

Assessing Passport Service Quality in the Digital Era: User Perceptions of the M-Paspor Application at the Class I Immigration Office TPI Jambi

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Abstract

This article discusses the digital transformation of passport services as part of public service reform in the immigration sector. The study analyzes public perceptions of the quality of M-Paspor-based passport services at the Class I Immigration Office TPI Jambi by integrating the SERVQUAL and e-service quality perspectives. The findings demonstrate that the implementation of digital-based passport services has been perceived very positively by service users, particularly in terms of accessibility, procedural certainty, and service efficiency. The consistency of high scores across service quality dimensions reflects the successful integration of digital systems with conventional service mechanisms. However, the analysis also reveals that the empathy dimension remains relatively weaker, indicating the need to strengthen human interaction and user experience within digital public services. Overall, this study confirms that digital transformation has contributed to improving passport service quality, while emphasizing that sustainable public value creation requires a balanced approach between technological innovation and user-oriented service delivery. The results provide empirical insights for strengthening digital public service governance in the immigration sector

Key words: Passport Service Quality, Digital Transformation, SERVQUAL

INTRODUCTION

The government, as the provider of public services, has a fundamental responsibility to ensure the delivery of quality, responsive services that are oriented towards public needs. In the context of modern governance, the quality of public services is no longer understood

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merely as fulfilling administrative procedures, but rather as a strategic instrument for building public trust, institutional legitimacy, and sustainably improving social welfare (Osborne et al., 2021; Mikalef et al., 2023). Along with the development of information technology and increasing public expectations, the transformation of public services has become a key agenda item in public sector reforms in various countries.

The digitalization of public services has driven a paradigm shift in service delivery from a conventional bureaucratic approach to a more adaptive, transparent, and user - *centered approach* . From a public service management perspective, service quality and user satisfaction are viewed as key indicators of public organization performance, particularly in the era of *digital public service delivery* (Bazarah et al., 2021; Al-Hujran et al., 2022). Effective public services are determined not only by the availability of technology but also by the ability of public organizations to integrate digital innovation with the needs, expectations, and perceptions of the public as service users.

Legally, the provision of public services in Indonesia is based on Law Number 25 of 2009 concerning Public Services. Accordingly, the government is encouraging digital transformation of the public sector through the implementation of the Electronic-Based Government System (SPBE), as stipulated in Presidential Instruction Number 3 of 2003 and Presidential Regulation Number 95 of 2018. This policy emphasizes that the use of information technology is a crucial prerequisite for improving the efficiency, effectiveness, and quality of public services.

One public service sector with a high level of interaction with the public is immigration services, particularly passport services. As an official state document, the passport plays a strategic role in supporting citizens' international mobility for various purposes, such as education, employment, tourism, and business. This increase in global mobility has driven increasing public demand for passport services that are fast, accessible, and free from complicated procedures. However, conventional passport services often face various problems, such as long queues, limited quotas, and administrative inefficiencies that impact public satisfaction.

Responding to these challenges, the Directorate General of Immigration developed a digital-based service innovation through the implementation of the M-Passport application as part of its *e-government implementation* in the immigration sector. The M-Passport application is designed to facilitate online queue registration, passport application submission, and service scheduling to improve efficiency, transparency, and convenience (Siagian, 2022). The Jambi Class I Immigration Office (TPI) is one of the work units that has implemented the M-Passport application since its national implementation in 2022.

In service quality studies, the SERVQUAL model developed by Parasuraman et al. (1988) is used to measure the gap between user expectations and perceptions through five main dimensions: *tangibles*, *reliability*, *responsiveness*, *assurance*, and *empathy*. With the development of digital-based public services, the SERVQUAL approach has been expanded through the concept of *e-service quality*, which emphasizes aspects of ease of use, system reliability, data security and privacy, and responsiveness of digital services (Zeithaml et al., 2002; Al-Hujran et al., 2022).

