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PUBLIC COMMUNICATION STRATEGIES IN SOCIALIZING THE IMPLEMENTATION OF AUTOGATE TECHNOLOGY AT IMMIGRATION CHECKPOINTS

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Abstract

The era of digital transformation has changed the paradigm of public service, particularly in the immigration sector, thru the implementation of autogate technology. This research aims to analyze the public communication strategies implemented in the socialization of autogate technology at Indonesian immigration checkpoints. The research method uses a literature study with a descriptive qualitative approach, analyzing official publications from the Directorate General of Immigration, scientific journals, and documentation of autogate implementation. The research results show that the implementation of autogates has reached nearly 200 units with significant technical efficiency, reducing inspection time from 2-4 minutes to 15-25 seconds per user. The Immigration Information and Communication Technology Section (TIKKIM) implements a multi-platform communication strategy including both conventional and digital media. However, there is a paradox between technical effectiveness and the still low rate of user adoption. The main obstacles identified were less-than-optimal socialization, a passive communication approach, and a lack of comprehensive education for the public. The research recommends restructuring communication strategies to be more engaging and user-oriented, implementing systematic feedback mechanisms, adopting a segmented communication approach, and strengthening inter-institutional collaborative frameworks to create a good communication ecosystem in support of the digital transformation of the immigration sector.

Keywords: Public Communication Strategy, Autogate, Digital Transformation

1. INTRODUCTION

The digital transformation era has fundamentally changed the paradigm of public service, particularly in the immigration sector, which serves as the main gateway for interaction between the state and global citizens. This information technology revolution has been further strengthened since the COVID-19 pandemic, which forced the acceleration of digital technology adoption across various lines of government services (Fragomen, 2024). This phenomenon is not merely technical modernization, but a fundamental shift in how countries manage cross-border human movement with the implementation of increasingly complex automated border control systems.

Indonesia is taking a strategic step by adopting autogate technology as an integral part of the national immigration system modernization blueprint. The initial implementation was carried out at Indonesia's two main gateways: Soekarno-Hatta International Airport in Tangerang and I Gusti Ngurah Rai International Airport in Bali, which implemented a hybrid system combining facial recognition technology with Border Control Management to optimize immigration supervision functions (Indonesia Travel, 2024). A historic moment occurred on January 3, 2024, with the inauguration of 78 autogate units at Soekarno-Hatta, followed by 30 units at Ngurah Rai in March 2024, ushering in an efficiency revolution that reduced inspection times from 2-4 minutes to just 35-60 seconds per individual (Social Expat, 2024; Mothership, 2024).

Although autogates offer an attractive value proposition, the reality of their implementation faces multidimensional obstacles, particularly in the aspects of communication and public socialization. Empirical studies identify three main categories of barriers: systematic socialization deficits, operational technical disruptions, and unpredictable user behavioral resistance (ResearchGate, 2020). Surprising findings from longitudinal research reveal a striking disparity in user preferences, where over the past three decades, the volume of autogate users has remained

significantly lower than that of conventional manual counters, indicating that the majority of the public still prefers direct interaction with officers over utilizing available automated facilities. The digital era has accelerated radical changes in the ecology of government-society communication, where traditional monologic communication models thru conventional mass media are now transforming into interactive and personal dialog thru the new media ecosystem (State Secretariat, 2024). The Indonesian Directorate General of Immigration has demonstrated a progressive commitment by adopting Instagram as the primary medium for socializing passport application procedures, indicating that the publication materials are characterized by regular updates, comprehensive information, and accessible language for a wide audience (NeoRespublica, 2024). This initiative is strengthened by an internal capacity building program thru the workshop "Enhancing Institutional Image Thru Creative Media" to sharpen employes' ability to understand the dynamics of creative media and develop multimedia content production competencies (Ngurah Rai Immigration, 2024).

