



Analysis of the Effectiveness of the Implementation of the SEJAK-GO Application (Automatic Free Health Insurance Enrollment System) in the Registration of Regional Government PBPU Participants for BPJS Health at Hospitals

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Abstract

Digital transformation in healthcare services has become one of the key strategies for improving the effectiveness of health administration services, particularly for BPJS Health participants. One of the digital innovations utilized in health administration services is the SEJAK-GO application (Automatic Free Health Insurance Entry System), which is employed in the registration process of Regional Government PBPU BPJS Health participants at hospitals. This study aims to analyze the effectiveness of the SEJAK-GO application implementation in improving the quality of health administration services. The research method employed is a Systematic Literature Review (SLR), analyzing various scientific journals related to the digitalization of BPJS services, Mobile JKN, online registration systems, and Hospital Management Information Systems (SIMRS) within the period of 2021–2026. The review findings indicate that the implementation of digitally-based healthcare service systems is capable of improving administrative service effectiveness through accelerated patient registration processes, reduced service queues, integration of healthcare service data, and increased work efficiency of hospital administrative staff. The implementation of the SEJAK-GO application is interconnected with various BPJS digital service systems as it functions as an automatic data entry system for health insurance participants. Nevertheless, the effectiveness of digital system implementation is still influenced by technology infrastructure readiness, internet network quality, health information system integration, and human resource competency. Accordingly, the SEJAK-GO application has the potential to become a digital innovation that supports the improvement of BPJS PBPU Pemda administrative service quality at hospitals in a more effective, efficient, and integrated manner.

Introduction

Digital transformation in the healthcare sector has been developing rapidly in recent years as part of efforts to improve the quality of healthcare services and the efficiency of public service administration (Wulandari et al., 2025). The digitalization of healthcare services has become one of the important strategies in supporting the achievement of Universal Health Coverage (UHC) as proclaimed by the World Health Organization (WHO) (Serlianti & Rohani, 2025). Universal Health Coverage aims to ensure that all members of society have access to quality healthcare services without experiencing financial barriers (Sudrajat, 2022; Darrudi et al., 2022; Jaca et al., 2022; Debie et al., 2024). In the context of modern healthcare services, the

utilization of information technology has become one of the primary approaches to improving the quality of health administration services, accelerating access to care, and supporting the efficiency of healthcare service systems (Rizqi et al., 2022; Alsharar et al., 2025; Erku et al., 2023; Mohammadzadeh et al., 2023).

In Indonesia, the implementation of Universal Health Coverage is carried out through the National Health Insurance Program (JKN) administered by BPJS Health, based on Law Number 24 of 2011 concerning the Social Security Administering Body (Zaenal & Wahyuningsih, 2025). One of the membership segments within JKN is Non-Wage Recipients and Non-Workers funded by regional governments, commonly referred to as Regional Government PBPU (Aisah, 2022). The Regional Government PBPU group consists of vulnerable communities and impoverished populations who have not yet been covered under the national Contribution Assistance Recipients (PBI) scheme (Saputri & Murniati, 2023). In practice, the administrative process for BPJS Health membership still faces various challenges, including delays in data verification, lengthy administrative procedures, discrepancies in population data, and suboptimal integration of healthcare service systems (Agung & Agung, 2025; Nasution et al., 2026; Praja et al., 2024; Susilo et al., 2025).

The advancement of information technology has driven various digital-based healthcare service innovations, including the use of health information systems and health administration service applications (Mikraj & Fauzi, 2024; Utami et al., 2025; Ernawati et al., 2022). The implementation of digital systems is believed to be capable of improving healthcare service effectiveness through the acceleration of administrative processes, integration of service data, and increased work efficiency among healthcare workers (Chendra & Putra, 2025). Research conducted by Fauziah et al. (2026) explains that digital transformation in healthcare services is capable of improving the efficiency of healthcare service systems and accelerating patient administrative services. Furthermore, Nurhayati and Michael (2024) state that the implementation of digital technology in healthcare services has a positive impact on service quality and patient satisfaction.

Numerous studies on the implementation of digital health and health information systems have been conducted; however, research specifically addressing the effectiveness of digital system implementation in BPJS Health PBPU Pemda administrative services remains limited (Suhermawan & Oktariyanda, 2025). Most previous studies have only focused on hospital information systems in general, telehealth, or electronic-based public service innovations (Kurniawan & Rojabi, 2026). Therefore, a comprehensive review through a Systematic Literature Review (SLR) approach is needed to analyze the effectiveness of digital system implementation in the registration process of Regional Government PBPU BPJS Health participants.

A Systematic Literature Review was employed to identify, evaluate, and synthesize relevant prior research findings related to the implementation of digital systems in health administration services. Through this review, it is expected that a comprehensive understanding can be obtained regarding the benefits, effectiveness, implementation challenges, and opportunities for the development of digital systems in BPJS Health administrative services.

Methods

Research Design

This study employed the Systematic Literature Review (SLR) method. The SLR method is a research approach conducted in a systematic, structured, and comprehensive manner to identify, evaluate, and synthesize prior research findings relevant to the research topic (Qudratuddarsi et al., 2024). This approach was used to obtain a scientific overview of the effectiveness of digital system implementation in health administration services, particularly in the registration process of Regional Government PBPU BPJS Health participants.

The SLR method was selected because it is capable of providing more objective scientific evidence based on the synthesis of various national and international published studies. Furthermore, this approach was also employed to identify research gaps that still need to be addressed in future studies.

