APPLICATION OF THE ANALYTIC HIERARCHY PROCESS METHOD IN EVALUATING PUBLIC COMPLAINT HANDLING SERVICE SATISFACTIONTHROUGH THE RAPID RESPONSE COMMUNITY (CRM) SYSTEM OF THE DKI JAKARTA PROVINCIAL GOVERNMENT

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Abstract

Objectives: The study aims to analyze the factors that shape public satisfaction with the Cepat Respon Masyarakat (CRM) System. **Methodology**: Analytic Hierarchy Process (AHP) analysis with a mixed methods approach was used to compare paired cluster indicators identified by three CRM system experts. **Finding**: The results indicate that the level of public satisfaction with the CRM system, in the second-level cluster, is the most important factor determining public satisfaction, perceived quality. In the third-level cluster, the most important factors determining public satisfaction are Service Process Efficiency and Transparency. In the fourth-level cluster, the most important factors determining public satisfaction are the report and complaint development process, ease of procedures, and security of reporter data protection. **Conclusion**: The implementation of the CRM system must consider public opinion as users. Therefore, the DKI Jakarta Provincial Government needs to focus on improving transparency, accessibility, and operational management of public services to increase public trust.

Keywords: Analytic Hierarchy Process (AHP); Cepat Respon Masyarakat (CRM) System; Perceived Value; Perceived Quality; Public Expectations

INTRODUCTION

Public service is an activity carried out by public administrators, namely the government, with the aim of meeting the needs of the community. Public service is stigmatized as a procedural and bureaucratic process, often perceived as slow. Public service delivery must be responsive, efficient, prompt, and transparent to maintain government accountability and credibility (Widanti, 2022). When a public service fails to meet the community's needs, it impacts public trust in government performance. Currently, public services are not only carried out conventionally; several regions have also provided easy access to digital public services, known as e-government. The goal is to make public services more systematic, responsive, and transparent, making them accessible to the wider public. With the use of digital public services, the public expects that public services will not only be responsive but also integrated and user-oriented (Wirtz et al., 2021).

One region developing a digital public service system is the DKI Jakarta Province. DKI Jakarta Province has a Cepat Respon Masyarakat (CRM) System as an official integrated platform that facilitates public services, such as reporting and public complaints, through a digital platform. The CRM system is widely accessible to the people of DKI Jakarta anytime and anywhere, allowing incoming reports and complaints to be accumulated and integrated with regional government agencies for follow-up. The CRM system facilitates interaction between the public and the central government and regional government agencies, a weakness that has historically been a significant gap. The previously conventional reporting and complaint mechanisms have hampered public trust in the performance of the Jakarta provincial government. Problems with the public reporting and complaints mechanism in DKI Jakarta Province previously required lengthy administrative and bureaucratic processes. This not only resulted in a lengthy problem-solving process but also a lack of transparency in the resolution stages, which led to perceptions of slow government performance. This impacted government credibility and accountability, leading to public expectations not being commensurate with government performance, leading to public dissatisfaction and distrust in government

performance (Ansell et al., 2023). The CRM system demonstrates the transformation and innovation of public services, prioritizing efficient public service processes and ensuring that all public policies are based on a database of frequently reported issues. This means the CRM system can serve as a platform to help identify trends in complaint types, including areas with the highest number of complaints in the DKI Jakarta Province. Government performance is also transparently displayed in the CRM system, where each department and regional government agency demonstrates their follow-up and responsiveness to public reports and complaints. The CRM system will serve as a useful platform for monitoring and evaluating the performance of each department and regional government agency, enabling the DKI Jakarta Provincial Government to create data-driven policies. Measuring public satisfaction with the use of a CRM system can be done by identifying factors and points that are crucial for optimization and improvement. The goal is for the CRM system to meet public expectations and facilitate the necessary public services. This CRM system measurement not only measures the number of accesses and complaints received, but also the user experience before, during, and after using the CRM system. This CRM system experience measurement can refer to ease of use, responsiveness, follow-up, and even the competence and attitude of human resources.

