

DIGITAL TRANSFORMATION IN PUBLIC SERVICES: A CASE STUDY OF LAILA 24/7 IN ENHANCING PHARMACEUTICAL AND FOOD SAFETY IN JAKARTA

TRANSFORMASI DIGITAL DALAM LAYANAN PUBLIK: STUDI KASUS INOVASI LAILA 24/7 DALAM MENINGKATKAN KEAMANAN OBAT DAN MAKANAN DI JAKARTA

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ABSTRACT

The rapid advancement of digital technology has revolutionized public service delivery, with innovations like Laila 24/7 emerging as transformative solutions. Implemented by the Jakarta Provincial Drug and Food Control Agency (BBPOM DKI Jakarta), this WhatsApp-based service integrates artificial intelligence (AI) and centralized databases to provide 24/7 access to pharmaceutical and food safety information, complaint handling, and regulatory consultations. This study employs a mixed-method approach—combining case analysis, stakeholder interviews, and performance metrics—to evaluate Laila 24/7's impact. Results demonstrate enhanced accessibility (24/7 responsiveness), efficiency (AI-driven complaint classification), and proactive product safety verification through BBPOM's integrated database. Challenges include digital literacy gaps among vulnerable groups and cybersecurity risks. The innovation significantly elevates public trust (evidenced by a 97.94% user satisfaction rate) and sets a benchmark for digital governance. Strategic recommendations focus on infrastructure expansion, community-based digital literacy programs, and multi-stakeholder collaboration to ensure inclusive and sustainable implementation.

Keywords: Digital Transformation, Public Service Innovation, AI-Integrated Governance, Pharmaceutical Safety, WhatsApp-Based Service

ABSTRAK

Kemajuan pesat teknologi digital mentransformasi layanan publik, dengan inovasi seperti Laila 24/7 menjadi solusi strategis. Diimplementasikan oleh Balai Besar POM DKI Jakarta, layanan berbasis WhatsApp ini mengintegrasikan kecerdasan artifisial (AI) dan database terpusat untuk menyediakan akses 24 jam terhadap informasi keamanan obat/pangan, penanganan pengaduan, dan konsultasi regulasi. Studi ini menggunakan pendekatan mixed-method—gabungan analisis kasus, wawancara pemangku kepentingan, dan metrik kinerja—untuk mengevaluasi dampak Laila 24/7. Hasilnya menunjukkan peningkatan aksesibilitas (response 24/7), efisiensi (klasifikasi pengaduan berbasis AI), dan verifikasi proaktif keamanan produk melalui integrasi database BBPOM. Tantangan meliputi kesenjangan literasi digital pada kelompok rentan dan risiko keamanan siber. Inovasi ini meningkatkan kepercayaan publik (97.94% kepuasan) dan menjadi acuan tata kelola digital. Rekomendasi strategis mencakup ekspansi infrastruktur, program literasi digital berbasis komunitas, dan kolaborasi multipihak demi keberlanjutan inklusif.

Kata Kunci: Transformasi Digital; Inovasi Pelayanan Publik, Tata Kelola Berbasis AI, Keamanan Obat, Layanan Berbasis WhatsApp

1. INTRODUCTION

The rapid advancement of digital technology opens up significant opportunities to improve the quality and reach of public services. Globally, internet usage has reached 4.54 billion active users, equivalent to 59% of the world's population (Dwivedi et al., 2021). This development has encouraged governments to utilize digital technology as a tool to empower public services, including in the areas of complaints, consultation, and product safety monitoring (A Data-Driven Public Sector, 2019; Engin & Treleaven, 2019). The digital transformation of public services has become a strategic agenda to improve the efficiency, effectiveness, and transparency of public service delivery. Amidst the dynamics of information and communication technology, digital-based public service innovation has gained significant momentum (Dwivedi et al., 2021).

In Indonesia, several innovations have been implemented to support more responsive and integrated public services. For example, the WhatsApp consultation and complaints system at the Population and Civil Registration Office in Bintan Regency has demonstrated effectiveness, with a Public Satisfaction Index of 87% (Ananda et al., 2023). Furthermore, e-government-based innovations in the health sector, such as Ayo Ceting (Let's Call), launched by the Andalas Community Health Center in Padang City, have had a significant impact by increasing public knowledge and access to health services (Permana, 2020).