Literature Search Strategy

The article search process was conducted electronically through several scientific databases, namely Google Scholar, PubMed, ScienceDirect, and Garuda. The article search was carried out from January to February 2026 using a combination of keywords such as "digital health," "health information system," "BPJS Kesehatan," "Jaminan Kesehatan Nasional," "hospital information system," "e-health," "digital public health service," and "Universal Health Coverage."

The articles searched were national and international articles published within the period of 2021–2026 to ensure that the data and information obtained were more current and relevant to the current development of healthcare service digitalization.

Inclusion and Exclusion Criteria

The inclusion criteria in this study comprised national and international scientific articles published between 2021 and 2026, available in full-text format, discussing the implementation of digital systems or health information systems, and having relevance to health administration services, BPJS Health, or digital healthcare services.

The exclusion criteria, meanwhile, included articles that were not relevant to the research focus, duplicate articles, articles not available in full-text format, and articles consisting solely of opinions or editorials without clear research findings.

Article Selection

The article selection process was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) stages. In the initial stage, articles were identified from all databases used. Subsequently, articles were screened based on their titles and abstracts in accordance with the research focus. Articles meeting the inclusion criteria were then subjected to an in-depth review to obtain information related to research objectives, research methods, research findings, and research conclusions.

Based on the selection process, a number of articles were identified as suitable and relevant for analysis in this study.

Data Extraction

Data from articles that met the inclusion criteria were then extracted using a literature synthesis table. The information extracted included the researcher's name, year of study, research title, research method, research findings, and the relevance of the study to the topic of digital system implementation in health administration services.

Data Analysis

Data analysis was conducted using a descriptive narrative analysis method. Data obtained from various articles were then compared, categorized, and synthesized based on common research themes. The analysis was performed to identify the effectiveness of digital system implementation in health administration services, the benefits of health information system utilization, the challenges of healthcare service digitalization implementation, and the opportunities for digital system development in BPJS Health services.

The results of the literature synthesis were subsequently presented in the form of scientific narrative and a prior research table to facilitate the interpretation of research findings and to comprehensively support the research discussion.

