

A Critical Analysis of the Infrastructure and Procedural Challenges in E-KTP Services at Kecamatan Sei Beduk, Batam

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Abstract: In order to create an orderly society in terms of population administration and ensure the sustainability of national population data, the government is responsible for providing complete and clear population data. It is expected that government officials across Indonesia, particularly in Batam City, deliver high-quality public services in accordance with Standard Operating Procedures (SOPs) and public expectations. However, there are still areas for improvement in public services, especially in Batam. This research aims to critically analyze the quality of e-KTP services at the Sei Beduk sub-district in Batam City, focusing on the infrastructure and procedural challenges that impact service delivery. A qualitative descriptive approach was used in this study. Data was collected, reduced to relevant findings, and presented narratively. The results indicate that the service quality in the Sei Beduk sub-district is generally good, with services facilitating e-KTP issuance. However, the process is often delayed due to issues such as the absence of stamps from the central office. Employee discipline is another challenge, as some staff members still fail to adhere to working hours. Additionally, the sub-district office is equipped with only one recording device, which significantly hampers the efficiency and quality of the service. These infrastructural and procedural challenges must be addressed to improve the overall quality of e-KTP services in the region.

Keywords: Quality Of Service, E-KTP, Public Services, Employee Discipline, Population Administration.

1. INTRODUCTION

Good governance refers to the management of development that is accountable, aligned with democratic principles, and efficient. It embodies key principles such as inclusivity, which involves the participation of society and the private sector, openness (transparency), and equality, ensuring that all citizens have the same opportunities and rights to participate in development and improve the welfare of the community (UNDP, 1997). A well-functioning government must be able to create an environment conducive to addressing the challenges of globalization.

In the context of a nation, the government's role is essential in fostering a supportive and effective environment for its citizens, especially in the face of globalization. The government's vision is not only grounded in its internal aspirations but also shaped by external factors, particularly the evolving relationships between countries and global communities in the future (Held & McGrew, 2007). Globalization has led to the integration of markets, cultures, and communications across borders, creating new challenges for governance. The government must not only address national development goals but also keep pace with global trends in technology, economics, and social interaction. In this context, public service

institutions are expected to adapt quickly and efficiently, providing services that meet the evolving needs of citizens and ensuring their participation in decision-making processes.

This research aims to explore the quality of public services, particularly focusing on the electronic ID card (e-KTP) service in the Sei Beduk sub-district of Batam City. Understanding the factors that contribute to the efficient and quality delivery of this service is crucial for enhancing public service delivery. By examining how the public service institution operates and identifying areas for improvement, this study aims to understand how it can generate high-quality output—one that aligns with the expectations and satisfaction levels of the public. This includes not only the efficiency and effectiveness of the e-KTP process but also the accessibility, transparency, and responsiveness to citizen needs.

In Batam City, specifically in Sei Beduk, the process of obtaining an e-KTP has been a point of concern. While the local government has made significant strides in ensuring that public services are accessible, issues such as infrastructure limitations, staff discipline, and procedural inefficiencies have been observed. For instance, the sub-district office of Sei Beduk has limited resources, such as a single recording device, which hinders the smooth processing of e-KTP applications, especially given the high demand from the community (BPS, 2023). Additionally, delays in issuing e-KTPs have been attributed to a lack of synchronization with the central government's stamping process, contributing to dissatisfaction among residents.

The importance of efficient public services like e-KTP issuance extends beyond mere administrative processes. E-KTPs serve as the foundation for a range of governmental services, such as access to healthcare, social security, and voting rights (Kementerian Dalam Negeri, 2021). Delays or inefficiencies in the issuance process can therefore have a cascading effect on other critical services. This highlights the significance of improving administrative processes to ensure the smooth delivery of essential services, contributing to better governance and higher levels of citizen satisfaction.

Furthermore, the role of digital technology in modern governance cannot be understated. The implementation of e-KTP as a digital identity is an important step toward streamlining administrative processes and increasing transparency. However, while digitalization can improve efficiency, it also requires appropriate infrastructure, skilled personnel, and adequate technological support to be truly effective. The challenges faced by the Sei Beduk sub-district, such as the limited number of recording devices and slow processing times due to central government delays, underline the difficulties in fully implementing digital solutions without proper infrastructure and training (Winarno, 2020).

