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FROM BUREAUCRACY TO EFFICIENCY: ENHANCING SERVICE QUALITY THROUGH E-GOVERNMENT IN REGIONAL LIBRARY

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ABSTRACT

This research seeks to delineate the strategic measures used by local libraries to enhance the quality of users treatments via e-Government, along with the critical aspects that contribute to its success. A qualitative methodology with a case study design was selected for this research. Data were gathered via comprehensive interviews with 16 participants, who were intentionally chosen based on their responsibilities and positions, spanning from the library's primary manager to users. The data were analysed according to the Miles & Huberman framework, comprising four iterative stages: data collection, condensation, presentation, and conclusion. This research identified multiple strategic measures undertaken by the library in the execution of e-Government, encompassing the digitisation of administrative and user records, the integration of services and information systems, the promotion of transparency and real-time reporting, as well as facilitating user participation and access to digital services. This research theoretically underscores the significance of deploying e-Government in regional libraries to enhance public services and consumer satisfaction. The deployment of e-Government can improve the efficacy and efficiency of services, enabling public library services to be delivered more swiftly, economically, and satisfactorily.

KEYWORDS: E-Government, Users Services, Service Quality, Library Management, Public Library.

1. INTRODUCTION

A library is a place where people can access information and knowledge for life long education, personal growth, and community engagement (Egamberdiyeva, 2025). However, good library does not occur automatically; it requires continuous promotive and preventive efforts. In Indonesia, the demand for quality library services continues to increase along with the rising awareness of the public, the level of education, and the middle class's demand for better library services (Khan et al., 2023). To respond to this condition, various libraries are striving to improve the quality of their services through various approaches such as e-government performance (Snead, 2014), strategic management (Kamran et al., 2020), the quality function deployment method (Wulandari et al., 2017), and leave behind the old, complicated and tiring bureaucratic system.

The quality of library services is also greatly influenced by marketing strategies and user perceptions of the services. Muspita & Susanti (Muspita & Susanti, 2024) emphasize the importance of a comprehensive marketing strategy to build competitive advantage, while Mamakou et al. (Mamakou et al., 2024) highlight the importance of libraries aligning their services with consumer expectations. Effective communication is an important factor in building the public image of a library (Emojorho, 2010). In addition, good library governance and effective leadership are crucial elements in maintaining service quality and user safety (Akparobore & Omosekejimi, 2020). Without the active and systematic involvement of management, the improvement of service quality will be difficult to achieve sustainably.

Many studies have revealed a strong correlation between service quality perception and user satisfaction, which impacts loyalty and library choice (Tsai, 2013). Therefore, service quality measurement methods such as SERVQUAL (Parasuraman, 2002) become important for the consistent evaluation and improvement of services. Although many studies discuss strategies for improving library quality, there is still a significant gap regarding the implementation of e-Government in supporting the quality of library services. E-Government, through the utilization of information and communication technology (ICT), is believed to be able to enhance transparency, administrative efficiency, and user engagement in services (Wa & Zhang, 2023).

Conceptually, e-Government is defined as a transformational effort undertaken by the government or institutions to enhance the efficiency

of public services through the use of ICT (Fang, 2002; Harfouche & Robbin, 2015; Nations, 2015). In the context of libraries, e-Government includes the integration of information systems for online registration, electronic user records, queue systems, and user feedback. Studies show that the success of e-Government is greatly influenced by technological readiness, organizational leadership, and digital governance (Al-Omari & Al-Omari, 2006; Gil-García & Pardo, 2005; Keramati et al., 2018). In Indonesia, the decentralization of the public sector and the role of local leaders play a significant part in the success of the digitalization of library services (Di Giulio & Vecchi, 2023).

The level of ICT maturity and user engagement also greatly influence the success of digitalization implementation in the library sector (Haider et al., 2025). However, there are still challenges such as low digital literacy among users and their perception that digital services are merely supplementary. Digital library education is key in bridging this gap (Caffrey et al., 2024). In addition, issues of legality, data privacy, and staff-user relationships can also hinder the effectiveness of e-Government projects, necessitating comprehensive planning, including data security guarantees and the strengthening of library information systems (Farid et al., 2025).