The successful implementation of transformation in the CRM System that supports the ease of public services can be evaluated to what extent the CRM System can meet the needs and expectations of the public. The need to identify which areas of factors exist in the CRM System is also carried out as a form of input for improvement and optimization of the CRM System to be better. The success of the CRM System needs to encourage public service governance that not only pays attention to the sophistication of the system, but also how the CRM System is able to meet expectations and responsiveness in serving public needs. Digital service governance does not only take into account technical processes, but also the interaction between the public and the government, so that public expectations for digital public services should be able to provide real government performance solutions that are responsive and transparent to public needs (Idzi & Gomes, 2022). Public report and complaint data in the CRM System collected from January to August 2025 recorded a total of 123,789 reports and complaints, of which 115,772 reports were recorded as having been followed up. A gap of 8,017 reports remained unresolved, creating a gap where the completion rate was high at over 90% but the remaining 10% lacked clear follow-up. The problem was a slow response from regional government agencies and a lack of communication regarding report resolution.

Table 1. Number of Reports on the CRM System

Regional Work Unit	Number of Reports	Number of Completed Reports	Average Report Completion (Days)	Average Report Completion Time (Hours)
Office of Public Works and Highways	2.766	2.717	110,82	2.657,79
West Jakarta Water Resources Sub-department	1.157	1.155	58,77	1.408,64
Central Jakarta Public Works Sub-department (Roads and Highways Division)	1.819	1.816	37,75	903,05
Department of Parks and Urban Forests	785	784	18,04	431,68
West Jakarta Public Works Sub-department (Roads and Highways Division)	5.611	5.604	18,01	428,65
PT Transportasi Jakarta (TransJakarta)	2.021	2.020	26,28	628,18
West Jakarta Parks and Urban Forest Sub-department	2.532	2.531	16,03	384,17

Source: https://crm.jakarta.go.id/

Based on the data in Table 1, the number of reports in the CRM system is explained by the average report completion time (both days and hours) between regional work units in DKI Jakarta. There are seven work units that have problems completing reports in this CRM system. In the Office of Public Works and Highways, out of 2,766, 2,717 reports have been completed, with an average completion time of 110.82 days and 2,657 hours. Likewise, other regional units have not yet completed 100% of the report compared to the other 560 work units. This indicates that

the seven work units have not optimized the CRM system in responding to public needs and complaints. Handling with an average completion time of more than 15 days indicates obstacles in the process of responding to problems experienced by the public, which has an impact on the gap in public service performance that should be fast, responsive, and equitable across all work units.

LITERATURE REVIEW
E-government

Digital public service governance aligns with the concept of e-government. E-government is defined as a form of government public service that utilizes digital technology in managing government services with the goal of optimizing the quality of public services. The e-government-based public service process aims to provide public services transparently, efficiently, and responsively to public needs. E-government aims to simplify the bureaucratic process of public services, transforming from conventionally slow to fast. E-government public service governance will lead to innovation and transformation efforts that prioritize the digitalization of service systems (Latupeirissa et al., 2024). This e-government public service transformation will improve the government's image and performance in the public eye, ultimately increasing public trust. Public trust in government performance encourages public service governance to achieve satisfaction in how the government is able to meet public expectations (Chien & Thanh, 2022). E-government is a form of digital government service governance that not only prioritizes digitalization but also makes service performance faster and more transparent.

Public Satisfaction

Satisfaction can be interpreted as playing a major role in shaping the emotional feelings felt by users, whether happy or disappointed. This can mean that user satisfaction is considered a response to the fulfillment of expectations, where users can provide an assessment related to the actual features of the product or service. According to Deyalage & Kulathunga (2019), satisfaction includes three basic components: responses (emotional or cognitive) related to a particular focus (expectations, products, consumption experiences) determined at a certain time (after consumption, after choice, based on accumulated experience). This makes conformity with expectations where there is a level of conformity between the expected product or service and the perceived expected results. Public service satisfaction is achieved when public expectations regarding the services they receive are met.

