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The Effect of System Success on The Implementation of Patient Online Registration Outpatient at Manisa Health Center Kabupaten Sidenreng Rappang

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ABSTRACT

Introduction: The development of information technology has encouraged health facilities such as health centers to adopt an online registration system to improve service efficiency. This study aims to analyze the influence of the success of the system on the implementation of online registration of outpatients at the Manisa Health Center, Sidenreng Rappang Regency. **Methods:** This study used a quantitative method with *a cross-sectional design,* involving 87 respondents who were selected through a simple random sampling technique from a total of 687 service users. The data collection instrument was in the form of a questionnaire compiled based on the DeLone and McLean models for system success variables (system quality, information, and services), and Patrick L. Seddon's model for implementation variables (system usage, user satisfaction, and operational effectiveness). Data analysis was carried out by simple linear regression test. **Results:** The study showed that the success of the system had a positive and significant effect on the implementation of online registration with a significance value of p = 0.000 (< 0.05) and a calculated t value (9,614) greater than the t table (1,988). Most respondents assessed that the quality of the system and information was relatively good, but the quality of service still needed to be improved. **Conclusion:** This study shows that the success of the system plays an important role in encouraging the implementation of the online registration system, so improvements in the quality of services and digital education for the community need to be prioritized to support the optimal use of the system.

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INTRODUCTION

Digital transformation in the health sector is an important step in improving the efficiency and accessibility of public services. The implementation of information systems in healthcare facilities, such as the online registration system, is designed to simplify the

administrative process, reduce wait times, and improve the patient experience This innovation not only modernizes services, but is also part of the government's efforts to integrate primary health services with the national health information system (Rismawan and Renaningtyas, 2024).

The Ministry of Health of the Republic of Indonesia through Permenkes No. 46 of 2017 encourages all health facilities, including health centers, to develop and utilize information technology. However, based on data from the Ministry of Health, around 14.91% of health centers have not been integrated with the national digital system and 7.18% do not have an adequate internet connection. This shows that the adoption of information technology in health services still faces structural and cultural constraints, especially in rural areas (Ministry of Health of the Republic of Indonesia, 2017).

In the context of information systems, the success of a system is not only measured by the existence of the software, but by the extent to which it is used effectively by the user. According to DeLone and McLean (1992), in Astuti et al., 2020) There are three main dimensions to measure system success, namely system quality, information quality, and service quality. These three dimensions influence each other in creating a system that is functional and accepted by users. The quality of the system includes aspects of ease of use, speed, and reliability; information quality refers to the accuracy, relevance, and completeness of the data; while the quality of service includes technical assistance and support from the system provider.

Patrick L. Seddon expands on the model by asserting that the success of information systems can affect the level of implementation through its influence on system usage and user satisfaction. Within this framework, the implementation of online registration can be understood as the level of adoption and real use of the system by patients and officers, which is a direct consequence of the perception of the quality of the system, information and services. Thus, implementation is not an end benefit but a concrete form of the success of the information system (Ikhyana et al, 2023).

At the Manisa Health Center, Sidenreng Rappang Regency, the online registration system has been available and accessible to the public since 2023. However, data shows that the utilization rate is still low. Based on enrollment data over a certain period, out of a total of 2,320 outpatients, only 687 patients (29.6%) used the online registration system, while 1,633 patients (70.4%) still chose to register manually. This inequality shows a significant gap in the adoption of digital systems. Problems identified in the field include difficulty accessing applications, lack of digital literacy among patients, and lack of technical support from registration officers. These findings are in line with previous research that shows that information system failures are often caused by system quality factors and low user understanding.

Several previous studies have examined the effectiveness of online registration systems. (Wulandari et al, 2023), stating that low information quality will reduce user trust in the system. In addition, (Afdoli and Malau,2019), emphasizing that without adequate service support, the use of information systems will remain low even if the infrastructure is available. However, these studies are still limited to the general context and have not specifically examined the relationship between the success of the system and the implementation of online registration at the Puskesmas level, especially in areas with socio-cultural characteristics such as Sidenreng Rappang Regency.

Therefore, this research is important to fill the gap in previous studies that are still limited in comprehensively explaining the success factors of information systems to the level of implementation, especially in primary health care facilities such as health centers. Previous studies have generally focused on large hospitals in urban areas, without

examining specifically the context of using online registration systems in health centers that have limited infrastructure and resources.

Findings (Aisyah et al, 2024), showing that the level of maturity of information and communication technology (ICT) in Puskesmas is still at a low to medium level, with a national average score of 2.74 (on a scale of 1–5). This value includes scores for HR (2.71), systems (2.83), hardware (2.59), and infrastructure (2.84), indicating real challenges in digital readiness in first-tier healthcare facilities. This research was conducted in nine provinces and reflects conditions that are quite representative for health centers in various regions of Indonesia. This indicates the need for a more in-depth study of the factors that affect the success and implementation of digital systems in health centers.