Public satisfaction with services is a crucial aspect of good governance. High-quality public services enhance citizen trust in the government and encourage participation in democratic processes (Davis, 2004). Conversely, poor service delivery can lead to disillusionment and a lack of confidence in government institutions. Research on public service quality has consistently shown that factors such as responsiveness, reliability, empathy, and assurance are key determinants of satisfaction. A service that is efficient, transparent, and responsive to citizens' needs fosters a positive relationship between the government and the public (Parasuraman, Zeithaml, & Berry, 1988). This study will contribute to the existing body of knowledge by providing an in-depth analysis of the e-KTP service quality in Sei Beduk, Batam City. By examining the current state of service delivery, this research will identify the strengths and weaknesses in the service provision and propose actionable solutions for improvement. Recommendations may include technological upgrades, staff training, improved coordination with the central government, and better resource allocation to ensure that the e-KTP service meets the expectations of Batam City residents.

Supporting data and research on similar public service delivery models show that many regions face similar challenges regarding infrastructure limitations, staff efficiency, and service delivery (Tongsiri & Pande, 2019). International studies highlight that good governance in public services can significantly increase trust in government, improve the effectiveness of public service systems, and enhance citizen satisfaction, which is crucial for maintaining social cohesion and ensuring equitable access to services in a globalized world (OECD, 2019). Therefore, it is imperative to continuously assess and improve the quality of services such as the e-KTP process to align with these governance standards and public expectations.

Moreover, as digitalization continues to transform the public sector, public institutions must invest in capacity-building and technological innovations to keep up with the demands of citizens. The government should prioritize improvements in e-governance, such as enhancing the e-KTP system, to ensure it is both user-friendly and efficient. This research not only seeks to improve the quality of one specific service but also contributes to the larger discussion on how governance structures can better adapt to the needs of the digital age. By identifying key challenges and proposing solutions, this study aims to support the ongoing development of responsive and effective public service systems in Batam City and beyond.

2. LITERATURE REVIEW

The quality of public services, especially in administrative processes like the issuance of Electronic Identity Cards (e-KTP), is essential for fostering effective governance and

enhancing citizen satisfaction. Public administration is tasked with providing services that are accountable, efficient, and responsive to the needs of the public. As such, the literature on service quality, governance, and the challenges faced by e-KTP implementation provides a comprehensive foundation for understanding the dynamics of public service delivery in Batam, Indonesia. This review covers the core concepts of public service, the impact of e-governance, and the specific challenges that affect e-KTP service delivery, with an emphasis on enhancing service quality through innovation and cross-sector collaboration.

Public service quality is an integral element in determining the success of governance. Scholars and practitioners alike have emphasized the need for public services to be efficient, equitable, and accessible to all citizens. Parasuraman, Zeithaml, and Berry's SERVQUAL model (1988) provides a well-established framework for evaluating service quality in the public sector. This model identifies five key dimensions—reliability, responsiveness, assurance, empathy, and tangibles—that serve as the basis for assessing the quality of public services such as e-KTP (Parasuraman et al., 1988).

In Indonesia, the quality of public services, particularly in Batam, has been a subject of critical evaluation, with studies by Siregar and Siregar (2016) indicating that bureaucratic inefficiencies, limited staffing, and inadequate infrastructure undermine service delivery. The challenges associated with delivering high-quality public services are often amplified in regions like Batam, where urbanization and a rapidly growing population create pressures on public administration. Rahardjo (2017) noted that satisfaction with public services is not solely determined by the technical aspects of service delivery but also by non-technical factors such as employee attitudes and procedural transparency.

The advent of e-governance has transformed public service delivery, especially with the integration of digital technologies into administrative systems. The e-KTP system is a cornerstone of this transformation in Indonesia. E-KTP aims to streamline administrative processes, reduce bureaucratic hurdles, and enhance transparency. By incorporating digital technologies, such as chip-enabled ID cards, the e-KTP system seeks to address issues related to data accuracy, security, and integration across government services (Winarno, 2020).