Various studies have shown that M-Passport-based passport service innovations have positively contributed to improving the quality of public services (Septiawan et al., 2023). However, the success of digital transformation is not solely determined by technology adoption but also depends heavily on the quality of digital services and the user experience perceived by the public (Mikalef et al., 2023). Although research on digital passport services continues to grow, empirical research integrating the SERVQUAL model and *e-service quality* to measure public perceptions at the regional immigration office level is still limited. Furthermore, studies that place user experience as a key element in assessing the success of immigration service transformation in Indonesia are scarce. Therefore, this study seeks to fill this gap by analyzing public perceptions of the quality of M-Passport-based passport services at the Class I Immigration Office in Jambi.

LITERATURE ANALYSIS AND METHODOLOGY

The transformation of public services through digitalization is an integral part of modern governance reform, aimed at improving service quality, bureaucratic efficiency, and public satisfaction as service users. In the contemporary *public service management paradigm*, service quality is viewed as a key determinant of the success of public organizations in building trust and institutional legitimacy (Osborne et al., 2021). The digitalization of public services serves not only as an administrative tool but also as a mechanism for creating public value by improving user experience and service responsiveness (Mikalef et al., 2023).

In the context of electronic-based public services (*e-government*), digital service quality (*e-service quality*) is a key factor influencing public satisfaction, trust, and continued use of services. Zeithaml et al. (2002) define *e-service quality* as the extent to which an electronic-based service system is able to facilitate the service process efficiently, effectively, and safely. Recent studies show that dimensions such as ease of use, system reliability, data security and privacy, and responsiveness of digital services have a significant influence on the perception of the quality of digital public services (Al-Hujran et al., 2022; Bazarah et al., 2021).

In service quality studies, the SERVQUAL model developed by Parasuraman et al. (1988) is one of the most widely used approaches to measure user perceptions of service quality. This model identifies five main dimensions of service quality: *tangibles* , *reliability* , *responsiveness* , *assurance* , and *empathy* . Although originally developed for the private sector, various studies have shown that SERVQUAL is relevant and adaptable for measuring the quality of public sector services, including digital-based services (Rowley, 2011; Mikalef et al., 2023). Along with the development of information technology-based public services, the SERVQUAL approach has undergone a conceptual expansion by integrating the dimensions of *e-service quality* . This integration allows for measuring service quality not only from the aspect of direct interaction between officials and the public, but also from the performance of the digital system used as a service medium (Parasuraman et al., 2005; Zeithaml et al., 2018). Thus, the combination of SERVQUAL and *e-service quality* provides a comprehensive analytical framework for evaluating the quality of digital public services.

In the context of immigration services, particularly passport services based on the M-Passport application, digital service quality is a determining factor in the success of service transformation. Several studies have shown that the implementation of M-Passport can improve service efficiency, reduce queues, and increase transparency in the service process (Siagian, 2022; Septiawan et al., 2023). However, the literature also confirms that technology adoption without a balance between service quality and human resource readiness has the potential to lead to user dissatisfaction and resistance (Al-Hujran et al., 2022).

Based on the literature review, this study utilizes the SERVQUAL model, enriched with an *e-service quality perspective* , as the primary analytical framework for measuring the quality of M-Passport-based passport services. The analysis focuses on public perceptions as service users to obtain an empirical picture of the extent to which the digital transformation of immigration services has met public expectations and sustainably improved the quality of public services.

METHODOLOGY

This study uses a descriptive quantitative approach to describe public perceptions of the quality of passport services through the M-Passport system at the Class I TPI Jambi Immigration Office. The quantitative approach was chosen because it allows for objective and structured measurement of service user perceptions through standardized service quality indicators (Creswell & Creswell, 2018; Hair et al., 2019). The study population included all passport service users at the Class I TPI Jambi Immigration Office, with a sample of 100 respondents determined using an *accidental sampling technique* , namely respondents who were accidentally encountered and willing to participate in the study. This

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technique is often used in public service research and user experience-based studies when the population is dynamic and difficult to identify with certainty (Etikan et al., 2016; Taherdoost, 2016).