The purpose of this study is to analyze the influence of the success of the system on the implementation of online registration of outpatients at the Manisa Health Center, Sidenreng Rappang Regency.

LITERATURE REVIEW

This research combines two complementary conceptual models in explaining the success of the implementation of information systems, especially the online registration system in first-level health facilities. The model of information system success developed by DeLone and McLean (1992, in Astuti et al, 2020) It is used to measure the variables of system success through three main indicators: system quality, information quality, and service quality. Meanwhile, the model from Seddon (1997 in Rohman et al, 2022) Explain how the perception of the success of the system can have a direct impact on the level of implementation through the aspect of use *(system use)* and user satisfaction *(user satisfaction).*

The three indicators of the DeLone and McLean models include technical aspects and user perceptions: system quality emphasizes ease of use, reliability, and stability of the system; the quality of information including the accuracy, completeness, and relevance of the data displayed in the system; while the quality of service includes technical support and responsiveness from the service provider. In the context of the Manisa Health Center which has challenges in patient digital literacy and technical limitations of officers, the application of this model needs to be tested contextually. This means that, although the theoretical framework is general, there have not been many studies that test the effectiveness of this dimension in rural contexts with certain infrastructural and socio-cultural limitations (Eye 2017).

The Seddon model adds a critical dimension by explaining that technical success is not necessarily directly proportional to the implementation of the system, if it is not accompanied by user acceptance. The implementation of the online registration system in this case is defined as the extent to which the patient actually uses the system to register, and feels satisfied during the process. This concept is important for bridging the gap between the availability of systems and the realities of their use in the field (Chotimah 2022).

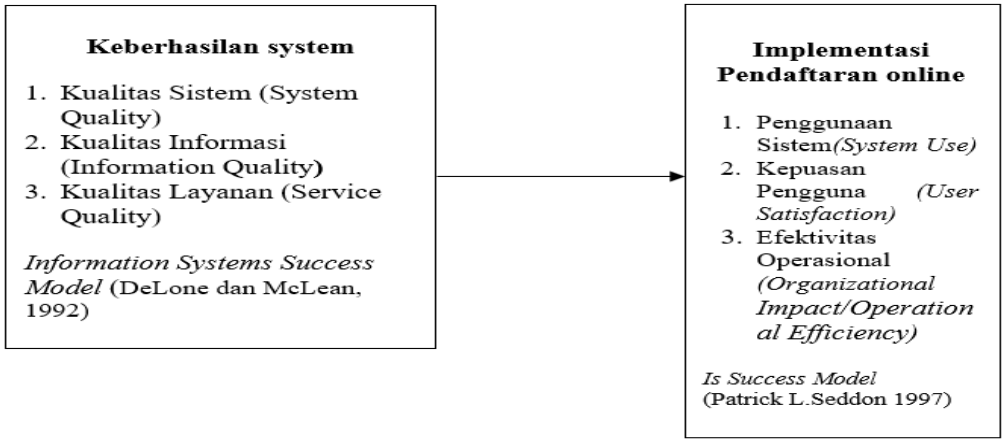
Several previous studies have confirmed the relationship between these variables. For example, (Princess 2024) reveals that a system that is not user-friendly can lower the patient's intention to use the system, even if it is available. (Raharna (2023) mentioning that the lack of technical support negatively impacts user satisfaction. In research (Faizah, 2021) highlighting the low quality of information as a trigger for declining trust in the digital health system. Meanwhile, according to Iim Al Imron & Sri Rejeki (2024) emphasized the importance of the role of health workers in accompanying patients, especially in areas with low levels of digital literacy. However, most of these studies did not explicitly examine the direct relationship between the perception of the success of the system and the level of

implementation of the online registration system in health centers, especially those located in rural areas such as Manisa.

By integrating the two models, this study builds a framework of thinking that the quality of systems, information, and services shapes perceptions of the success of information systems, which ultimately contributes to the level of system implementation by users. In this framework, implementation is not a passive impact of the presence of technology, but rather the result of users' perception and experience of the system they access.

This approach offers a deeper understanding of the dynamics of the use of information technology in basic health services and encourages the birth of improvement strategies based on the real needs of local communities. Findings Rifial et al (2024) supports this framework, by showing that perceptions of the quality of systems, information, and services significantly affect system usage, user satisfaction, and perceived benefits from health information systems. The research confirms that the successful implementation of digital systems in healthcare depends largely on the extent to which users feel the system is of quality and relevant to their needs.