Thus, e-Government has great potential in improving the quality of users services in regional libraries in Indonesia. Through the enhancement of digital literacy, technological readiness, and strategic planning, digital systems can be utilized to drive operational efficiency and user satisfaction. Although the literature on e-Government and digital library services in Indonesia has developed, there is still a significant gap in studies specifically discussing the impact of e-Government on users services in local libraries. Therefore, this research aims to explore the integration of the e-Government approach within the framework of user-centered care library services, as well as to assess its impact on service quality and user satisfaction indicators.

2. RESEARCH METHODOLOGY

This research employs a qualitative methodology utilising a case study design. This strategy was chosen to achieve the primary purpose of the research, which is to thoroughly comprehend the occurrences occurring in the field within a natural setting (Bungin & Moleong, 2007). This research aims to elucidate the dynamics of enhancing library service quality through digital governance at the Users Installation of Public library of Kediri, Indonesia. This research prioritises the natural

surroundings, seeking to generate a comprehensive knowledge through detailed description rather than aiming for generalisation (Lexy, 2011).

The research data acquired through comprehensive interviews with 16 informants, including library directors, users and library personnel, alongside participatory observations conducted over five months (September 2024–February 2025). The length of the interview ranges from 20 - 30 minutes depending on the participant's position and relevance to the topic being asked about. Data saturation was achieved using snowball sampling following purposive sampling (Lofland & Lofland, 1995).

The researcher use triangulation to assure data validity by comparing the outcomes of interviews, observations, and document analysis, as well as undertaking repeated observations to mitigate bias. Inductive data collecting facilitates modifications in research dynamics, as empirical facts from the field underpin the formulation of conclusions (Huberman & Miles, 2002). Qualitative data collecting methods employed to gather data include direct observation, in-depth interviews, and document analysis. By integrating these methodologies, researchers may elucidate the meanings, viewpoints, and dynamics that arise in authentic environments.

2.1. Data Analysis

This study employed a four-stage data analysis process based on the interactive model of Miles et al. (Miles & Huberman, 1994), which includes data collection, data condensation, data presentation, and the filtering of theoretical conclusions. Data is initially gathered through interviews, observations, and documentation, continuing until sufficient information is obtained. This is followed by data condensation, where the researcher filters, codes, and organizes the raw data into thematic categories to avoid overload and focus on key issues. The condensed data is then presented in structured formats—such as narratives, tables, or diagrams—to help identify patterns and relationships. Finally, conclusions are drawn through interpretation and validated using triangulation, member checks, or peer discussions to ensure accuracy and credibility. These phases are not linear but interrelated, requiring continuous reflection and researcher sensitivity throughout the process.

3. RESULT OF RESEARCH

The primary focus of this research is to explore e-government implementation strategies to improve the quality of users services in libraries and its impact

on user satisfaction. Using established procedures for data analysis, the study identified several key themes and important subthemes, as detailed in Table 1.

Table 1: Approaches for Enhancing Service Quality in Librarycare Institutions.

No	Themes	Practical Activities/Sub Themes	Respondents
1	Digitization of Administration and User Records	<ul style="list-style-type: none"> • Implementation of Library Management Information System (HMIS) • Digitization of user electronic library records (ELR) • Implementation of e-Registration and e-Billing 	R1, R2, R3, R6, R8, R10, R12, R15
2	Integration of Services and Library Information Systems	<ul style="list-style-type: none"> • Inter-unit connectivity via intranet network • Integration of services with the main system • Adoption of Library Information Exchange • System interoperability with other libraries and community library centers. 	R2, R4, R5, R7, R12, R14, R16
3	Transparency and Real-Time Reporting	<ul style="list-style-type: none"> • Service quality and unit performance dashboards • User safety incident reporting system • Online monitoring of service waiting times • Publication of service statistics on the official website 	R1, R4, R6, R7, R9, R11, R14, R15
4	User Participation and Digital Service Access	<ul style="list-style-type: none"> • Development of library mobile applications • Libraries teleconsultation services • Self-service for check-in and information • Digital and open user satisfaction surveys 	R1, R3, R5, R6, R8, R10, R12, R14

Source: processed based on data by authors.