Primary data were collected through a structured questionnaire using a four-point Likert scale, chosen to reduce the tendency for neutral responses and encourage respondents to provide more assertive assessments of perceived service quality (Garland, 1991; Hair et al., 2019). Secondary data were obtained through a documentary study of public service regulations, institutional reports, and relevant scientific literature. The research instrument was developed based on public service indicators as stipulated in the Decree of the Minister of Administrative and Bureaucratic Reform Number 63 of 2003, which were then mapped into the five dimensions of SERVQUAL: *tangibles*, *reliability*, *responsiveness*, *assurance*, and *empathy*. This approach aligns with public service quality measurement practices that combine normative government indicators with the theoretical framework of SERVQUAL and *e-service quality* (Parasuraman et al., 1988; Parasuraman et al., 2005; Rowley, 2011). Data analysis was carried out by calculating the Average Respondent Rating (NRR) for each indicator and dimension of service quality, then analyzed descriptively quantitatively to interpret public perceptions of the quality of public services and identify aspects of services that need to be maintained or improved (Field, 2018; Sekaran & Bougie, 2020).

RESEARCH AND RESULTS

This study involved 100 respondents who used passport services at the Class I TPI Jambi Immigration Office. The measurement of public service quality was carried out by referring to public service indicators as stated in the Decree of the Minister of Administrative and Bureaucratic Reform Number 63 of 2003. These indicators were then conceptually mapped into five dimensions of SERVQUAL service quality, namely *tangibles*, *reliability*, *responsiveness*, *assurance*, and *empathy* as developed by Parasuraman et al. (1988).

SERVQUAL Di-mensions	Service Indicators (Minister of Administrative and Bureaucratic Reform Decree No. 63/2003)	NRR Per Indicator	Perception Category
Tangibles	Completeness of Facilities and Infrastructure	3.43	Very Positive
	Service Convenience	3.46	Very Positive
	Average Tangibles	3.44	Very Positive
Reliability	Simplicity of Procedure	3.43	Very Positive
	Clarity of Service	3.45	Very Positive

	Certainty of Service Time	3.46	Very Positive
	Service Accuracy	3.45	Very Positive
	Average Reliability	3.45	Very Positive
Responsiveness	Service Responsibility	3.45	Very Positive
	Ease of Access to Services	3.43	Very Positive
	Average Responsiveness	3.44	Very Positive
Assurance	Service Security	3.47	Very Positive
	Certainty of Procedures and Services	3.46	Very Positive
	Average Assurance	3.47	Very Positive
Empathy	Discipline, Courtesy, and Friendliness of Officers	3.41	Very Positive
	Average Empathy	3.41	Very Positive
—	Overall Average Value	3.44	Very Positive

The measurement results show that all SERVQUAL dimensions are in the “very positive” category, with an overall average value of 3.44. This finding indicates that passport services provided through the M-Passport system have been able to meet, or even exceed, the expectations of the public as service users. Theoretically, this condition reflects the match between the expectations and perceptions of service users, which is the core concept of service quality according to the SERVQUAL model (Parasuraman et al., 1991).

Tangible Dimension

Tangibles dimension obtained an average score of 3.44, indicating that the public considered the physical facilities, infrastructure, and comfort of the service area to be adequate and supportive of the passport service process. In the context of digital-based public services, the *tangibles aspect* encompasses not only the physical condition of the service office but also the appearance of the system interface, the availability of supporting devices, and the overall comfort of the service environment. Zeithaml et al. (2018) emphasized that in technology-based services, the user experience is still influenced by a combination of the quality of the digital system and the support of physical facilities. This finding aligns with Al-Hujran et al. (2022) who stated that the quality of e-government services will be optimal if supported by adequate physical and digital infrastructure.