In the context of Jakarta, with its large population and high urbanization rate, digital transformation not only accelerates administrative processes but also improves the safety of consumer products—particularly medicines and food (Rosalina et al., 2023; Jouanjean, 2019). The integration of complaint consultation services, digital communication technology, and AI-based security systems provides a strong foundation for comprehensive public service innovation (Mulpuri, 2025).

One of the latest innovations is Laila 24/7, implemented at the Food and Drug Monitoring Agency (BPOM) in Jakarta. This innovation is designed to provide real-time access to information and facilitate the public's submission of complaints via WhatsApp. Furthermore, the integration of artificial intelligence (AI) and the drug and food safety system managed by BBPOM is an innovative effort to protect the public from unsafe products.

Laila 24/7 is a digital public service initiative that utilizes WhatsApp as the primary communication channel between the government and the public. The core concept of Laila 24/7 is to provide 24/7 access to complaints, consultations, and information related to public services in Jakarta. This service is designed to respond directly and quickly to public needs, thereby reducing wait times and expediting problem resolution. This article aims to analyze the implementation, impact, and challenges of digital transformation of public services through the Laila 24/7 innovation in Jakarta, by utilizing integrated technology support.

2. METHODS

2.1. Research Approach

This study adopted a mixed-methods approach, integrating qualitative and quantitative analysis to provide a comprehensive understanding of the impact of Laila 24/7's innovation. This approach allowed for triangulation of data from multiple sources, enhancing the validity and reliability of the findings.

2.2. Research Design

The research design used was an evaluative case study. The Laila 24/7 innovation in Jakarta was chosen as the primary unit of analysis to explore its implementation, impact, and challenges within the context of the digital transformation of public services.

2.3. Data source

2.3.1. Data Primer:

- Stakeholder Interviews: In-depth interviews were conducted with representatives from the Jakarta Food and Drug Monitoring Agency (BBPOM), Laila 24/7 service users, and digital transformation experts. These interviews aimed to gather qualitative perspectives on experiences, perceptions, and challenges related to innovation.
- Case Analysis: Participatory and non-participatory observation of Laila's 24/7 operations, including the workflow of receiving and handling complaints, as well as the interaction of the AI system and the BBPOM database.

2.3.2. Data Seconds:

- Performance Metrics: Quantitative data was collected from Laila's 24/7 performance reports, including responsiveness level, number of complaints handled, and user satisfaction level (e.g., 97.94% satisfaction rate).
- Official Documents: Analysis of internal documents of the DKI Jakarta BBPOM regarding policies, standard operating procedures (SOPs), and Laila 24/7 innovation evaluation reports.
- Literature Study: An extensive literature review was conducted to identify theoretical frameworks, best practices, and relevant case studies on digital transformation, public service innovation, and drug/food safety.

2.4. Data Collection Techniques

- Interview: Using structured and semi-structured interview guidelines to ensure consistency in qualitative data collection, while allowing for in-depth exploration of emerging issues.
- Observation: This is done through direct monitoring of Laila's 24/7 system operations and user interactions with the platform.
- Quantitative Data Collection: Performance metric data was obtained from the Laila 24/7 system dashboard and internal reports from BBPOM DKI Jakarta.

2.5. Data Analysis Techniques

2.5.1. Qualitative Analysis:

- Interview and observation data were analyzed using a thematic approach. Interview transcripts were coded, categorized, and recurring patterns identified to uncover key themes related to the implementation, impact, and challenges of Laila 24/7.
- Case analysis is conducted to deeply understand the context and dynamics of innovation.

2.5.2. Quantitative Analysis:

- Performance metrics data are analyzed using descriptive statistics (e.g., percentages, means) to measure service efficiency and effectiveness.
- A comparison of the impact of Laila 24/7 with traditional public services and similar innovations in other areas was conducted to highlight the advantages of this innovation.

2.6. Validity and Reliability

- Data Triangulation: Use of multiple data sources (interviews, performance metrics, documents) and data collection methods (qualitative and quantitative) to verify the consistency of findings.