Result and Discussion

Study Selection

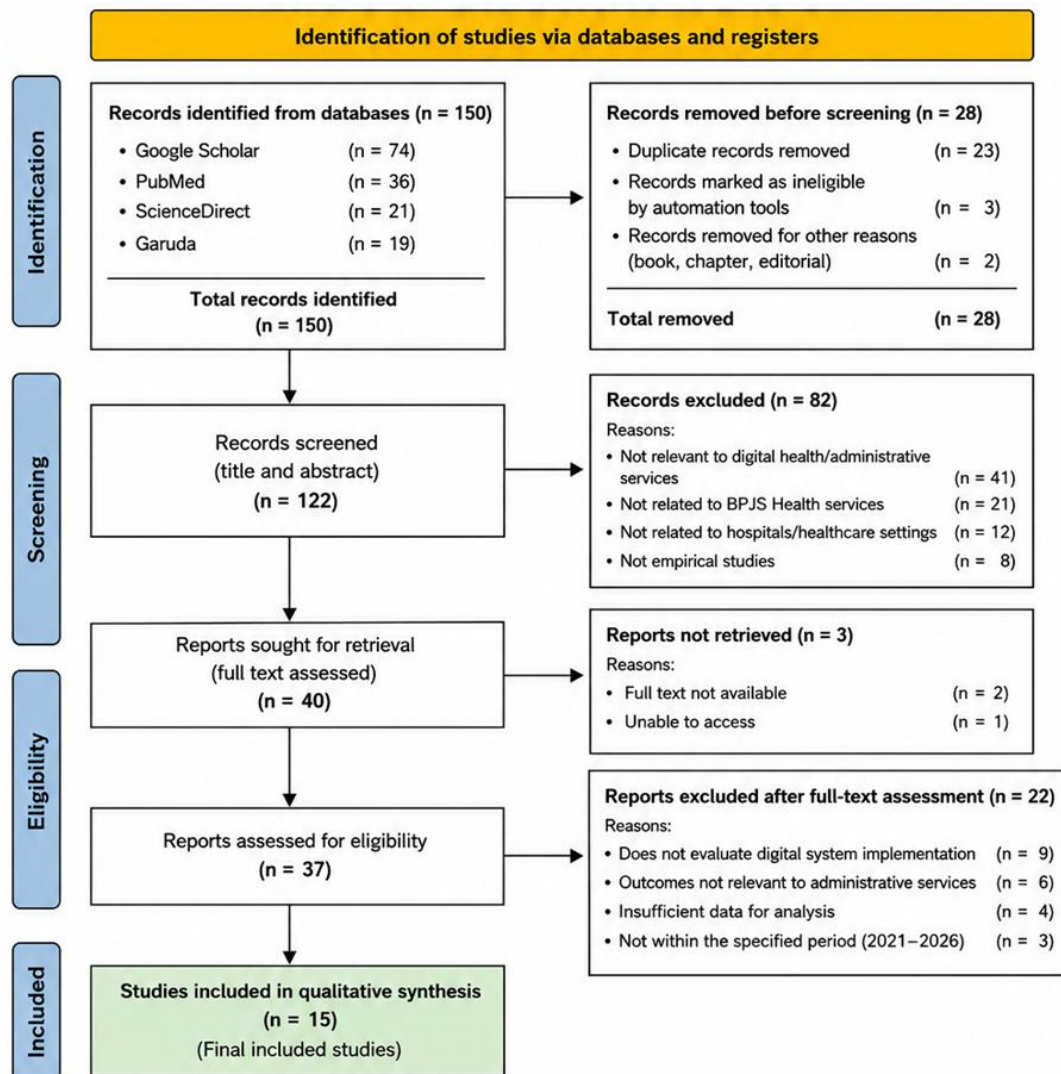


Figure 1. PRISMA Flow Diagram

A systematic literature search was conducted to identify studies examining the implementation of digital systems in healthcare administration services relevant to the SEJAK GO application. The search followed the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) framework and was performed across four electronic databases, namely Google Scholar, PubMed, ScienceDirect, and Garuda, using predefined keywords related to digital health, BPJS Health, Hospital Management Information Systems (SIMRS), Mobile JKN, digital public health services, and Universal Health Coverage. Retrieved records were screened based on the predefined inclusion and exclusion criteria. The screening process involved the removal of duplicate publications, evaluation of titles and abstracts, and full text assessment to ensure methodological quality and relevance to the research objectives. The complete study selection procedure should be presented in a PRISMA flow diagram to enhance the transparency and reproducibility of the review process.

Following the systematic screening and eligibility assessment, fifteen studies met the inclusion criteria and were included in the final qualitative synthesis. These studies comprised cross sectional studies, literature reviews, case studies, and investigations of digital health information systems that evaluated various digital health innovations, including Mobile JKN, SIMRS, online patient registration systems, and health information interoperability. Although

none of the selected studies specifically investigated the SEJAK GO application, all provided indirect empirical evidence regarding the effectiveness of digital health technologies in improving BPJS Health administrative services. Therefore, these studies formed a comprehensive evidence base for synthesizing the potential contribution of the SEJAK GO application in enhancing the efficiency, integration, and quality of Regional Government PBPU registration services in hospitals.

Characteristics of Included Studies

A total of fifteen studies met the eligibility criteria and were included in the qualitative synthesis. The selected publications were published between 2021 and 2026, reflecting recent developments in digital transformation within healthcare administration and BPJS Health services. The reviewed studies consisted of various research designs, including cross sectional studies, case studies, literature reviews, and investigations of health information systems. This methodological diversity enabled a comprehensive understanding of digital health implementation from multiple perspectives, including user acceptance, service effectiveness, system interoperability, administrative efficiency, and healthcare service quality.

The included studies primarily investigated the implementation of Mobile JKN, Hospital Management Information Systems (SIMRS), online patient registration systems, and digital health information interoperability. Although none of the selected studies directly evaluated the SEJAK GO application, they examined digital platforms with comparable administrative functions, particularly those supporting BPJS Health participant registration, patient data verification, service integration, and digital public healthcare delivery. Most studies consistently reported positive outcomes associated with digital system implementation, including improved registration efficiency, reduced waiting time, enhanced data integration, increased administrative productivity, and higher patient satisfaction. However, several studies also identified implementation barriers, such as limited technological infrastructure, unstable internet connectivity, inadequate digital literacy, and incomplete interoperability among healthcare information systems. These characteristics indicate that the reviewed literature provides a robust evidence base for synthesizing the potential effectiveness of the SEJAK GO application in supporting Regional Government PBPU registration services within hospital settings.

Table 1. Characteristics of Studies Included in the Systematic Literature Review

No.	Author (Year)	Study Design	Population / Setting	Digital System / Intervention	Main Findings	Relevance to SEJAK-GO
1	Pratama & Suhartanto (2025)	Cross sectional	BPJS Health participants in Indonesia	Mobile JKN	Intention to use Mobile JKN significantly supports digital patient registration and appointment services.	Demonstrates user acceptance of digital registration systems comparable to SEJAK GO.
2	Nabilah et al. (2024)	Literature Review	Healthcare services in Indonesia	Mobile JKN	Mobile JKN contributes to improving healthcare service quality through digital administration.	Supports the role of digital health applications in administrative service improvement.
3	Gunawan & Az-Zahra (2024)	Quantitative	Outpatient services at AMC Hospital	Mobile JKN	Online registration accelerates outpatient	Indicates the effectiveness of digital registration

					registration and improves service efficiency.	processes similar to SEJAK GO.
4	Daniati et al. (2024)	Quantitative	Hospital outpatient registration unit	Mobile JKN	Mobile JKN improves BPJS administrative services and patient registration performance.	Supports digital innovation for hospital registration services.
5	Ratri & Harjayanti (2025)	Case Study	Hospital X	Mobile JKN	Implementation barriers include system integration, user adaptation, and technical constraints.	Identifies challenges relevant to SEJAK GO implementation.
6	Ma'rifatulloh & Setiatin (2026)	System Analysis	Welas Asih Regional Hospital	SIMRS and Mobile JKN interoperability	System interoperability improves data validation and accelerates administrative processes.	Demonstrates the importance of integrated health information systems.
7	Badriyana et al. (2026)	Quantitative	Dumai General Hospital	Mobile JKN	Low utilization is associated with digital literacy and perceived ease of use.	Highlights factors affecting successful implementation of digital systems.
8	Aprilia et al. (2026)	Descriptive Study	Indonesian healthcare system	Mobile JKN	Digital transformation strengthens healthcare administration and public services.	Supports the strategic role of digital innovation.
9	Andria et al. (2021)	Conference Study	Indonesian health insurance system	Digital mobile technology	Mobile technology improves accessibility and efficiency of health insurance administration.	Provides early evidence supporting digital BPJS services.
10	Angraini et al. (2025)	Community Education Study	JKN participants	Mobile JKN	Digital education increases application ownership and utilization.	Demonstrates the importance of user readiness.
11	Efendy et al. (2022)	Quantitative	BPJS participants at Madani Hospital	Mobile JKN	Application use significantly increases participant satisfaction.	Supports the relationship between digital services and patient satisfaction.