Theme 1: Administrative digitalization and user records

Kediri Public Library initiated its e-government implementation by developing Library Information System Management (LISM) as the primary framework for library information management. This system covers the complete service flow, from registration to discharge. Interviews with R1 and R6 revealed that the system is managed by two IT graduates and is supported by LAN infrastructure

and a generator. However, comprehensive standard operating procedures (SOPs) are not yet available for all staff. Although all administrative activities are digital, manual services are still provided for users unable to use electronic systems. Service reporting, particularly for visitors and users, has also been digitalised, although it is not yet fully uniform across units.

The second step is the digitisation of electronic user records (EUR), replacing a manual system deemed inefficient and prone to data loss. Interviews with laboratory staff (R5) and IT personnel (R9) indicated that the EUR makes it easier for librarians to access user records, such as the duration and number of book loans in the library, procedures, and previous prescriptions. In addition to improving service efficiency, the EUR is also designed to connect with the Library Office systems to expedite the claims and reporting process. Research has proven that the implementation of an EUR expedites user decision-making and enhances the continuity of care for users.

The next phase includes digitising the registration systems via e-registration and e-billing, which allows users to register through an app or digital registration without having to queue. Data from respondents R9 and R16 explained, "System is automatically connected to users profile, which helps process claims faster and only requires membership verification to be done once through the HISM system." Furthermore, real-time data synchronisation via system, as reported by R10 and R20, allows for direct libraries membership verification, resulting in user satisfaction among up to 97% of the 430 respondents who used the service.

Theme 2: Integration of Library Services and Information Systems

Kediri Regional Library has established a fiber-optic LAN network to improve the speed and reliability of data transmission between units, replacing the dependence on public networks that sometimes suffer from delay. A library technician (R2) stated, "We established a fiber-optic LAN network between buildings, facilitating access to user record data with latency below 100 milliseconds." The Head of the Loan Unit (R4) explicitly confirmed, "Prior to this system, digital prescriptions from the outuser required 5 minutes to arrive at the staff; now it takes mere seconds." The efficacy of the internal process flow has augmented by over 80%, directly influencing the velocity of service and user decision-making.

The execution of Library Information Exchange (LIE) standard signifies a significant advancement in

library service connectivity. This effort integrates libraries with the national library data ecosystem, enhancing service continuity and complete services support.

Theme 3: Transparency and Real-Time Reporting

The implementation of e-Government at Kediri Regional Library encompasses administrative aspects aimed at enhancing transparency and real-time reporting as indicators of service quality. One of its strategic components is the digital service performance dashboard available in each unit, displaying indicators such as average waiting time, as well as hand hygiene compliance and user satisfaction. The library manager (R1) stated, "We use the dashboard to monitor service excellence and daily user satisfaction." All unit heads can access real-time data." This system enables data-driven decision-making and triggers alerts if indicators exceed the thresholds set by quality management.

The second component is the user safety incident reporting system, which is now digital-based and can be accessed anonymously by all user staff. A senior staff (R7) stated, "We can report near misses and incidents through a web application, which is directly sent to the team, and feedback is provided within 48 hours." He also added that reporting has increased by 37% since this system was implemented, and user staff are no longer afraid to report. This system promotes a proactive safety culture based on learning, not blame, with classified and systematically followed-up reporting.

In addition, the library manages service wait times online through digital displays and the website, which show estimated queues in the outuser department, laboratory, and Loan agency. The registration officer (R11) explained, "The queue is updated directly from HISM, users can see the estimated waiting time on the counter television or through their mobile phones." With this feature, the library can reallocate users and user staff during a surge in visits, before complaints arise. This transparency is supported by the regular publication of service data on the library's official website. This publication not only strengthens public accountability but also enhances public trust and stakeholder engagement with library services.

Theme 4: User Engagement and Accessibility to Digital Services

Kediri Regional Library is developing user-centered services through the integration of interactive digital channels based on a mobile application called Kediri Regional Digital Library. This application provides features such as online

registration, queue status, loan period and the number of books borrowed in the library, all directly connected to the library information system (LISM). The library manager (R1) stated, "This application is integrated with HIS, so users don't need to register twice." Automatic notifications are sent one day before the visit. The use of this application has proven to increase service efficiency, user engagement, and reduce no-show rates by up to 23% according to global literature.