- **Content Validity:** Interview guidelines and data collection instruments were developed based on a literature review and expert input to ensure relevance and adequate coverage.
- **Reliability:** Data collection and analysis procedures are transparently documented to allow for future replication of the study.

2.7. Research Ethics

- This study adheres to ethical principles of research, including informed consent from participants, anonymity and confidentiality of data, and protection against potential risks or harms.

3. RESULTS AND DISCUSSIONS

3.1. Definition and Concept of Laila 24/7

Laila 24/7 is a digital public service initiative that utilizes WhatsApp as the primary communication channel between the government and the public. The core concept of Laila 24/7 is to provide 24/7 access to complaints, consultations, and information related to public services in Jakarta. This service is designed to respond directly and quickly to public needs, thereby reducing wait times and expediting problem resolution.

3.2. Implementation of Technology and Infrastructure

The implementation of Laila 24/7 integrates various technology components, including:

- **WhatsApp Communication System:** Using the WhatsApp platform as a user-friendly interaction medium, it allows people to send messages, documents, or images as a form of direct complaint (Ananda et al., 2023).
- **Artificial Intelligence (AI):** The application of AI helps in the classification and prioritization of complaints, so that officers can provide appropriate and fast responses (Wahyudi, 2023).
- **BBPOM Centralized Database:** This system integrates drug and food safety data through collaboration with the Food and Drug Monitoring Agency, so that complaints regarding unsafe products can be immediately followed up through digital forensic verification and investigation (Meutia & Luthfi, 2025).

3.3. Laila 24/7 Operational Process

Laila's 24/7 operational implementation is based on standardized digital governance.

Operational processes include:

- **Complaint Receipt:** The public sends messages via WhatsApp which are received by an automated system.
- **Complaint Classification:** AI performs an initial analysis of the message content to determine the type of complaint, whether it relates to administrative services, product safety, or other aspects.
- **Task Distribution:** Once classified, the system distributes complaints to relevant units, such as relevant agencies or BBPOM for product safety follow-up.
- **Monitoring and Evaluation:** Each complaint is tracked until resolved, and the public satisfaction index is measured periodically.

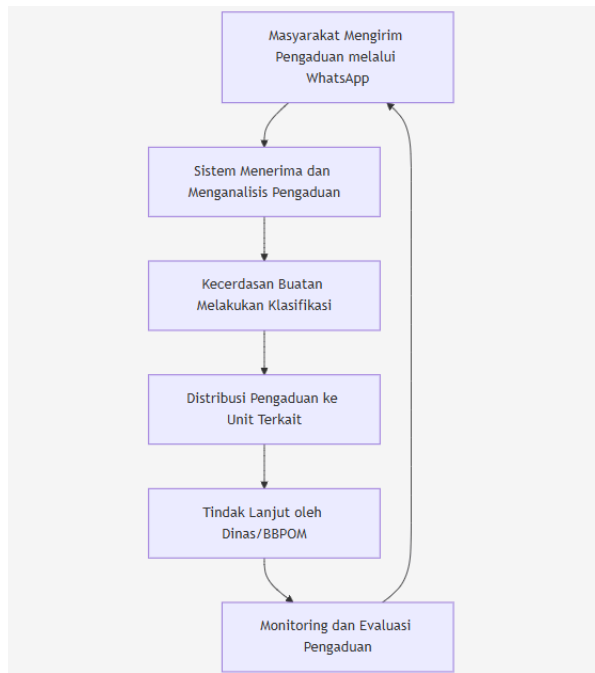


Figure 1.
Laila 24/7 service procedures

3.4. Impact and Benefits of Laila 24/7 Innovation

Laila 24/7's innovation has had a number of significant positive impacts on the quality of public services in Jakarta. These impacts can be outlined as follows:

3.4.1.Improved Access and Responsiveness

Through WhatsApp-based services, the public can access information and file complaints at any time without having to physically visit the service office. This increases convenience and efficiency, especially for people living in areas far from service offices. 2 A study of the effectiveness of consultations and complaints in the Bintan Regency found that a rapid response and an organized administrative process had a positive impact on the Public Satisfaction Index, which reached 87%.