12	Ramdanis & Priyambodo (2025)	Quantitative	Public service sector	Mobile JKN	Organizational, technological, and social factors influence successful implementation.	Explains determinants of digital innovation adoption.
13	Saputra (2025)	Correlational Study	Kebomas Health Center	Mobile JKN	Better digital service quality is positively associated with patient satisfaction.	Indicates service quality benefits of digital registration systems.
14	Rahmawati & Rumpiati (2024)	Quantitative	Kauman Baru Health Center	Mobile JKN	Digital registration simplifies administrative procedures and improves patient experience.	Supports effectiveness of digital registration in primary healthcare.
15	Pratama & Setiatin (2026)	Quantitative	BPJS outpatient services	Mobile JKN	Mobile JKN significantly reduces waiting time during outpatient registration.	Provides evidence that digital registration improves operational efficiency.

Thematic Synthesis

Registration Efficiency

The qualitative synthesis demonstrated that improved registration efficiency emerged as the most consistently reported outcome across the reviewed studies. Most of the selected publications emphasized that the implementation of digital health applications significantly simplified administrative procedures by replacing manual registration with electronic systems capable of processing participant information more rapidly and accurately. For example, Gunawan and Az-Zahra (2024) reported that the implementation of Mobile JKN significantly accelerated outpatient registration services by reducing administrative processing time, while Daniati et al. (2024) found that digital registration systems improved the effectiveness of BPJS Health administrative services within hospital outpatient registration units. Similarly, Nabilah et al. (2024), through their literature review, concluded that Mobile JKN contributes to improving the quality of healthcare administration by simplifying participant registration procedures. These findings indicate that digital registration platforms enable patients to complete administrative requirements before arriving at healthcare facilities, thereby reducing repetitive administrative activities and improving overall workflow efficiency.

Several studies also reported that digital registration systems reduced the administrative burden experienced by hospital staff while improving the accuracy of participant verification. Pratama and Suhartanto (2025) demonstrated that participants showed a strong intention to adopt Mobile JKN because of its convenience in digital registration and appointment scheduling, reflecting the growing acceptance of electronic administrative services. Furthermore, Ma'rifatulloh and Setiatin (2026) highlighted that interoperability between Mobile JKN and Hospital Management Information Systems (SIMRS) facilitated real time data exchange, reduced redundant documentation, and strengthened administrative coordination through improved participant data validation. Complementing these findings, Andria et al. (2021) emphasized that mobile health technologies enhance the efficiency of health insurance

administration by supporting electronic registration and digital service accessibility. Although the reviewed studies evaluated different digital platforms rather than the SEJAK GO application itself, the consistent evidence indicates that integrated digital registration systems substantially improve administrative efficiency. Therefore, these findings provide strong indirect empirical evidence supporting the potential effectiveness of the SEJAK GO application in automating the registration process for Regional Government PBPU participants through integrated digital administration.

Waiting Time Reduction

Reduction of patient waiting time emerged as another dominant theme across the reviewed studies. The qualitative synthesis indicated that digital registration systems consistently shortened administrative processing time by enabling patients to complete registration procedures, submit personal information, and verify BPJS Health membership electronically before arriving at healthcare facilities. Gunawan and Az-Zahra (2024) reported that the implementation of Mobile JKN significantly accelerated outpatient registration services by reducing the time required for administrative processing. Similar findings were reported by Daniati et al. (2024), who demonstrated that Mobile JKN improved the efficiency of outpatient registration through electronic administrative services. Likewise, Pratama and Setiatin (2026) found that the Mobile JKN application effectively optimized waiting time for BPJS outpatient services, while Rahmawati and Rumpiati (2024) observed that digital registration simplified patient admission procedures and improved the overall registration experience. Collectively, these studies indicate that electronic registration systems substantially reduce service queues at hospital registration counters and allow healthcare personnel to allocate more time to clinical service delivery rather than routine administrative activities.

The reviewed literature further demonstrated that shorter waiting times were closely associated with improved service responsiveness and operational efficiency. Ma'rifatulloh and Setiatin (2026) reported that interoperability between Mobile JKN and Hospital Management Information Systems (SIMRS) accelerated participant verification and improved coordination among hospital administrative units, thereby contributing to smoother patient flow. However, several studies also emphasized that the effectiveness of waiting time reduction depends on supporting organizational and technological factors. Badriyana et al. (2026) identified limited digital literacy, low application utilization, and technological constraints as important barriers affecting the successful implementation of electronic registration systems. Similarly, Ratri and Harjayanti (2025) highlighted that technical integration challenges and user adaptation issues may reduce the effectiveness of digital registration services in hospital settings. Despite these implementation challenges, the collective evidence consistently demonstrates that integrated digital registration technologies improve service timeliness, enhance administrative efficiency, and support more responsive healthcare delivery. Although none of the reviewed studies directly evaluated the SEJAK GO application, the consistent findings from Mobile JKN and integrated hospital information systems provide strong indirect evidence that SEJAK GO has considerable potential to reduce waiting time and improve the efficiency of Regional Government PBPU registration services through automated and integrated digital administration.