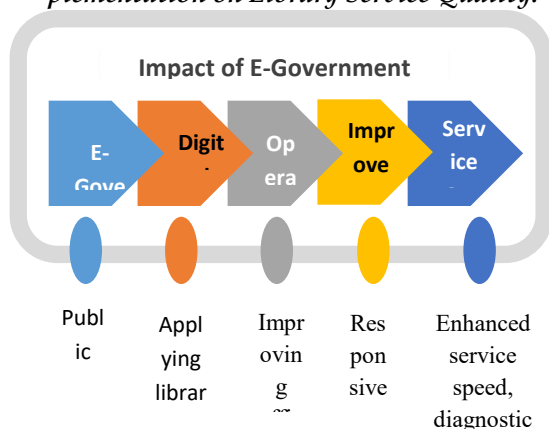
Furthermore, user engagement is strengthened through an open feedback system available in the form of digital surveys via applications, SMS, and tablets in various service units. The head of the user satisfaction unit (R23) stated, "We monitor the weekly satisfaction scores." The KPIs for user and services are immediately adjusted if there is a negative trend." The library's public relations officer (R14) added, "This transparency makes us more responsive, especially regarding facilities and loan

wait times." This approach reflects the principle of Continuous Quality Improvement (CQI), where user involvement is not merely an administrative formality, but rather an important foundation for innovation and the continuous improvement of service quality.

4. DISCUSSION

This study identified four tactics employed by Kediri Regional Library in the implementation of e-government to enhance the quality of users services: service digitalisation, integration of library care information systems, transparency, and user engagement through digital services. The establishment of e-government at Kediri Regional Library, specifically through the digitalisation of administrative and clinical services, has substantially enhanced the quality of users services. The results of this investigation can be depicted in Figure 1.

Fig. 1. The impact of E-Government in implementation on Library Service Quality.



E-government refers to the utilisation of information and communication technology (ICT) by the government to deliver information and public services to citizens. The execution of e-government at Kediri Regional Library necessitates the library's digital transformation. Kediri Regional Library operationalises this through the deployment of a library management information system (HMIS), digitisation of electronic user records (EUR), e-registration, and e-services, thereby enhancing the speed, transparency, and efficiency of service delivery. The digitalisation of user registration, room administration, examinations, and reporting reduces administrative errors and accelerates response times to user requirements. Moreover, the integration of internal systems among units and the synchronisation of data with the Library Department enhance coordination in service delivery. This can enhance the quality of library services,

thereby elevating public contentment.

These findings theoretically correspond with the Technology Acceptance Model (TAM) proposed by Davis (Davis, 1989), which asserts that users' perceptions of ease and system advantages will affect technology acceptance, namely among library professionals and library personnel. The accessibility of data and enhanced labour efficiency via digital technology enable user personnel to prioritise user care over intricate administrative tasks. Numerous prior research findings indicate that e-government in the library sector can improve the efficiency (Pedersen, 2018), openness, and accountability of public services (Tadele, 2020) demonstrates that integrated library information systems enhance the quality of clinical services and user satisfaction.

From the viewpoint of New Public Management (NPM), the adoption of e-government represents a modernisation of public sector management that emphasises efficiency, effectiveness, and a users-focused service approach (Christensen & Lægheid, 2022; Indahsari & Raharja, 2020). At Kediri Public Library, digital system-based users services have demonstrated enhancements in service timeliness, decreased wait times, expedited delivery of user information, and improved user perceptions of service professionalism. Consequently, the deployment of e-government is not just technical digitisation but also a managerial transformation that directly influences the quality of library care services. This indicates that e-government-driven digitalisation can serve as a pivotal method in transforming library care services to enhance

responsiveness and user orientation.

5. CONCLUSION

The execution of e-Government at Kediri Regional Library via four primary strategies—service digitalisation, integration of library care information systems, transparency, and user engagement with digital services—has markedly enhanced service efficiency and the quality of users care. Digitalisation expedites administrative and clinical operations; the integration of information systems improves data

consistency; openness fosters internal and external responsibility; and technological user interaction enhances satisfaction and loyalty. The findings suggest that e-Government serves not only as a technological tool but also as a strategic asset in enhancing the competitiveness of public libraries in the context of digital transformation and library service rivalry. The strategic application of e-government can elevate the quality of library services, hence increasing consumer happiness and loyalty.

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