Figure 2. Theoretical Framework: Integration of DeLone & McLean (1992) and Seddon (1997) Models



Source: Adapted from DeLone & McLean (1992, in Astuti et al., 2020) and Seddon (1997, in Rohman et al., 2022)

METHOD

This type of research is quantitative with a cross-sectional approach, the population determination is based on outpatient data that registered during the period September to November 2024 with a total of 687 patients. This research instrument is in the form of a questionnaire with a five-point Likert scale which is compiled based on two main variables. System Success Variables are measured through three dimensions, namely system quality, information quality, and service quality. Examples of items include "The online registration system is easy to use" and "The clerk is quick to assist in case of problems." Meanwhile, the Online Enrollment Implementation variable includes the dimensions of system usage, user satisfaction, and operational effectiveness, with examples of items such as "I use online registration frequently" and "The system helps speed up the registration process." The research was carried out from March to April 2025 at the Manisa Health Center, Sidenreng Rappang Regency.

The number of samples was determined using the Slovin formula with a standard error rate of 10%,

$$n = N / (1 + Ne^2)\ n = 687 / (1 + 687 \times 0.10^2)\ n = 687 / (1 + 6.87)\ n = 687 / 7.87\ n \approx 87.07$$

The number of samples used was 87 respondents. Furthermore, data collection was carried out through the distribution of questionnaires to respondents, Examples of questions on the quality dimension of the system include "The online registration system is easy to use and rarely encounters interruptions." In the information quality dimension, an example of an item is "The information provided by the system is clear and trustworthy." Meanwhile, in the dimension of service quality, one of the statements is "Officers are quick to help when there are problems in online registration."

The sampling technique used is simple random sampling, where the selection process is carried out manually based on the online registration queue data recorded in the system, then selected randomly so that every patient who registers online has the same chance to become a respondent. This method was chosen so that each member of the population has an equal opportunity to be represented in the research, so that the results obtained can objectively describe the actual conditions in the field.

The independent variable in this study is the success of the system, which is measured based on the DeLone and McLean (1992) model, including three main indicators: system quality, information quality, and service quality. Dependent variables are the implementation of online enrollment, which includes actual usage, ease of use, and intent to reuse the system.

The measurement of both variables was carried out through a closed questionnaire with a Likert scale of 1–5. The total number of statement items on the questionnaire is 33 items, which consist of a combination of questions to measure the variables of the success of the system and the implementation of online registration. The research instrument has been tested through validity and reliability tests. The validity test was carried out using the Pearson Product Moment correlation technique with a significance level of 5%.

The test results showed that all statement items had a *calculated r* value between 0.361 to 0.742, with *a table r* of 0.213, so it was declared valid. The reliability test was performed using Cronbach's Alpha, and it yielded a value of $\alpha = 0.749$, indicating that the instrument had good internal consistency.

Data collection was carried out by distributing questionnaires directly to respondents, with supervision by researchers to ensure the completeness and validity of the data. After being collected, the data is checked and processed using SPSS version 21. The analysis used was a simple linear regression to test the influence of system success on the implementation of online registration. The statistical test was carried out with a significance level of 5% ($\alpha = 0.05$), and the results were declared significant if the p value < 0.05.

RESULTS AND DISCUSSION

This research was carried out at the Manisa Health Center located in Baranti District, Sidenreng Rappang Regency, South Sulawesi Province. The health center is one of the first-level health service units under the auspices of the Sidenreng Rappang Regency Health Office. The working area of the Manisa Health Center includes three villages, namely Manisa Village, Panreng Village, and Benteng Village. These three regions have diverse socio-cultural backgrounds, with the majority of the population earning a livelihood in agriculture.

In this study, quantitative data collection was carried out using instruments in the form of questionnaires and interviews with respondents. The population of this study amounted to 687 patients, namely all users of the patient online registration system recorded at the Manisa Health Center during the period from September to November 2024 The number of respondents involved as samples in this study was 87 people.

Table 1. Characteristics of Respondents (N= 87)

Characteristics	Categories	Frequency (n)	Percentage (%)
Gender	Man	26	29.9
	Woman	61	70.1
Age	1–20 Years	6	6.9
	21–40 Years	47	54.0
	41–60 years	30	34.5
	61–80 Years	4	4.6
Address	Benteng	15	17.2
	Manisa	47	54.0
	Panreng	23	26.4
	Baranti	1	1.1
	Tangkoli	1	1.1
Education Level	No School	7	8.0
	Elementary/Equivalent	12	13.8
	Junior High School/Equivalent	11	12.6
	High School/Equivalent	30	34.5
	Diploma (D1/D2/D3)	7	8.0
	Bachelor (S1)	20	23.0
Work Status	Not Working	12	13.8
	Housewives	27	31.0
	PPPK	3	3.4
	Farmer	14	16.1
	Honor	1	1.1
	Self-Employed/Entrepreneur	10	11.5
	Mixed Sellers	1	1.1
	Health Workers	6	6.9
	Teachers	1	1.1
	Civil Servants	6	6.9
	Student/Student	5	5.7
	Laborer	1	1.1

The study of 87 outpatients at the Manisa Health Center revealed a clear profile of individuals utilizing its services, particularly the online registration system.