3.4.2. Optimizing Resource Usage

The implementation of Laila 24/7 allows the government to optimize the allocation of human and technological resources. By using an automated system for classifying and distributing complaints, officers can focus more on handling cases that require direct intervention. This optimization provides high operational efficiency and reduces administrative workload.

3.4.3. Proactive Approach to Product Safety

Through collaboration with the Food and Drug Monitoring Agency (BPOM), this innovation not only handles administrative complaints but also ensures product safety, particularly in the pharmaceutical and food sectors. The use of a centralized database allows for rapid verification of reported problematic products and supports digital forensics processes to gather electronic evidence for law enforcement. This is crucial for protecting consumers from potentially harmful products.

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3.4.4. Increasing Public Trust in Public Services

The transparency and accountability of the Laila 24/7 system has increased public trust in government agencies. Regular evaluation reports and the measurement of the Public Satisfaction Index are key indicators of the success of this innovation and foster better relations between the government and the public.

The following is a comparative table of the impact of Laila 24/7 innovation with traditional public services and similar innovations in other areas:

Table 1 Comparison of the Impact of Digital Public Services		
Aspect	Traditional Public Services	Laila Innovation 24/7 (Jakarta)
Service Access	Limited (working hours & physical location)	24/7 with AI integration
Response Speed	Slow	Faster & automatic
Transparency & Accountability	Limited	High (real-time monitoring)
Product Security Integration	Generally not integrated	Integrated with BBPOM
Utilization of Technology	Minimal	Integration of WhatsApp, AI, and database

The table above shows that Laila 24/7 innovation offers an integrated solution to the problems of service access, responsiveness, and product security that are not optimally addressed by traditional models or similar innovations in other areas.

3.5. Integration of Supporting Technologies: WhatsApp, Artificial Intelligence, and the BPOM Security System

3.5.1. WhatsApp's Role as a Public Service Medium

WhatsApp is a very popular and easily accessible instant messaging application. In the context of Laila 24/7, WhatsApp is used as the primary medium for public complaints and consultations. The platform's advantage is its ability to simplify interactions between the public and government agencies, reduce the need for face-to-face meetings, and expedite the complaint handling process (Ananda et al., 2023).

3.5.2. Application of Artificial Intelligence (AI)

The use of AI technology in Laila 24/7 is designed to:

- Automatic Complaint Classification: AI analyzes the content of incoming messages and groups complaints based on categories, such as administrative services, product safety, and other issues (Wahyudi, 2023).
- Prioritization of Follow-Up: Based on severity and urgency, AI helps determine the priority of complaint handling so that cases requiring rapid intervention can be responded to immediately.
- Big Data Processing: Given the large amount of complaint data, AI enables real-time data analysis, providing useful insights for continuous service improvement.

3.5.3. Integration with the BPOM Product Safety Database

Laila's 24/7 innovation not only handles administrative complaints but also integrates with the product safety system managed by BBPOM. This integration enables:

- Automatic Product Verification: Data on products reported as problematic can be quickly verified through the centralized BBPOM database.

- Implementation of Digital Forensic Investigations: If indications of violations of drug and food safety standards are found, the data can be used as evidence in further investigations by the authorities (Meutia & Luthfi, 2025).
- Multi-Agency Collaboration: Synergy between digital public services and BBPOM increases the effectiveness of law enforcement and consumer protection, and ensures that products circulating in the market meet established safety standards.

3.6. Challenges and Future Strategies in the Digital Transformation of Public Services

While Laila 24/7's innovation promises numerous benefits, there are challenges and potential obstacles that need to be addressed to ensure optimal digital transformation of public services.

3.7. Technology and Infrastructure Challenges

Service participants in areas with inadequate network infrastructure may experience difficulty consistently accessing Laila's 24/7 services. Furthermore, in processing complaint data and verifying products, personal data protection and cybersecurity must be ensured to prevent information leaks and data misuse (Meutia & Luthfi, 2025).

3.8. Social and Cultural Challenges

Not all segments of society have the understanding and skills to optimally utilize digital technology. This digital literacy gap poses a significant challenge, particularly for older adults, traditional business owners, and communities in remote areas with limited access to digital infrastructure (Sá et al., 2021). Without adequate understanding of menu navigation, AI features, or WhatsApp complaint mechanisms, the potential for fully utilizing Laila's 24/7 service is hampered. Therefore, an intensive education and outreach strategy—through face-to-face training, multilingual video guides, and collaboration with local communities—is needed to increase inclusive adoption of this platform.