Reliability Dimension

reliability dimension obtained an average score of 3.45, reflecting the reliability of passport services in terms of procedural simplicity, information clarity, certainty of service times, and accuracy of administrative processes. From a SERVQUAL perspective, *reliability*

is a key dimension that indicates the ability of public service organizations to provide services consistently and in accordance with established standards (Parasuraman et al., 1988). A high score on this dimension indicates that the M-Passport system is able to reduce procedural uncertainty and increase service certainty. These results support the findings of Mikalef et al. (2023) who emphasized that digital transformation in the public sector can improve service performance if it can guarantee the reliability of service processes and outcomes.

Responsiveness Dimension

Responsiveness dimension obtained an average score of 3.44, indicating that officers were considered responsive in providing services, including in handling complaints and providing easy access to services. Responsiveness in public services refers to the willingness and ability of service providers to assist users quickly and appropriately (Zeithaml et al., 2018). The presence of the M-Passport system allows users to schedule services independently, thereby significantly reducing waiting times and increasing service efficiency. This reflects a paradigm shift in public services towards an approach that is more oriented towards the needs and convenience of users (*user-centered service*).

Assurance Dimension

The assurance dimension achieved the highest average score, at 3.47. This value indicates a high level of public trust in service security, procedural certainty, and officer professionalism. In the context of e-service quality, *assurance* is closely related to data security, user privacy, and service provider credibility (Parasuraman et al., 2005). This finding aligns with Al-Hujran et al. (2022), who asserted that system security and procedural clarity are key determinants of user trust and satisfaction in e-government services.

Dimension of Empathy

Empathy dimension achieved an average score of 3.41, which, while still in the very positive category, is the lowest compared to other dimensions. This indicates that the discipline, politeness, and friendliness of officers still require greater attention. In digital-based public services, direct interaction between officers and users tends to decrease, but the quality of the remaining interactions still plays a crucial role in shaping perceptions of service quality. Osborne et al. (2021), using a *service-dominant logic perspective*, asserts that the value of public services is created not only through systems and technology but also through the quality of interactions and user experiences during the service process.

Overall, the results of this study confirm that the implementation of the M-Passport system at the Class I Immigration Office (TPI) in Jambi has successfully improved the quality of public services from the perspective of service users. However, the variation in values across dimensions indicates that the success of digital transformation needs to be balanced with strengthening human resources, particularly in building empathy, communication, and the quality of service interactions. Therefore, digital-based public service transformation is not only oriented towards system efficiency but also towards creating a humanistic and sustainable service experience.

CONCLUSION

This study shows that the quality of digital-based passport services through the M-Passport system at the Class I TPI Jambi Immigration Office is in the **very positive category**, with an overall average value of **3.44**. All SERVQUAL dimensions *tangibles*, *reliability*, *responsiveness*, *assurance*, and *empathy* show consistent service performance and are able to meet the expectations of the public as service users.

The *assurance* dimension received the highest score, reflecting a high level of public trust in the security of services, the certainty of procedures, and the professionalism of officers. Meanwhile, the *empathy dimension* received the lowest score, although it remained in the very positive category, indicating that the quality of interactions and personal attention in services still require strengthening. These findings confirm that the success of digital-based public service transformation is determined not only by technology adoption but also by the quality of service and the direct user experience.

RECOMMENDATIONS

Based on the research results, the Jambi Class I Immigration Office (TPI) is advised to maintain and improve the reliability of the M-Passport system by strengthening procedural consistency, timely service delivery, and accurate administrative processes. Furthermore, improving human resource capacity needs to be a primary focus, particularly in fostering empathy, effective communication, and a service-oriented approach to service users. Furthermore, periodic evaluation of the quality of digital passport services, involving public feedback, is necessary as part of continuous improvement efforts. For further research, it is recommended to develop analyses by integrating variables such as user satisfaction, public trust, and intention to reuse the service, as well as conducting comparative studies across immigration service units in various regions.

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