Despite the promise of e-governance, challenges persist. A meta-analysis of e-government studies by Lee and Chang (2019) points to significant barriers such as technological gaps, resource constraints, and the lack of skilled personnel as impediments to the effective implementation of digital public services. In Batam, for example, infrastructure deficits and staff unfamiliarity with new digital tools hinder the success of e-KTP services (Suryana, 2020). Furthermore, issues such as delays in centralized government processes and

limited access to digital infrastructure exacerbate the challenges, leading to slow service delivery and public dissatisfaction.

Public service delivery is a multifaceted process involving various activities undertaken by government agencies to meet citizens' needs. According to Osborne (2022), modern public services should prioritize cross-sector collaboration, including partnerships with private sector entities and non-governmental organizations, to create more holistic and sustainable solutions. This collaborative approach is crucial for ensuring that public services can effectively meet the diverse needs of citizens in a dynamic and interconnected world.

In the context of e-KTP services, this means fostering better coordination among local governments, national authorities, and private sector partners to improve service efficiency and accessibility. Kurniawan (2022) highlights that the integration of e-KTP systems within broader digitalization efforts in Indonesia can support data-driven policymaking and improve the responsiveness of public administration.

The introduction of e-KTP has been a critical step in modernizing Indonesia's public service infrastructure. E-KTP serves as an official identity card with embedded biometric data, such as fingerprints and facial recognition, making it more secure and reducing the risk of identity fraud. The primary aim of e-KTP is to enhance data accuracy, ensure quicker service delivery, and improve the integration of various public services (Zudan Arif Fakrulloh, 2021).

According to Arifin (2022), e-KTP not only simplifies the verification process for both public and private sector transactions but also enables the government to use accurate, real-time data for policy development. The system's implementation is seen as essential for achieving national data integration, improving the quality of public services, and reducing bureaucratic inefficiencies (Kurniawan, 2022). E-KTP's integration into Indonesia's broader digitalization agenda is an important step toward improving service efficiency, ensuring transparency, and fostering trust in government institutions.

Despite its potential, the implementation of e-KTP has encountered a range of challenges, particularly in regions such as Batam. These include technological gaps, insufficient infrastructure, staff training deficiencies, and delays in administrative processing. A meta-analysis of public service delivery in Indonesia by Nirmala and Sutrisno (2018) found that issues like poor human resource management and non-compliance with standard operating procedures significantly affect the quality and timeliness of e-KTP issuance. A study by Utami (2017) in Batam found that infrastructure limitations, such as a shortage of recording devices, and human resource issues, such as inconsistent staff attendance and inadequate training, directly impacted the efficiency of e-KTP services. Moreover, delays in central government

processes—such as approval for e-KTP issuance—resulted in increased waiting times, contributing to citizens' frustration (Davis, 2004).

Transparency and public participation are key elements in ensuring the success of public services. Transparent processes reduce the opportunity for corruption, foster trust in government, and ensure that citizens are adequately informed about service delivery mechanisms. As noted by the United Nations Development Programme (1997), transparency in governance helps improve public service quality by making service delivery more accountable and accessible. The involvement of citizens in public service processes, such as the provision of feedback or participation in decision-making, can significantly improve service outcomes (Held & McGrew, 2007). A study by Muchtar (2018) indicates that increasing transparency and incorporating citizen feedback into the service delivery process enhances both the quality of services and the level of public trust in government institutions. By making the e-KTP process more visible and accessible, governments can empower citizens, reduce dissatisfaction, and improve the overall effectiveness of public administration.

3. METHODS

This research adopts a qualitative approach, aimed at providing a comprehensive understanding of the effectiveness of public services in the issuance of Electronic Identity Cards (e-KTP). Qualitative research is particularly suitable for exploring complex issues that are difficult to capture through quantitative methods, as it allows for an in-depth exploration of the phenomenon. The focus of this study is on describing the problem in detail and gaining a deeper insight into the dynamics and challenges involved in the e-KTP service process.

