on each document or announcement to maintain user confidence in data accuracy.
IT5	SSW has responsive features	System optimization is needed to be adaptive on all devices, so that access is faster and smoother for users.
IT7	SSW displays an interesting page	It is recommended to refresh the interface appearance with a modern and intuitive design without reducing the ease of navigation to improve the user's visual experience.
IT8	SSW displays text and images clearly	It is necessary to review color contrast, font size, and image resolution to make the content easy to read, especially for users with visual impairments.
IT9	SSW displays the appropriate text and image sizes	It is recommended to provide a font size setting feature or accessibility mode to adjust the display to user preferences.
KP2	The search field works fine	It is recommended to improve the search algorithm with spelling correction and keyword search features to make information easier to find.
KA4	SSW functions as a licensing service well	The government needs to routinely audit the licensing service system to ensure that all features run according to standards and are error-free.
KA5	SSW is quite responsive	It is recommended to improve server performance and speed up system response, especially during peak hours, to keep the service running smoothly.
KC3	SSW provides services according to procedures	It is necessary to clearly socialize service procedures on the main page and forms so that users understand that the service is running according to the provisions and is transparent.
KC4	SSW has a reliable security system	Governments are advised to increase digital security transparency through public explanations, certifications, or "secure" icons to build user trust.
FI3	There is online assistance in filling out the form	It is recommended to provide assistance such as tooltips, chatbots, or video tutorials so that users can fill out the form without confusion.
DW6	Employees have the ability to convey information well	Communication and digital literacy training for frontline staff needs to be improved so that they are able to provide clear, friendly and effective explanations both online and offline.

**Table 4. Quadrant III Improvement Recommendations** 

## Quadrant IV (Excessive)

Quadrant IV includes indicators with high performance but are considered less important by users. According to (Fadhlillah & Suhendar, 2021), indicators in this quadrant can be re-evaluated to improve the efficiency of resource use. Although they have been implemented well by DPMPTSP, these indicators are considered excessive because they are not a top priority for users. Indicators included in Quadrant IV include DW2, IT6, KA3, KC2, KP3, and FI2. Indicators in Quadrant IV show high performance but are considered less important by users. For example, indicator DW2 related to staff problem-solving ability is considered good, but is not considered crucial because users tend to choose independent solutions. IT6 shows that information is easy to understand, but users prioritize the availability of information over the ease of understanding the content.

KA3, related to ease of access, is considered a service standard, not an advantage. KC2 shows confidence in data security, although users do not pay much attention to the details of its management. KP3 reflects the ease of remembering URLs that are not considered important because users access them more often through search engines or direct links. FI2 shows good system response, but is not considered a priority compared to the speed and reliability of information. This finding opens up opportunities for efficiency, where resources can be diverted to Quadrants I and II to optimize service without reducing the perception of service quality in the eyes of users.

#### CONCLUSION

Based on the analysis using the *E-Govqual* model and the Importance Performance Analysis (IPA) approach, it can be concluded that the service quality of the Surabaya Single Window (SSW) website has not fully met user expectations. This can be seen from several important indicators that perform poorly (Quadrant I), such as FI1, DW1, DW4, KA1, KA2, and IT3, which need to be a priority for improvement. Meanwhile, indicators in Quadrant II such as IT1, IT2, IT10, DW3, KP1, and KC1 have met expectations and need to be maintained. Indicators in Quadrants III and IV, although not priorities, still need to be evaluated so as not to hinder services. The *E-Govqual* model has proven effective in identifying service dimensions that affect user satisfaction and can be used as a strategic reference in developing digital services in the future.

Based on the results of the study on the analysis of *e-government* service quality factors on the Surabaya Single Window (SSW) website with the *E-Govqual* model, there are several suggestions for further research. First, expand the research object to other *e-government* platforms in Surabaya or other areas to obtain a broader comparison. Second, consider the use of other evaluation models such as SERVQUAL, DeLone and McLean, or hybrid models to obtain more comprehensive results. Third, conduct regular data updates and monitoring to adjust to the dynamics of community needs and expectations. With these suggestions, it is hoped that future research can contribute more widely to the development of adaptive, inclusive, and sustainable digital public services.