Data Integration and Interoperability

Data integration and interoperability emerged as another prominent theme across the reviewed studies. The synthesis demonstrated that effective integration between digital health applications and Hospital Management Information Systems (SIMRS) plays a fundamental role in improving the quality and efficiency of BPJS Health administrative services. Ma'rifatulloh and Setiatin (2026) reported that interoperability between SIMRS and the Mobile JKN application significantly improved participant data synchronization and accelerated the

validation process during hospital registration. Similarly, Andria et al. (2021) emphasized that the adoption of digital mobile technologies in Indonesia's health insurance system enhanced information exchange between healthcare providers and BPJS Health, thereby supporting more efficient administrative services. Furthermore, Aprilia et al. (2026) highlighted that digital transformation through Mobile JKN strengthened healthcare service integration by facilitating electronic administrative processes and improving coordination among healthcare institutions. Collectively, these studies indicate that integrated digital platforms facilitate real time exchange of participant information, reduce manual verification procedures, and minimize inconsistencies in administrative records, ultimately improving the accuracy and completeness of health administration data.

The reviewed evidence further demonstrated that integrated information systems contribute to better coordination among administrative units, resulting in faster decision making and more efficient patient management. Ma'rifatulloh and Setiatin (2026) showed that interoperability between Mobile JKN and SIMRS reduced duplication of administrative records while enhancing communication among healthcare providers. However, several studies also identified persistent challenges associated with incomplete system integration and fragmented digital infrastructure. Badriyana et al. (2026) reported that low utilization of Mobile JKN was partly attributed to technological limitations and inadequate system readiness, whereas Ratri and Harjayanti (2025) identified integration constraints and user adaptation as important barriers affecting digital registration services in hospitals. Ramdanis and Priyambodo (2025) further emphasized that organizational readiness and technological support are critical determinants of successful Mobile JKN implementation. Although none of the reviewed studies directly evaluated the SEJAK GO application, the consistent evidence regarding the benefits of interoperability strongly supports the need for comprehensive system integration within SEJAK GO to ensure accurate participant verification, seamless information exchange, and effective coordination between hospitals, BPJS Health, and regional government authorities.

Administrative Work Efficiency

Another important finding identified through the thematic synthesis concerns the positive impact of digital health systems on administrative work efficiency. Across the reviewed studies, digital applications were consistently associated with a reduction in manual administrative activities, allowing healthcare personnel to perform routine administrative tasks more efficiently while minimizing documentation errors. Daniati et al. (2024) reported that Mobile JKN streamlined administrative procedures in outpatient registration units by replacing conventional paper based processes with electronic services. Similarly, Gunawan and Az-Zahra (2024) found that online registration systems accelerated administrative workflows and reduced repetitive manual tasks during BPJS patient registration. Nabilah et al. (2024) also concluded that digital healthcare applications improve the efficiency of health administration by simplifying participant registration procedures and reducing unnecessary administrative complexity. These findings indicate that electronic registration systems simplify participant verification, automate data recording processes, and reduce repetitive administrative procedures that traditionally required considerable time and human resources.

The reviewed studies further demonstrated that improved administrative efficiency contributes to broader organizational performance within healthcare facilities. Pratama and Suhartanto (2025) found that positive user acceptance of Mobile JKN encouraged wider utilization of digital administrative services, thereby supporting more efficient registration processes and appointment management. In addition, Andria et al. (2021) highlighted that mobile health technologies improved the efficiency of health insurance administration through digital service accessibility and electronic information management. Nevertheless, the synthesis revealed that improvements in administrative efficiency remain highly dependent on organizational

readiness, staff competency, continuous technical training, and adequate technological infrastructure. Badriyana et al. (2026) reported that limited digital literacy and low application utilization reduced the effectiveness of Mobile JKN implementation, while Ramdanis and Priyambodo (2025) emphasized that organizational support, technological readiness, and policy commitment are essential for sustaining digital public service innovations. Therefore, although digital registration systems have demonstrated considerable potential to improve hospital administrative performance, their long term effectiveness depends on continuous investment in human resources, system maintenance, and institutional commitment to digital transformation. These findings indicate that successful implementation of the SEJAK GO application requires not only technological innovation but also organizational preparedness to maximize administrative efficiency within Regional Government PBPU registration services.

Patient Satisfaction

Patient satisfaction was consistently identified as one of the major outcomes associated with the implementation of digital healthcare administration systems. The reviewed studies demonstrated that digital platforms, particularly Mobile JKN and integrated online registration systems, improved patients' experiences by simplifying administrative procedures, reducing unnecessary waiting time, and providing easier access to healthcare services. Efendy et al. (2022) reported that the use of the Mobile JKN application significantly increased BPJS participant satisfaction by improving the speed and convenience of administrative services. Similarly, Saputra (2025) found a significant positive relationship between the quality of Mobile JKN digital services and patient satisfaction, indicating that reliable electronic services contribute directly to users' perceptions of healthcare quality. Rahmawati and Rumpiati (2024) further demonstrated that digital registration systems simplified patient admission procedures and enhanced satisfaction by reducing administrative complexity during registration. In addition, Daniati et al. (2024) concluded that Mobile JKN improved the effectiveness of outpatient registration services, thereby creating a more organized and efficient patient experience. Collectively, these findings indicate that electronic registration systems enable patients to complete administrative requirements more conveniently while improving service responsiveness, transparency, and accessibility.

The synthesis also indicated that patient satisfaction was closely related to system usability and service reliability. Pratama and Suhartanto (2025) reported that users were more willing to adopt Mobile JKN when the application was perceived as easy to use and capable of facilitating registration and appointment scheduling. Likewise, Angraini et al. (2025) emphasized that increasing public awareness and ownership of the Mobile JKN application encouraged greater utilization of digital healthcare services, ultimately supporting better user experiences. Nevertheless, several studies also noted that technical problems, including unstable internet connectivity, application errors, and limited digital literacy, occasionally reduced user confidence in electronic healthcare administration (Badriyana et al., 2026). Despite these limitations, the collective evidence consistently suggests that digital transformation contributes to improving patient centered healthcare services. Although none of the reviewed studies specifically evaluated the SEJAK GO application, the findings provide strong indirect evidence that an integrated digital registration system has considerable potential to enhance patient satisfaction by delivering faster, simpler, and more reliable BPJS Health administrative services for Regional Government PBPU participants.