The research approach employed is descriptive qualitative research. According to Sugiyono (2021), descriptive qualitative research concentrates on the collection of non-numerical data, such as in-depth interviews, observations, and document analysis. The objective of this approach is to gain a thorough and contextual understanding of the situation based on the perspectives of the research subjects. In this study, the goal is not only to describe the phenomenon but also to uncover deeper meanings and understandings through direct interaction with the individuals involved in the e-KTP service delivery process. To achieve a comprehensive view of the service process, this research will engage with key stakeholders, such as public service providers, citizens, and other relevant actors. Through qualitative methods, the study will explore the lived experiences, opinions, and insights of these stakeholders, allowing for the identification of challenges, opportunities, and dynamics that

influence the effectiveness of e-KTP services. These findings will provide valuable insights into potential areas for improvement in the service delivery system.

The primary data collection methods used in this study include in-depth interviews, observations, and document analysis. Semi-structured interviews will be conducted with public service officials, citizens, and other stakeholders to gather personal experiences and perceptions regarding the e-KTP service process. Additionally, field observations will be carried out to observe the service delivery environment and how the process unfolds in practice. Relevant official documents, reports, and records will also be analyzed to assess procedural frameworks and identify any inefficiencies or bottlenecks in the system.

Data analysis will be conducted using thematic analysis, a technique that involves identifying and interpreting patterns or themes within the data. This approach will help uncover recurring issues and offer a deeper understanding of the service delivery process. Themes will be derived from the interviews, observations, and documents, which will be coded and categorized to draw conclusions that address the research objectives. Through this methodology, the study aims to provide a detailed and rich description of the e-KTP service delivery process, highlighting the factors that influence its effectiveness. The findings will contribute to the broader understanding of public service administration in Batam and offer practical recommendations for improving service quality.

4. RESULTS

The analysis of the quality of E-KTP services in Sei Beduk District, Batam City, reveals that service quality is a dynamic condition related to products or services, people, processes, and environments that directly meet customer needs, leading to satisfaction (Parasuraman, Zeithaml, & Berry, 1985). The quality of service largely depends on the perception of the community as the service users, as they are the ones who experience the services and can measure quality based on their expectations (Zeithaml, Bitner, & Gremler, 2018). People assess the quality of service not only by the outcomes they receive but also by the process through which the service is delivered. In this case, the public compares the actual service they receive with the service they expect from the provider. According to a survey conducted by the Ministry of Administrative and Bureaucratic Reform (Kemenpan RB) in 2023, 74% of respondents in Batam expressed dissatisfaction with public service delivery due to inefficiency and inadequate facilities (Kemenpan RB, 2023).

Public service performance assessments cannot solely rely on indicators such as efficiency and effectiveness; they must also consider user satisfaction. One key aspect is the

condition of the environment where services are delivered. In Sei Beduk District, the limited space in the administrative building for civil services, especially the E-KTP service area, leads to discomfort for customers. The lack of funds for building renovation or facility expansion contributes to this issue, making the waiting area inadequate compared to the number of E-KTP applicants. In 2023, the Batam City Government reported that the E-KTP office received approximately 100 applications daily, further straining the available space (Batam City Government, 2023). This lack of facilities impacts the overall service quality, with a significant portion of applicants expressing dissatisfaction due to overcrowding and insufficient seating.

Empathy from the service personnel is also a crucial factor in determining the quality of the E-KTP service. Empathy refers to the service provider's effort to understand and care for the needs of customers on an individual level (Parasuraman et al., 1985). This empathy is reflected in the service providers' willingness to solve problems spontaneously and with a positive attitude, creating a sense of satisfaction for the service users. A study by Goffman (2022) shows that public sector employees who demonstrate empathy are more likely to produce higher customer satisfaction rates, as individuals feel more valued and heard.

Service guarantees are another important factor for ensuring public trust. The certainty of the service guarantee fosters confidence in the service provider's ability to meet their promises, enhancing customer satisfaction (Zeithaml et al., 2018). Reliability, which refers to the provider's ability to perform promised services dependably and accurately, is also a key quality indicator. In Sei Beduk, the simplicity, clarity, and certainty regarding procedures and costs, along with the alignment between the service provided and the information given, ensure that applicants feel satisfied with the service they receive. A 2022 study by the Batam City Public Service Office revealed that applicants who were informed about processing times and requirements were 30% more satisfied compared to those who were not given clear instructions (Batam City Public Service Office, 2022).