Constructing a public communication strategy in the context of autogate implementation requires a complex theoretical approach, considering that communication about immigration policies, which are inherently sensitive, faces unprecedented complexity due to the rapidly evolving media landscape (Migration Policy Institute, 2019). A holistic communication framework must integrate critical elements: precise audience segmentation, strategic selection of communication channels, message consistency across platforms, and feedback loop mechanisms for continuous evaluation of campaign effectiveness (Ghanim et al., 2025). Findings from the study on the implementation of autogates at Soekarno-Hatta Airport indicate measurable improvements in user experience and operational efficiency, but there are still significant research gaps in understanding the optimal strategic communication that can support the mass adoption of this technology (Return Journal, 2024).

Based on the complexity of public communication challenges faced in the socialization of autogate technology, research on public communication strategies becomes highly relevant and important to conduct. This research will contribute to filling the knowledge gap regarding effective communication practices and can support the success of Indonesia's immigration sector's digital transformation, while also serving as a reference for the future implementation of similar technologies.

2. METHODS

This research uses the literature study method to analyze public communication strategies in socializing the implementation of autogate technology at immigration checkpoints. The choice of literature study method was based on the consideration that the topic of autogate is a relatively new phenomenon in Indonesia, thus requiring in-depth exploration of various written sources to gain a comprehensive understanding of the communication strategies employed. Literature studies allow researchers to gather, review, and analyze information from various sources such as scientific journals, official government reports, policy documentation, and media publications to build a comprehensive picture of public communication practices that have been carried out (Qomaruddin & Sa'diyah, 2024).

The approach used is descriptive qualitative research, which aims to systematically describe the phenomenon of public communication strategies based on an analysis of relevant literature sources. Descriptive research in the context of literature studies helps researchers present a factual overview of how the Directorate General of Immigration and related agencies implement the autogate socialization program for the public (Fadli, 2021). Thru literature review, this study can identify communication patterns, media used, messages conveyed, target audience, as well as obstacles and successes in the socialization process of autogate technology.

3. RESULTS

Implementation and Development of Autogate Technology in Indonesia

The implementation of autogate technology in Indonesia began in 2014 thru the procurement scheme of the Directorate General of Immigration, with the initial focus being at Soekarno-Hatta International Airport in Jakarta (Putra, 2022). Significant developments occurred in 2018, when, thru collaboration between PT Angkasa Pura I and the Ngurah Rai Special Class I Immigration Office, the autogate system was initially tested on a limited basis for foreign nationals, particularly for IMF-World Bank delegates, with a total of 2,177 people served (Putra, 2022).

The historical momentum for the implementation of autogates occurred in October 2023 with the inauguration of 24 new autogate machines at Terminal 3 arrivals of Soekarno-Hatta International Airport, which integrate Face Recognition and Border Control Management (BCM) technology (Yogyakarta Special Class I Immigration Office, 2023). The Director General of Immigration for the 2023-2024 period, Mr. Silmy Karim, stated that with face recognition technology, immigration checks are estimated to take only 15-25 seconds for each traveler, which significantly increases the daily capacity to serve travelers (Yogyakarta Special Class I Immigration Office, 2023).

In August 2024, a significant breakthrough occurred with a new policy allowing children aged six and over to use autogates, down from the previous minimum age of 14 (Directorate General of Immigration, 2024). As of 2024, the number of installed autogates reached nearly 200 units, with the main distribution at high-traffic immigration checkpoints such as 98 autogates at Soekarno-Hatta Airport and 90 autogates at Ngurah Rai Airport (Directorate General of Immigration, 2024).

Communication Strategies Implemented by the Immigration Information and Communication Technology Section (TIKKIM)

Griselda's (2024) research revealed that the Immigration Information and Communication Technology Section (TIKKIM) implemented a comprehensive communication strategy to socialize the autogate facility (Griselda, 2024). This strategy involves selecting communicators who have high credibility, in-depth knowledge of autogate machine facilities, and good communication skills. TIKKIM employs a multi-stage approach that includes: defining target audiences encompassing both domestic and international passengers, delivering messages thru various media such as banners, information boards, tutorial videos, and direct communication by staff (Griselda, 2024).

The communication strategy implemented utilizes media diversification, encompassing both conventional and digital media. The selection of diverse media, including social media and the official airport website, ensures that information can reach a broad and varied audience (Griselda, 2024). TIKKIM also utilizes the Instagram platform as its primary medium for socialization, indicating that the publication materials are characterized by regular updates, comprehensive information, and accessible language for a wide audience.