The success of digital transformation depends not only on technological sophistication but also on public perception of the effectiveness and responsiveness of services (David et al., 2023). While innovations like Laila 24/7 offer technical efficiency, the key to their sustainability lies in how the public perceives their interaction experience. Dissatisfaction due to slow responses, unresolved case escalations, or inaccurate information can erode public trust (Dabalén., 2025). Therefore, regular monitoring through satisfaction surveys, resolution time matrix analysis, and real-time feedback mechanisms are mandatory. Transparency in complaint handling—such as ticket status tracking and progress notifications—is also critical in building a trusting relationship between the government and citizens.

3.9. Strategy and Action Plan

To address these challenges, several strategies and action plans can be implemented, including improving digital infrastructure, training and educating the public, strengthening security systems, and providing monitoring, evaluation, and feedback. First, the government needs to invest in the development of reliable network infrastructure and information systems to optimally support Laila's 24/7 service operations. A robust infrastructure will ensure smooth and responsive service operations (Delos et al., 2024).

Second, outreach and training programs on the use of digital applications, particularly WhatsApp and artificial intelligence (AI) features, must be implemented across all regions to improve public digital literacy (Mulyani et al., 2024). This is crucial for enabling the public to maximize technology utilization and reduce the existing digital divide (AlMotagally, 2023). Furthermore, strengthening security systems is also crucial, with collaboration with the Food and Drug Monitoring Agency (BPOM) and cybersecurity units necessary to ensure that all

complaint and transaction data is secure and meets international standards (Prastowo & Sudiana, 2024).

Finally, monitoring and evaluation must be conducted routinely using performance indicators such as the Community Satisfaction Index to ensure that all complaints and input from the public are immediately addressed by the relevant parties (Djatkiko et al., 2025). Evaluation methods such as online surveys and feedback queries will be very useful in obtaining accurate and appropriate input.

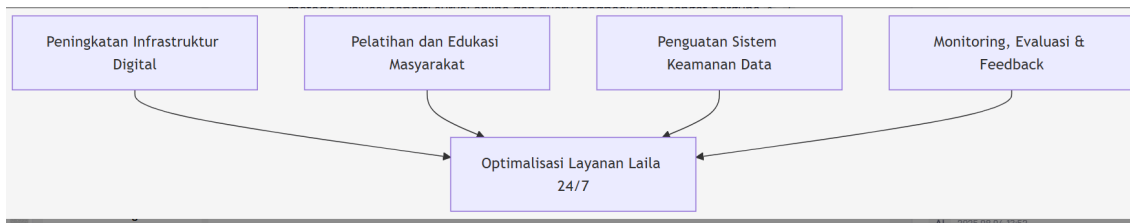


Figure 2.
Laila 24/7 service improvement strategy

4. CONCLUSION

The digital transformation of public services through the Laila 24/7 innovation in Jakarta has proven to be a strategic step in improving the accessibility, transparency, and security of public services. This service not only allows for 24/7 complaint submission and information access via WhatsApp, but is also supported by artificial intelligence (AI) that significantly improves the speed and accuracy of responses. The integration of technology—particularly AI and the BBPOM centralized database—has been a key differentiator from traditional service models, providing comprehensive solutions to administrative challenges while ensuring the safety of drug and food products. The positive impact on public satisfaction is reflected in case studies in areas such as Bintan Regency and digital health innovations in Padang, which demonstrate the potential for further improvement through similar approaches. However, technological, cultural, and data security challenges require systematic anticipation through infrastructure improvements, public education, and strengthening data protection systems. Key findings confirm that: (1) digital channels accelerate efficient complaint handling, (2) the integration of AI and a centralized security system is crucial for verifying risky products, and (3) a holistic strategy based on infrastructure, education, and monitoring is key to the success of digital transformation in the modern era. Thus, Laila 24/7 has the potential to revolutionize the public service ecosystem in Jakarta and become a reference model for integrating advanced technology to address the challenges of product administration and security amidst global digital acceleration.

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