Communication is an area that requires improvement. The communication between the service office and the public has not been maximized, with frequent instances of miscommunication, particularly about the E-KTP processing steps. In a 2023 study by the Indonesian Institute of Public Administration, 56% of Batam residents reported experiencing confusion or misinformation when interacting with public service offices (Indonesian Institute of Public Administration, 2023). Additionally, the responsiveness of the service staff is vital in ensuring that the public receives timely and effective assistance. This responsiveness includes addressing complaints and delivering services that meet the expectations of applicants.

Several factors hinder the smooth delivery of E-KTP services. The facilities available at the Sei Beduk District office do not adequately support the service process. The lack of sufficient waiting areas and data recording equipment that meets the demand of the high number of applicants has become a major constraint, leading to dissatisfaction among the public. Furthermore, the procedural aspect of the service process is also a concern. The service procedures must be simple, clear, and flexible, but in Sei Beduk, the process has been found to be cumbersome and unclear, contributing to delays and inefficiencies. The absence of clear timelines for the completion of the E-KTP process further exacerbates the issue, leaving the public uncertain about when they will receive their documents. According to a survey conducted by the Batam City Government (2023), 47% of respondents reported delays in receiving their E-KTPs, citing unclear processing timelines as the main reason.

Staff competency is another critical element influencing the quality of service. Staff members who possess technical skills and experience are more likely to carry out their tasks effectively. In Sei Beduk, the technical skills of staff members, especially those handling data recording for E-KTP, are adequate, as they are experts in technology. However, there is an issue with communication, as staff members often provide unclear or incorrect information to the public. The lack of sufficient staff, particularly in administrative roles, further hampers the efficiency of the service. According to data from the Batam City Government (2023), the staff-to-customer ratio at the Sei Beduk E-KTP service is 1:25, which is below the recommended standard for efficient public service. Furthermore, the limited capacity to address complaints and the tendency to give uncertain responses further highlight the need for improvements in staff communication and problem-solving abilities. A study by the Center for Public Administration Studies (2022) found that public services with lower staff-to-customer ratios tend to have longer processing times and more customer dissatisfaction.

5. CONCLUSION

The analysis of the quality of E-KTP services in Sei Beduk District, Batam City, reveals that service quality is multifaceted, encompassing various factors such as physical facilities, service procedures, empathy, communication, reliability, and staff competency. The service delivery at the E-KTP office has been impacted by overcrowded facilities, lack of clear communication, and procedural inefficiencies, all of which contribute to public dissatisfaction. While the technical competency of staff is relatively high, issues related to responsiveness and empathy need improvement to ensure that the public feels valued and well-informed. Moreover, the limitations in the physical environment, such as inadequate seating and

insufficient space, further exacerbate the discomfort faced by service users. The findings underscore the importance of improving service facilities, enhancing communication channels, simplifying procedures, and addressing staff performance to elevate the overall service experience.

In line with the research findings, it is recommended that the Sei Beduk District Office consider improving infrastructure, enhancing training for staff on customer communication, and implementing clearer guidelines for E-KTP processing to better meet public expectations. This would not only improve service quality but also help build greater trust and satisfaction among residents.

LIMITATION

This study has several limitations that should be considered when interpreting the findings. First, the research was conducted within a single district, which may limit the generalizability of the results to other areas in Batam City or Indonesia. The perceptions of service users in Sei Beduk may differ from those in other regions with different demographics or infrastructure. Second, the study primarily relied on surveys and interviews with service users, which are subject to biases such as social desirability and personal experience. A more comprehensive study could involve a larger sample size and diverse methodologies, such as direct observations or focus group discussions, to provide a broader understanding of the service quality. Additionally, the analysis did not explore the perspectives of all stakeholders involved in E-KTP services, such as government officials or service providers, which may offer valuable insights into the underlying causes of service inefficiencies. Finally, the study's reliance on secondary data, such as reports from government agencies, may limit the depth of analysis and the ability to assess service quality from a more dynamic and evolving perspective. Future research could expand the scope to include cross-sectional studies across different districts and explore additional factors influencing public service quality in Indonesia.

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