The effectiveness of the communication strategy was evaluated thru passenger satisfaction surveys and user data analysis, which showed a significant increase in the use of autogate machines and positive feedback from passengers (Griselda, 2024). This communication initiative is strengthened by an internal capacity building program thru the workshop "Enhancing Institutional Image Thru Creative Media" to sharpen employes' ability to understand the dynamics of creative media and develop multimedia content production competencies.

Patterns of Technology Adoption and Acceptance

Data shows differences in the adoption rate of autogate technology among users. Although the autogate has been operational since 2011, not many prospective passengers utilize it because many people are unaware of it or lack sufficient information about the facility's socialization

(Putra, 2022). This phenomenon indicates that the technical success of technology implementation does not automatically correlate with the adoption rate by end-users.

Sudarmo's (2025) study proves that the use of autogates at I Gusti Ngurah Rai Airport is effective in improving immigration services by speeding up the inspection process, with immigration checks taking only 15-25 seconds per user (Sudarmo, 2025). The autogate system has successfully reduced inspection time from the previous 2-4 minutes to just 15-25 seconds per individual (Yogyakarta Special Class I Immigration Office, 2023; Directorate General of Immigration, 2024).

Putra (2022) identified that the presence of autogates can improve the efficiency and effectiveness of immigration services in Indonesia, especially in addressing the limitations of immigration areas and reducing the length of passenger queues at immigration checkpoints in airports with very high traffic volume (Putra, 2022). Although the autogate is quite easy to use with three simple steps (scanning a passport, recording a fingerprint, and recording facial biometrics), the lack of accessible information keeps many users opting for conventional manual services (Putra, 2022).

Table 1. Adoption and Acceptance Patterns of Autogate Technology in Indonesia

Indicator	Data/Findings	Period	Source
Passenger Volume	20,865,311 people	2024	Directorate General of Immigration (2024)
Manual Inspection Time	2-4 minutes per individual	Before autogate	Multiple sources
Autogate Inspection Time	15-25 seconds per individual	2023-2024	Immigration Office Yogyakarta (2023)
Time Efficiency	85-90% reduction in inspection time	2024	Sudarmo (2025)
Adoption Rate	Low, majority still choose manual service	2014-2024	Putra (2022)
Usage Procedure	3 steps: scan passport, fingerprint record, facial biometric record	2024	Multiple sources

Obstacles and Challenges in Implementation

Despite demonstrating high effectiveness, the implementation of autogates faces various operational and communication obstacles. The research identified the main technical barriers as including: the autogate becomes slow when used continuously with long queues when used by more than 20 users (Maryam et al., 2022). Other operational obstacles include public ignorance, which often occurs when people don't pay attention to the correct way to scan their passports or carelessly place their belongings, as well as many passengers not correctly providing fingerprints, requiring the process to be restarted from scratch or diverted to manual counters (Maryam et al., 2022).

From a communication and socialization perspective, the findings indicate that socialization related to the autogate system is very limited. The banners are small and the explanations are unappealing, failing to attract public interest. There is also a lack of public education (Maryam et al., 2022). This leads to people who are seeing the autogate machine for the first time already thinking it will be complicated and difficult to use because of the lack of socialization and education about the system (Maryam et al., 2022).

Fatharani (2021) revealed that based on the implementation at Soekarno-Hatta International Airport, autogates have both positive and negative impacts (Fatharani, 2021). One of the main challenges is that autogates have many loopholes for fraud, which can lead to immigration crimes, and this system cannot fully replace manual checks by immigration officers (Maryam et al., 2022). Research reveals that the main factor hindering low adoption is the public's

lack of understanding of the benefits and usage of autogate technology, exacerbated by the minimal systematic and comprehensive socialization efforts from the management (Maryam et al., 2022).