Kotler & Keller (2009) argue that customer satisfaction occurs when a person feels happy or disappointed with the results obtained from a product or service compared to their expectations. This is supported by Sari & Bahfiarti (2021) statement, which explains that satisfaction and dissatisfaction can be interpreted as evaluating the perceived difference between the expectations or expectations of previous performance and the actual conditions experienced after use. Bateson & Hoffman (1999) explain that service quality is the assessment and evaluation of the service delivery process. This means that service satisfaction is the basis for assessing the quality of services provided against user needs. Satisfaction with public services is used to assess the performance of government services and influence decision-making. Public service satisfaction with government encompasses emotional experiences and psychological recognition of the government based on a subjective perspective. According to Du & Wang (2024), satisfaction with public services refers to emotional feelings (positive or negative responses from the public to the government) and cognitive experiences (public perceptions of the government).

METHOD

This research uses a mixed method approach consisting of quantitative and qualitative approaches. The qualitative approach uses an explanatory method with a survey technique using a questionnaire in collecting research data. According to Nardi (2018), explanatory survey research is intended not only to confirm but also to evaluate the problem topic being studied. In this explanatory method, the research design is cross-sectional, where each finding is discussed in depth but simply. Using a cross-sectional approach in this study, each research respondent filled out a provided questionnaire leading to statements and questions from the independent and dependent variables related to the problem being studied. According to Creswell (2014), an interview is the process of obtaining statements in accordance with research objectives, through a question-and-answer process between an interviewer and the interviewee. In this interview process, an interview guide is used as a guideline for the interview regarding what questions are given to the research subjects. The in-depth interview process involved CRM System experts, consisting of two senior public service experts and one CRM System implementation staff member. The profiles of the three experts in this study are as follows:

Table 2. Respondents in AHP In-Depth Interviews

Name	Position	Work Experiences
AS	Head of the Complaint Handling Division, Government Bureau, Regional Secretariat of DKI Jakarta Province	20+ years
CH	Head of the Subdivision for Complaint Services and Governance, Government Bureau, Regional Secretariat of DKI Jakarta Province	17+ years
BS	Public Service Implementation Staff for the CRM System	10+years

This research used the Analytical Hierarchy Process (AHP) method to assess the three CRM system experts shown in Table 2 above. The three experts were interviewed and directed to complete a pairwise comparison instrument on the indicators and factors influencing public satisfaction with the CRM system. Experts conducted pairwise comparisons to evaluate the level of indicators and factors influencing public satisfaction with the CRM system using a scale of 1-9. Interviews conducted by researchers involved questions and answers to obtain information on various indicators of each e-government service quality factor that influence satisfaction with public services through the CRM system in DKI Jakarta Province. The decision assessments of these experts were conducted to analyze and evaluate each relationship within the factors, creating a multi-criteria hierarchical model (Saaty, 2008). The AHP assessment method can produce a subjective pairwise comparison matrix, resulting in a hierarchical structure of clusters of relationships between factors that shape public satisfaction with the CRM system. At the first level, the "A" label in the evaluation system represents "public satisfaction", referring to satisfaction with public services. At the second level, "B" is defined as a causal variable representing perceived and expected value and quality in the evaluation system, using the labels B1 for Perceived Quality, B2 for Public Expectations, and B3 for Perceived Value. At the third level, "C" describes a further categorization of the second level based on public services in the CRM system, including: C1 for System Accessibility and Ease of Use, C2 for Public Service Security and Reliability, C3 for Service Process Efficiency and Transparency, C4 for Government Responsiveness and Accountability, C5 for Overall Expectations, and C6 for Overall Value. At the fourth level, "D", each indicator at the third level is further subdivided into specific public services in the CRM system according to the statements in the 28 indicators previously described, labelled D1-D28. These 28 indicators measure public satisfaction with services in the CRM system through a survey questionnaire that references public experiences when submitting complaints and reports in the CRM system. Based on this four-level indicator system, the final structure of the public satisfaction system in the CRM system is as follows:

RESULTS AND DISCUSSION
Result

The score results are based on data collection carried out by three CRM system experts resulting from assessments at the second level assessing the criteria of Perceived Quality, Public Expectations, and Perceived Value. The expert gives a scale of 1-9 for each comparison of each pairwise comparison matrix criterion, the results are as follows:

Table 3. Second Level Criteria Result

Criteria	Weight	CI	CR
Perceived Quality	0.684	0.036	0.063
Public Expectations	0.253		
Perceived Value	0.063		

The score results are based on data collection conducted by three CRM system experts which are the results of the third level assessment that assesses the criteria of System Accessibility and Ease of Use, Public Service Security and Reliability, Service Process Efficiency and Transparency, and Government Responsiveness and Accountability. The experts provide a scale of 1-9 for each comparison of the pairwise comparison matrix criteria, the results are as follows:

Table 4. Third Level Criteria Result

Criteria	Weight	CI	CR
System Accessibility and Ease of Use	0.052	0.088	0.98
Public Service Security and Reliability	0.147		
Service Process Efficiency and Transparency	0.305		
Government Responsiveness and Accountability	0.557		

Weights for Fourth Level Criteria

The scoring results are based on data collected by three CRM system experts. This is the fourth level of assessment, which assesses statements based on the criteria items: System Accessibility and Ease of Use, Public Service Security and Reliability, Service Process Efficiency and Transparency, and Government Responsiveness and Accountability. The experts assigned a scale of 1-9 for each criterion in the pairwise comparison matrix:

Table 5. Fourth Level Criteria Result

Criteria	Weight	CI	CR
The CRM System's reporting and complaint procedures are easy to understand.	0.672	0.040	0.070
The guidance mechanism for using the CRM System is informative and clear.	0.259		
There are no complicated bureaucratic and administrative barriers to reporting and complaints in the CRM System.	0.069		
The CRM system ensures the protection of reporter data.	0.406	0.101	0.090
Reports and complaints in the CRM system are followed up objectively.	0.283		
Reports and complaints in the CRM system are followed up transparently.	0.158		
The CRM system provides a two-way communication channel between reporters and the regional government agencies that follow up on the report.	0.095		
The CRM system provides process tracking and report follow-up status.	0.058		
The CRM system provides notifications on progress and update report follow-up.	0.314	0.105	0.080
The CRM system ensures that reports are followed up within established timelines.	0.250		
The CRM system never experiences disruptions.	0.165		
Report follow-up in the CRM system is carried out consistently according to established procedures.	0.113		
The CRM system provides open access to all types of public services.	0.068		
The CRM system provides open and transparent access that is easily accessible to the public.	0.053		
The CRM system provides open access to regularly updated statistics.	0.037		
The CRM system provides a support service for complaints and follow-up on unsatisfactory reports.	0.252	0.150	0.990
The government conducts outreach and education on the use of the CRM system.	0.180		
The CRM system is responsive to community challenges when submitting reports and complaints.	0.146		
The CRM system is responsive to community challenges when submitting reports and complaints.	0.110		
The CRM system prioritizes report follow-up based on the priority	0.076		

Criteria	Weight	CI	CR
of the reported issue.			
The CRM system ensures that reports are processed in accordance with applicable regulations.	0.060		
There is a guarantee of timely follow-up on reports in the CRM system.	0.052		
The CRM system operator is communicative and follows up on reports.	0.043		
Report follow-up prioritizes the needs and impact of issues inputted into the CRM system.	0.034		
Report documentation and follow-up actions are well-publicized.	0.028		
Supporting resources are available within the CRM system, such as public communication channels and official printed reports.	0.020		

Discussion

Public perception of the quality of public services in a CRM system is not only about how well reported and complained issues are resolved, but also needs to consider the user experience within the CRM system. The AHP assessment in evaluating public satisfaction with a CRM system measures the comparison of factors. The primary factor determining public satisfaction with a CRM system should emphasize user interaction during the reporting and complaint process Digital public service governance needs to accommodate user-friendly services, thereby providing satisfaction and fostering public satisfaction with the CRM system. Based on the concept of e-government, digital public service governance needs to accommodate responsive and transparent public needs without going through complicated and slow bureaucratic and administrative processes. E-government governance means public services that accommodate public needs with systematic and transparent operational and managerial mechanisms (Hartanto et al., 2021; Umbach & Tkalec, 2022).