#### REFERENCES

- Abdullah, K., Jannah, M., Aiman, U., Hasda, S., Fadilla, Z., Taqwin, Masita, Ardiawan, K. N., & Sari, M. E. (2022). *Metodologi Penelitian Kuantitatif* (N. Saputra, Ed.). Yayasan Penerbit Muhammad Zaini. http://penerbitzaini.com
- Salsabila, A. F. H. (2022). Optimalisasi Sistem Informasi Aplikasi Guru Surabaya (Siagus) Dalam Penilaian Kinerja Guru Di Kota Surabaya Provinsi Jawa Timur.
- Amrozi, Y., Aini, N., & Munadhiroh, Z. (2022). Peta Perkembangan E-Government Di Indonesia. JSI: Jurnal Sistem Informasi (E-Journal), 14(1). http://ejournal.unsri.ac.id/index.php/jsi/index
- Az Zahro, S. R., Nurjanah, N., & Mutmainah, N. (2022). Penerapan E-Government melalui Sectoral Protocol System guna Mewujudkan Good Governance di Indonesia. *Jurist-Diction*, 5(1), 341–364. https://doi.org/10.20473/jd.v5i1.32871
- Candra Susanto, P., Ulfah Arini, D., Yuntina, L., Panatap Soehaditama, J., & Nuraeni. (2024). Konsep Penelitian Kuantitatif: Populasi, Sampel, dan Analisis Data (Sebuah Tinjauan Pustaka). Jurnal Ilmu Multidisiplin, 3. https://doi.org/10.38035/jim.v3i1
- Dea Elias, J., & Lubua, E. W. (2021). The Impact of Usability, Functionality and Reliability on Users' Satisfaction During Library System Adoption. *The Journal of Informatics*, 1(1). https://doi.org/10.59645/tji.v1i1.13
- Fadhlillah, M. F., & Suhendar, E. (2021). Analisis Kualitas Pelayanan Dengan Metode Importance Performance Analysis Dan Potential Gain In Customer Value Di PT Capsugel Indonesia. https://doi.org/https://doi.org/10.37817/ikraith-ekonomika.v4i3.1674
- Febrianto, A., & Siroj, R. A. (2024). Studi Literatur: Landasan Dalam Memilih Metode Penelitian Yang Tepat. *Journal Educational Research and Development*, 01(02), 259–263.
- Fu, Q. (2022). How does digital technology affect manufacturing upgrading? Theory and evidence from China. PLOS ONE, 17(5), 1–18. https://doi.org/10.1371/journal.pone.0267299
- Guo, J., Zhang, W., & Xia, T. (2023). Impact of Shopping Website Design on Customer Satisfaction and Loyalty: The Mediating Role of Usability and the Moderating Role of Trust. Sustainability (Switzerland), 15(8). https://doi.org/10.3390/su15086347
- Hamzah, M. L., Yeskermessuly, A., Oktinadila, Y., Nazaruddin, & Purwati, A. A. (2023). Measurement of Usability, Information Quality, Service Information Quality on News Portals Website using Important Performance Analysis. *Journal of Logistics, Informatics and Service Science*, 10(4), 35–46. https://doi.org/10.33168/JLISS.2023.0403