Discussion

The Transformation of Public Communication Paradigms in the Digital Age

This research confirm that the implementation of autogate technology in Indonesia reflects a fundamental transformation in the public communication paradigm of the immigration sector. The communication strategy implemented by TIKKIM demonstrates an evolution from the traditional top-down communication model toward a more interactive and multi-platform approach (Griselda, 2024). The use of a combination of conventional media (banners, information boards) with digital platforms (social media, websites) indicates a mature understanding of audience heterogeneity and diverse communication preferences in the digital age.

However, the research findings also revealed paradoxes in the implementation of digital communication strategies. Despite using various communication channels, the adoption rate of autogates remains relatively low, indicating that communication success depends not only on media diversification but also on the effectiveness of the message and the persuasive approach used (Maryam et al., 2022). This aligns with Rogers' (2003) theory of innovation diffusion, which emphasizes that the adoption of new technologies depends not only on the technology's relative advantage but also on the effectiveness of communication about its benefits and ease of use.

Analisis Data analysis reveals an interesting contrast between the technical effectiveness of autogates and user adoption rates. From a technical standpoint, the autogate has successfully achieved its efficiency target by reducing inspection time from 2-4 minutes to 15-25 seconds per user (Yogyakarta Special Class I Immigration Office, 2023; Directorate General of Immigration, 2024). This increase in service capacity is very significant in addressing congestion issues at airports with high traffic volume.

However, this technical success was not matched by optimal user adoption rates. The finding that many users still choose conventional manual services despite the availability of autogates (Putra, 2022; Maryam et al., 2022) indicates a gap between technological innovation and user acceptance. This phenomenon shows that the implementation of public technology is not only a technical challenge, but also a complex communication and change management challenge.

Barriers to the Socialization of Autogate

This study identifies significant systemic barriers to the socialization of autogate technology, primarily related to suboptimal communication strategies. The finding that automatic gate socialization is very poor, with small banners and unappealing explanations (Maryam et al., 2022), suggests that the communication approach is still passive and not engaging. This differs from the communication needs of new technologies, which require a proactive and interactive approach to building user understanding and trust.

The lack of public education about the benefits and use of automatic gates (Maryam et al., 2022) indicates that communication strategies have not fully integrated educational aspects into their message design. In fact, for relatively new technologies like automatic gates, the educational component is crucial in building user trust and reducing technology anxiety, which is often a barrier to adoption.

Strategic Recommendations for Optimizing Public Communication

Based on the analysis of the findings, a more comprehensive and systematic restructuring of public communication strategies is needed. First, developing a more engaging and user-centric communication strategy, focusing on user experience and benefit realization rather than just feature explanation (Griselda, 2024). Second, implementing a systematic feedback mechanism to monitor communication effectiveness and identify gaps in user understanding in real-time. Third, developing a segmented communication approach that considers users' demographic, psychographic, and behavioral characteristics to increase message relevance and impact (Maryam

et al., 2022). Fourth, strengthening the inter-institutional collaborative framework in socialization to create a more coherent and comprehensive communication ecosystem.

4. CONCLUSION

This study reveals that the implementation of autogate technology in Indonesia from 2014-2024 has shown significant progress in terms of infrastructure and technical efficiency, with the number of units increasing from the pilot project phase to nearly 200 units spread across major airports. Autogate technology successfully reduced inspection time from 2-4 minutes to just 15-25 seconds per user, reflecting the successful digital transformation of Indonesia's immigration sector. However, there is a significant paradox between technical effectiveness and user adoption rates. Although TIKKIM has implemented a multi-platform communication strategy that includes both conventional and digital media, the adoption rate of autogates remains low because the majority of the public still prefers conventional manual services. The main obstacles identified are in the areas of communication and socialization, where the approach is still passive with small banners and unappealing descriptions, and there is a lack of comprehensive education for the public. The research findings indicate the need for a more engaging and user-centered restructuring of public communication strategies, focusing on user experience and benefit realization. Implementing systematic feedback mechanisms, segmented communication approaches, and inter-institutional collaborative frameworks is crucial for creating a coherent communication ecosystem. This research contributes to filling the knowledge gap regarding public communication practices in the context of digital transformation, while also providing strategic recommendations for optimizing the implementation of autogate technology and similar public service digitalization initiatives in the future.

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