Implementation Challenges and Implications for SEJAK-GO

Although the reviewed literature consistently reported positive outcomes associated with digital health applications, several implementation challenges were identified across different healthcare settings. Badriyana et al. (2026) found that low utilization of the Mobile JKN application was influenced by limited digital literacy, technological constraints, and users'

perceptions regarding application usability. Similarly, Ratri and Harjayanti (2025) identified technical integration problems, user adaptation issues, and organizational barriers as major challenges affecting the effectiveness of digital registration systems in hospitals. Ma'rifatulloh and Setiatin (2026) further emphasized that incomplete interoperability between SIMRS and Mobile JKN may reduce the efficiency of participant verification and delay administrative processes. In addition, Ramdanis and Priyambodo (2025) concluded that organizational commitment, technological readiness, and policy support are critical determinants for the successful implementation of digital public service innovations. These findings demonstrate that inadequate technological infrastructure, unstable internet connectivity, fragmented health information systems, and insufficient digital competencies remain substantial barriers to achieving optimal digital healthcare administration.

The overall synthesis demonstrates that digital registration systems have considerable potential to improve the efficiency and quality of BPJS Health administrative services when supported by adequate technological and organizational capacity. Across the reviewed studies, Mobile JKN, SIMRS, and other digital healthcare applications consistently improved registration efficiency, strengthened data integration, reduced waiting time, simplified administrative procedures, and enhanced patient satisfaction (Daniati et al., 2024; Gunawan & Az-Zahra, 2024; Efendy et al., 2022; Ma'rifatulloh & Setiatin, 2026). Although none of the included studies directly evaluated the SEJAK GO application, the accumulated evidence provides strong indirect empirical support for its potential implementation within Regional Government PBPU registration services. The findings suggest that successful implementation of SEJAK GO will depend on comprehensive system interoperability, reliable digital infrastructure, continuous human resource development, and effective collaboration among hospitals, BPJS Health, and regional government institutions. Therefore, the reviewed literature provides an evidence based foundation supporting SEJAK GO as a promising digital innovation for strengthening the effectiveness, efficiency, and integration of BPJS Health administrative services, while simultaneously highlighting the institutional and technological requirements necessary for its sustainable implementation.

Conclusion

This systematic literature review synthesized evidence from fifteen studies examining digital healthcare administration systems, including Mobile JKN, online registration platforms, and Hospital Management Information Systems (SIMRS), to explore their implications for the implementation of the SEJAK GO application. The review demonstrates that digital registration systems consistently improve administrative efficiency by accelerating participant registration, reducing waiting times, strengthening data integration and interoperability, simplifying administrative workflows, and enhancing patient satisfaction. These findings indicate that digital transformation plays an important role in improving the effectiveness and quality of BPJS Health administrative services in hospital settings.

Although none of the reviewed studies directly evaluated the SEJAK GO application, the synthesized evidence provides strong indirect empirical support for its potential implementation in the registration of Regional Government PBPU participants. The review contributes to the existing literature by integrating evidence from multiple digital health initiatives to establish an evidence based conceptual foundation for automated BPJS Health registration systems. From a practical perspective, the findings suggest that successful implementation of SEJAK GO will require robust technological infrastructure, comprehensive interoperability between healthcare information systems, continuous human resource capacity development, and strong institutional collaboration among hospitals, BPJS Health, and regional governments. This review is limited by the absence of empirical studies specifically investigating SEJAK GO, requiring conclusions to be drawn from conceptually related digital health applications. Future research should evaluate the implementation of SEJAK GO using

primary empirical data across diverse healthcare settings to validate its effectiveness, identify implementation barriers, and assess its long term impact on healthcare administrative performance.