- Hardani, Auliya, N. H., Andriani, H., Fardani, R. A., Ustiawaty, J., Utami, E. F., Sukmana, D. J., & Istiqomah, R. R. (2020). *Metode Penelitian Kualitatif & Kuantitatif* (H. Abadi, Ed.). CV. Pustaka Ilmu Group Yogyakarta. https://www.researchgate.net/profile/Assoc-Prof-Msi/publication/340021548\_Buku\_Metode\_Penelitian\_Kualitatif\_Kuantitatif /links/5e72e011299bf1571848ba20/Buku-Metode-Penelitian-Kualitatif-Kuantitatif.pdf
- Huang, C. H., Chou, T.-C., & Liu, J. S. (2021). Understanding the intrinsic nature of the trends of digital innovation: A main path analysis. 5912–5921.
- Kominfo. (2019). Perkembangan Ekonomi Digital Di Indonesia.
- Mardalena, O., & Andryani, R. (2021). Analisis Kualitas Layanan Website Pada Universitas Terbuka Palembang Menggunakan Metode Webqual 4.0 Dan Importance Performance Analysis (IPA). *Journal of Information Systems and Informatics*, 3(4). http://journal-isi.org/index.php/isi
- Maulani, W. (2020). Penerapan Electronic Government Dalam Peningkatan Kualitas Pelayanan Publik (Studi Kasus Program E-Health Di Kota Surabaya). *As Siyasah*, 5(2).
- Peña-García, N., Losada-Otálora, M., Auza, D. P., & Cruz, M. P. (2024). Reviews, trust, and customer experience in online marketplaces: the case of Mercado Libre Colombia. *Frontiers in Communication*, 9. https://doi.org/10.3389/fcomm.2024.1460321
- Prasetyawan, A. J., Usman, B., & Nofriadi. (2022). Implementasi Pemanfaatan E-Government Dalam Upaya Meningkatkan Pelayanan Publik Oleh Dinas Kependudukan Dan Catatan Sipil Kota Banda Aceh. 7.
- Prasetyo, B., Adnan, F., & Darmawan, J. T. (2023). Assessing The Quality and Prioritize Improvements of E-government Using E-govqual and Importance Performance Analysis. *Kinetik: Game Technology, Information System, Computer Network, Computing, Electronics, and Control.* https://doi.org/10.22219/kinetik.v8i2.1609
- Rachman, R. F. (2023). Pemanfaatan Teknologi Informasi dan Komunikasi dalam Administrasi Pengarsipan di Surabaya. *Idarotuna : Journal of Administrative Science*, 4(1), 81–96. https://doi.org/10.54471/idarotuna.v4i1.48
- Ragil Tri Wahyudi, & Gusmelia Testiana. (2022). Evaluation of User Satisfaction to Service Quality Sistem Pengembangan Daerah (Simbangda) Using Electronic Government Quality Method. *IT Journal Research and Development*, 179–190. https://doi.org/10.25299/itjrd.2022.8198
- Ramadhan, R., & Arifianti, R. (2019). Implementasi E-Government Di Kota Tangerang Menjadi Smart City (Studi Kasus Aplikasi Tangerang Live). 140– 156.

- Roeke, A., & Nurlela, S. (2023). Analisis Kualitas Aplikasi Shopee Menggunakan Metode Importance Performance Analysis (IPA). *Jurnal Infortech*, 5(1), 30– 35. http://ejournal.bsi.ac.id/ejurnal/index.php/infortech30
- Sahira, D. F., & Megawati, S. (2022). Efektivitas Pengawasan Lalu Lintas... Efektivitas Pengawasan Lalu Lintas Melalui Surabaya Intelligent Transport System (Sits) Di Kota Surabaya.
- Sitohang, J. N. (2023). Analisis Kualitas Pelayanan Terhadap Kepuasan Pelanggan Dengan Metode Importance Performance Analysis (Ipa) Pada Coffee Shop Teduh Tera Medan.
- Smuts, S., van der Merwe, A., & Smuts, H. (2020). A Strategic Organisational Perspective of Industry 4.0: A Conceptual Model. Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 12066 LNCS, 89–101. https://doi.org/10.1007/978-3-030-44999-5 8
- Tri, V., & Septi, A. (2022). Pemanfaatan Big Data di Bidang Pelayanan Publik Kota Surabaya Benefits of Big Data in the Field of Public Services in the City of Surabaya.
- Wirawan, A., & Yunita, V. (2017). Service Perfomance. Journal of Business Administration, 1(2), 194–208.