In a CRM system, the public's primary concern is how the CRM system should streamline and transparent public services, as a determining factor in public satisfaction. When the CRM system is capable of accommodating fast and transparent public services, it provides public satisfaction and has a tangible impact on the success of the CRM system implementation. Efficiency and transparency in digital public service governance can measure the extent to which government performance is responsive to public needs without complicated and slow administrative and bureaucratic processes (Matheus et al., 2023). Digital transformation of public service governance should facilitate more responsive and rapid follow-up, thereby enhancing the credibility and accountability of government performance. The CRM system is a public service platform that ensures user-friendly user experience and addresses user needs when submitting complaints and reports. For users, it is crucial to understand the follow-up process, making it essential for the CRM system to accommodate regular updates for each complaint and report. Furthermore, transparency also requires providing concrete documentation of the extent to which regional government agencies or institutions within the DKI Jakarta Province provide statistics on the publication of reports that are in progress and reports that are deemed complete. A key aspect of digital public service governance is the public's legitimacy of government performance through transparent and responsive governance (Haggart & Keller, 2021).

Public satisfaction with CRM systems requires consideration of user-friendly procedural mechanisms. A user-friendly mechanism makes the CRM system easy to understand and allows novice users to easily access it upon first use. A user-friendly CRM system also impacts how users perceive the benefits of public service transformation, which indirectly impacts government performance in accommodating public needs. The need to consider user-friendly reporting governance mechanisms can facilitate users' use of digital public service systems, enabling them to serve public needs quickly (Younus et al., 2024). Users also consider the importance of security in CRM systems, ensuring their data is protected. CRM system users need to feel secure when accessing and entering report data, including their identities. The high number of hacking cases on public service websites or platforms is a concern for users, necessitating the protection of reporters' identities (Brown & Marsden, 2023). The public also believes that the CRM system needs to openly communicate transparency to the reporting process. The CRM system should include updates on reports and complaints, from their initial submission to follow-up. This transparency in the CRM system is a crucial component in enabling the public to participate in monitoring each complaint. The public needs to know the government's performance in responding to and resolving issues, demonstrating its responsiveness to

the public's needs. The impact of the government's ability to demonstrate transparent performance in responding to public needs builds trust in its credibility and accountability (Hartanto et al., 2021). This transparency also impacts the responsiveness of report follow-up. The CRM system should accommodate reports with publicly available timeframes. As part of digital service governance, this component is crucial in shaping public satisfaction with digital services (Milakovich, 2021). This CRM system not only reflects digital governance, which addresses the need for managerial and operational mechanisms for public services, quality interactions, and transparency of government performance, but also encompasses strengthening user literacy, simplifying procedures, strengthening data security, and improving the quality of staff responses as part of continuous improvement. Public satisfaction is shaped by a combination of interrelated technical and non-technical factors within the digital service ecosystem.

CONCLUSION

The DKI Jakarta Province presents e-government public service governance that makes it easier for them to serve the needs of their community. The Cepat Respon Masyarakat (CRM) System is a platform used by the DKI Jakarta Provincial Government to submit complaints and reports on every problem and need for public services. Evaluations that measure which factors can measure public satisfaction with the CRM System are directed at how public service governance is able to meet public expectations by how responsiveness, efficiency, and transparency towards government performance. In measuring public service satisfaction, an important factor that is highlighted is the extent to which the CRM System is able to be a user-friendly platform in providing an easy reporting mechanism for problems and needs of public services. When the CRM System is able to meet expectations by providing public satisfaction, the impact is the performance of the government's credibility and accountability in the eyes of the public.

REFERENCES

Ansell, C., Sørensen, E., & Torfing, J. (2023). Public administration and politics meet turbulence: The search for robust governance responses. Public Administration, 101, 3–22. https://doi.org/10.1111/padm.12874

Aritonang, D. M. (2017). The impact of e-government system on public service quality in Indonesia. European Scientific Journal, 13, 99–111. https://doi.org/10.19044/esj.2017.v13n35p99

Bateson, J. E. G., & Hoffman, K. D. (1999). Managing services marketing: Text and Rreadings. Dryden Press.