References

- Agung, A., & Agung, P. (2025). *Implementasi Kebijakan Program Badan Penyelenggara Jaminan Sosial (BPJS) Kesehatan Pada Pasien Rawat Jalan di Rumah Sakit Umum Daerah (RSUD) Wangaya Kota Denpasar*. 2(3), 1–14.
- Aisah, S. A. S. (2022). The Relationship Between Perception, Income, and Mileage Towards the Place of Payment with Compliance in Paying Contributions for the Non-Wage Recipient Participant Segment (NWRP) at Hospital X Bogor Regency in 2021. *Indonesian Scholar Journal of Medical and Health Science*, 1(08), 268-276.
- Alshararl, F. A., Alsharari, L. H., Alsharari, A. S., Alsharari, M. F. H., Alshararl, M. S. M., Alsudays, A. S., ... & Alsharari, S. F. (2025). Integrating Health Information Systems and Administrative Processes to Improve Patient Care Efficiency: A Comprehensive Review. *Vascular and Endovascular Review*, 8(5s), 112-120.
- Andria, F., Deranti, M., Sari, L. M., Mihradi, R. M., & Bon, A. T. (2021, September). Indonesian health insurance: Application of digital mobile technology. In *Proceedings of the Second Asia Pacific International Conference on Industrial Engineering and Operations Management Surakarta*.
- Angraini, W., Yanuarti, R., Samidah, I., Febriawati, H., & Agustinawati, Z. (2025). Education Through Ownership of the JKN (National Health Insurance of Indonesia) Mobile Application. *Jurnal Kesehatan Prima*, 19(2), 106-118. <https://doi.org/10.32807/jkp.v19i2.1807>
- Aprilia, D., Juliah, S. A., & Vidiati, C. (2026, March). The Role of the JKN Mobile Application as a Form of Digital Transformation of Healthcare Services in the Modern Era. In *Proceedings International Conference of Bunga Bangsa* (Vol. 4, No. 1, pp. 189-197).
- Badriyana, S., Leonita, E., Kiswanto, K., Renaldi, R., & Jepisah, D. (2026). Analysis Of The Low Utilization Of Mobile Jkn Adoption For Patient Registration At Dumai General Hospital In 2025. *Hearty*, 14(2), 437-451.
- Chendra, R., & Putra, R. (2025). *Transformation of Health Services at Siti Fatimah Hospital South Sumatra to Improve Excellent Service*. 4(2), 77–85. <https://doi.org/10.31289/jiaap.v4i2.6439>
- Daniati, S. E., Octaria, H., & Astika, F. (2024). Efektifitas Aplikasi Mobile Jaminan Kesehatan Nasional (Jkn) Dalam Meningkatkan Pelayanan Bpjs Kesehatan Di Tempat Pendaftaran Rumah Sakit X Tahun 2024. *Jhmhs: Journal of Hospital Management and Health Science*, 5(2), 1-6.
- Darrudi, A., Khoonsari, M. H. K., & Tajvar, M. (2022). Challenges to achieving universal health coverage throughout the world: a systematic review. *Journal of preventive medicine and public health*, 55(2), 125. <https://doi.org/10.3961/jpmph.21.542>
- Debie, A., Nigusie, A., Gedle, D., Khatri, R. B., & Assefa, Y. (2024). Building a resilient health system for universal health coverage and health security: a systematic review. *Global Health Research and Policy*, 9(1), 2. <https://doi.org/10.1186/s41256-023-00340-z>
- Efendy, I., Nyorong, M., Amirah, A., & Sari, F. (2022). National health insurance (JKN) mobile application use towards satisfaction of participants of the health social security implementing agency (BPJS) in Madani hospital in Medan city. *Journal of Medical*

- Erku, D., Khatri, R., Endalamaw, A., Wolka, E., Nigatu, F., Zewdie, A., & Assefa, Y. (2023). Digital health interventions to improve access to and quality of primary health care services: a scoping review. *International journal of environmental research and public health*, 20(19), 6854. <https://doi.org/10.3390/ijerph20196854>
- Ernawati, K., Nugroho, B. S., Suryana, C., Riyanto, A., & Fatmawati, E. (2022). The advantages of digital applications in public health services on automation era. *International journal of health sciences*, 6(1), 174-186. <https://doi.org/10.53730/ijhs.v6n1.3684>
- Fauzi, M. R., Saimi, S., & Fathoni, F. (2024). Tantangan dan solusi administrasi kesehatan di era digital (tinjauan literature review atas implementasi teknologi). *AL-MIKRAJ Jurnal Studi Islam Dan Humaniora (E-ISSN 2745-4584)*, 5(01), 1093-1103. <https://doi.org/10.37680/almikraj.v5i01.6219>
- Fauziah, Y. A., Susanto, D. A., & Utama, Y. P. (2026). Perlindungan Hukum Data Kesehatan Pasien di Era Digital: Legal Protection of Patient's Health Data in The Digital Era. *Jurnal Hukum dan Etika Kesehatan*, 6(1), 1-19. <https://doi.org/10.30649/jhek.v6i1.270>
- Gunawan, E., & Az-zahra, A. (2024). Effectiveness of Online Registration Services Through the JKN Mobile Application for BPJS Outpatients at AMC Hospital. *International Journal Prima Husada Health (IJPHH)*, 1(3), 124-133.
- Jaca, A., Malinga, T., Iwu-Jaja, C. J., Nnaji, C. A., Okeibunor, J. C., Kamuya, D., & Wiysonge, C. S. (2022). Strengthening the health system as a strategy to achieving a universal health coverage in underprivileged communities in Africa: a scoping review. *International journal of environmental research and public health*, 19(1), 587. <https://doi.org/10.3390/ijerph19010587>
- Kurniawan, D., & Rojabi, M. A. (2026). *Mobile JKN: Revolusi Aplikasi Jaminan Sosial Nasional Masa Kini*. Afdan Rojabi Publisher.
- Ma'rifatulloh, R., & Setiatin, S. (2026). Optimization Of Data Interoperability Between Simrs And The JKN Mobile Application As An Effort To Digital Transform Health Services At Welas Asih Regional Hospital. *Jurnal Kesmas Prima Indonesia*, 10(1), 13-19. <https://doi.org/10.34012/jkpi.v10i1.7786>
- Mohammadzadeh, Z., Saeidnia, H. R., Lotfata, A., Hassanzadeh, M., & Ghiasi, N. (2023). Smart city healthcare delivery innovations: a systematic review of essential technologies and indicators for developing nations. *BMC health services research*, 23(1), 1180. <https://doi.org/10.1186/s12913-023-10200-8>
- Nabilah, H., Permatasari, P., El-Tsana, A. V. A., Abdillah, R. P. A., & Rohadatul'Aisy, A. (2024). The Implementation of The JKN Mobile Application as an Effort to Improve the Quality of Health Services in Indonesia: Literature Review. *Jurnal Kesehatan*, 15(3), 45-55.
- Nasution, S. L. R., Zulri, M. O., Sinaga, M. R. B., & Girsang, E. (2026). Challenges And Solutions of Healthcare Workers In Providing Social Security Administering Body (BPJS) Patient Services In The Digital Era at Royal Prima Marelan Hospital. *Contagion: Scientific Periodical Journal of Public Health and Coastal Health*, 8(1), 523-537. <http://dx.doi.org/10.30829/contagion.v8i1.26647>
- Nurhayati, T., & Michael, A. (2024). Dampak Electronic Medical Record pada Aspek Waktu dan Kepuasan di Layanan Kesehatan: Tinjauan Sistematis. *BINA: JURNAL*

- Praja, N. I., Ferianasari, I. W., & Jaqualina, C. (2024). The effectiveness of Health BPJS claim discrepancies against health service standards in Indonesia. *FIRM Journal of Management Studies*, 9(1), 164-177. <https://doi.org/10.33021/firm.v9i1.5804>
- Pratama, S. B., & Setiatin, S. (2026). Effectiveness Of The JKN Mobile Application In Optimizing Waiting Time For BPJS Outpatient Patients. *Jurnal Kesmas Prima Indonesia*, 10(1), 28-32. <https://doi.org/10.34012/jkpi.v10i1.7776>
- Pratama, Z. S., & Suhartanto, D. (2025). Encouraging The Intention to Use Mobile JKN Application for Patient Registration And Appointment in Indonesia: A Cross-Sectional Study. *JPHRECODE*, 8(2), 97-108. <https://doi.org/10.20473/jphrecode.v8i2.58574>
- Qudratuddarsi, H., Meivawati, E., & Saputra, R. (2024). Pelatihan penelitian metode kuantitatif dan systematic literature review bagi dosen dan mahasiswa. *Beru'-beru': Jurnal Pengabdian kepada Masyarakat*, 3(1), 22-32. <https://doi.org/10.31605/jipm.v3i1.4437>
- Rahmawati, A. N., & Rumpiati, R. (2024). The Use of JKN Mobile Application in Improving Patient Satisfaction in Registration Services at Kauman Baru Health Center, Ponorogo Regency. *Jurnal Rekam Medis dan Informasi Kesehatan Indonesia*, 4(1), 55-61. <https://doi.org/10.62951/jurmiki.v4i1.91>
- Ramdanis, A., & Priyambodo, V. K. (2025). Driving public service innovation: Factors influencing the implementation of Mobile JKN application in Indonesia. *International Journal of Business and Applied Economics*, 4(1), 493-512. <https://doi.org/10.55927/ijbae.v4i1.13625>
- Ratri, D. R., & Harjayanti, N. D. (2025). Challenges Of Jkn Mobile Application Utilization In The Bpjs Patient Registration Process At X Hospital: A Case Study In X Hospital. *Journal of Community Health and Preventive Medicine*, 5(Supplement 1), 203-212. <https://doi.org/10.21776/ub.jochapm.2025.005.02>
- Rizqi, C., Saputro, A., & Fathiyah, F. (2022). *Universal Health Coverage : Internalisasi Norma di Indonesia*. 2(2), 204–216.
- Saputra, R. D. A. (2025). The Correlation between the quality of digital services in the Mobile JKN application and BPJS patient satisfaction at the Kebomas Health Center indicates a significant correlation. *Innovation Research Journal*, 6(1), 135-142. <https://doi.org/10.30587/innovation.v6i1.9370>
- Saputri, N. S., & Murniati, S. (2023). Kajian Dampak Bantuan Iuran Program Jaminan Kesehatan Terhadap Masyarakat Miskin dan Tidak Mampu. *Kementerian PPN/Bappenas. Jakarta: The SMERU Research Institute*.
- Sudrajat, A. T. H. (2022). Program universal health coverage (UHC) di Indonesia. *Jurnal Endurance: Kajian Ilmiah Problema Kesehatan*, 7(2), 462-473. <https://doi.org/10.22216/jen.v7i2.1363>
- Suhermawan, D. E., & Oktariyanda, T. A. (2025). Efektivitas e-health dalam peningkatan layanan publik di Puskesmas Sawahan Kota Surabaya. *Socius: Jurnal Penelitian Ilmu-Ilmu Sosial*, 2(12). <https://doi.org/10.5281/zenodo.15614949>
- Susilo, D., Lila, W. L. P., Sukmayeti, E., Asante, A., Jan, S., Thabrany, H., ... & Liverani, M. (2025). Can Indonesia achieve universal health coverage? Organisational and financing challenges in implementing the national health insurance system. *SSM-Health Systems*, 100138. <https://doi.org/10.1016/j.ssmhs.2025.100138>

- Utami, E. W., Shaleh, C., Setyowati, E., Hermawan, H., Amir, H. T., Irtanto, I., & Prasetyo, A. (2025). Digitization of hospital administration and public service reform: integration of technology and humanistic values. *Frontiers in Public Health*, 13, 1743085. <https://doi.org/10.3389/fpubh.2025.1743085>
- Wulandari, M., Novriyanti, T., Purwadhi, P., & Widjaja, Y. R. (2025). Implementasi strategi transformasi digital dalam meningkatkan kualitas pelayanan di rumah sakit: Studi kualitatif. *Innovative: Journal Of Social Science Research*, 5(1), 1415-1427. <https://doi.org/10.31004/innovative.v5i1.17847>
- Zaenal, D., & Wahyuningsih, D. (2025). Implementasi Undang-Undang Nomor 24 Tahun 2011 Tentang Badan Penyelenggara Jaminan Sosial (Bpjs) Kesehatan (Studi Kasus RSUD Kota Jakarta Utara Tahun 2023). *Perspektif: Kajian Pemerintahan & Kesejahteraan Sosial*, 6(6).