Cahyadi, A. (2003). E-government: Suatu tinjauan konsep dan permasalahan. Journal The WINNERS, 4(1), 1–12.

Canco, I., Kruja, D., & Iancu, T. (2021). AHP, a reliable method for quality decision making: A Case study in business. Sustainability, 13(24), 1–14. https://doi.org/10.3390/su132413932

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. New York: Sage Publications Ltd.

Deyalage, P. A., & Kulathunga, D. (2019). Factors Affecting Online Customer Satisfaction: The Sri Lankan Perspective. International Journal of Business and Management, 14(2), 99. https://doi.org/10.5539/ijbm.v14n2p99

Du, X., & Wang, Z. (2024). Researching public satisfaction in social governance through the application of the fuzzy comprehensive evaluation method. Journal of Social Sciences, VII(2), 105–117. https://doi.org/10.52326/jss.utm.2024.7(2).09

Haggart, B., & Keller, C. I. (2021). Democratic legitimacy in global platform governance. Telecommunications Policy, 45(6), 1–17. https://doi.org/10.1016/j.telpol.2021.102152

Idzi, F. M., & Gomes, R. C. (2022). Digital governance: government strategies that impact public services. Global Public Policy and Governance, 2, 427–452. https://doi.org/10.1007/s43508-022-00055-w

Kotler, P., & Keller, K. L. (2009). Marketing management. Pearson Prentice Hall.

Lin, J., Carter, L., & Liu, D. (2021). Privacy concerns and digital government: exploring citizen willingness to adopt the COVIDSafe app. European Journal of Information Systems, 30(4), 1–15. https://doi.org/10.1080/0960085X.2021.1920857

Mahmud, D. (2023). Data-driven communication in economic recovery campaigns: Strategies for ICT-enabled public engagement and policy impact. International Journal of Business and Economics Insights, 3(1), 1–30. https://doi.org/10.63125/qdrdve50

Nardi, P. M. (2018). Doing Survey Research: A Guide to Quantitative Methods. New York: Routledge.

Nugroho, A. P., Zed, E. Z., & Syakila, F. (2023). Intention to use digital bank: Role of perceived ease of use, customer knowledge, service quality, and system security. Jurnal Ekonomi, 12(01), 891–899.

Omar, S. S., Nayef, J. M., Qasim, N. H., Raad Tomaa Kawad, & Kalenychenko, R. (2024). The role of digitalization in improving accountability and efficiency in public services. Revista Investigación Operacional, 45(2), 203–224.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multi-item scale for measuring customer perceptions of service quality. Journal of Retailing, 64(1), 12–40.

Saaty, T. L. (2008). Decision making with the analytic hierarchy process. International Journal of Services Sciences, 1(1).

Sari, N. M., & Bahfiarti, Muh. I. S. T. (2021). Public satisfaction with information services in public services. Proceedings of the 1st International Conference on Law, Social Science, Economics, and Education, 1–8. https://doi.org/10.4108/eai.6-3-2021.2305964

Setyowati, K., Adi, P. S., Suryawati, R., Parwiyanto, H., & Prakoso, S. G. (2024). Effect of E-GOVQUAL service quality on customer satisfaction of public service mall website in Surakarta. Pakistan Journal of Life and Social Sciences, 22(2), 38–52. https://doi.org/10.57239/PJLSS-2024-22.2.004

Suhendar, A., Asmala, T., & Johan, A. (2022). The effect of digital service quality on public satisfaction through perception of ease of use. JAMBA: Journal of Applied Management and Business Administration, 1(1), 11–20.

Widanti, N. P. T. (2022). Good governance for efficient public services responsive and transparent. International Journal of Demos, 4(2), 872–879.

Wirtz, B. W., Müller, W. M., & Schmidt, F. W. (2021). Digital public services in smart cities - An empirical analysis of lead user preferences. Public Organization Review, 21, 299–315. https://doi.org/10.1007/s11115-020-00492-3