The patient population is overwhelmingly female, accounting for 70.1% of respondents. This reflects a well-documented trend where women are generally more proactive in managing family health and more responsive to utilizing system-based health services, while men's visits are often constrained by outside work schedules (Damayanti et al, 2023).

The dominant age group is the productive cohort, with 54.0% aged 21–40 years and 34.5% aged 41–60 years. This concentration of productive-age adults is significant because they typically possess the digital literacy and adaptability necessary to use technological innovations like online registration (Algifari et al,2024).

The utilization of the health center is highly dependent on geographical proximity. The majority of users (54.0%) reside in Manisa Village, where the center is located. This

distribution indicates that physical distance and ease of access are primary factors influencing whether patients register online and use the available services.

In terms of educational background, the largest segment had completed high school or equivalent (34.5%), followed by those with a bachelor's degree (23.0%). This high level of education supports the effective understanding and acceptance of technology-based systems.

Finally, the most common employment status among respondents was housewives (31.0%). This group, alongside the self-employed and unemployed, has greater time flexibility to attend appointments, often coming not just for themselves but also to accompany family members. This confirms that the most active users of the health center are those who have both the technical capacity (age/education) and the time (employment status) to utilize the services.

Table 2. Frequency Distribution of System Quality, Information Quality, and Service Quality Indicators (N= 87)

Indicator	Good Frequency (%)	Poor Frequency (%)
System Quality	46 (529)	41 (47.1)
Quality of Information	48 (55.2)	39 (44.8)
Quality of Service	45 (51.7)	42 (48.3)

Based on the results of the univariate analysis, respondents' perception of the success of the online registration system at the Manisa Health Center showed quite striking variations in three main indicators, namely system quality, information quality, and service quality.

In the system quality indicator, as many as 46 respondents (52.9%) assessed the system used to be in the good category, while 41 respondents (47.1%) assessed the system as inadequate. This proportion indicates that while more than half of respondents feel the system is quite effective, almost half still face technical hurdles or find that the system has not lived up to their expectations. This highlights the need to improve technical aspects such as access speed, ease of navigation, and system stability (Yuniarti et al, 2021).

In the information quality indicator, the majority of respondents, namely 48 people (55.2%) considered that the information provided through the online system was good enough, while 39 people (44.8%) thought otherwise. This difference in perception can be caused by several factors, including the appearance of an unintuitive interface, the use of technical terms that are poorly understood by ordinary users, or a lack of clarity of information regarding schedules and registration procedures (Hussein et al, 2022).

As for the service quality indicator, 45 respondents (51.7%) stated that they were satisfied with the services provided, while 42 respondents (48.3%) assessed that the service still needed to be improved. This nearly balanced comparison indicates that aspects of service—such as officer response, technical assistance, and process speed—are not entirely consistent and can lead to different experiences between users (Purwiningsih et al, 2023).

Overall, these findings illustrate that the online registration system at the Manisa Health Center is not fully optimal. Although the majority of respondents gave positive ratings, there is still a significant proportion of users who experience dissatisfaction. Therefore, comprehensive improvements are needed that include the development of a more user-friendly system, the provision of clear and easy-to-understand information, and the improvement of service quality to support the continuous implementation of the system in primary health facilities.

Table 3. The Effect of System Success on the Implementation of Online Registration of Outpatients

Variable	Coeficient (B)	t count	Sig. (p)
Constanta	1.808	0.307	0.760
System Success	0.817	9.614	0.000

The results of simple linear regression analysis showed that the success of the system had a positive and significant influence on the implementation of online registration of outpatients at the Manisa Health Center. The value of t-calculated = 9.614 > t table = 1.988 and p = 0.000 < 0.05, soH_a is accepted. This means that the higher the quality of the system, information, and services, the higher the implementation of online registration.

The system quality indicator was rated "good" by 52.9% of respondents, indicating that the system is quite accessible and user-friendly, while another 47.1% considered the system to be still not good due to technical problems that were not optimal.

These findings are in line with (Gebeyew et al, 2025) which emphasizes that *perceived ease of use* Not only does it affect the initial desire to try the system, but it also impacts the continued use. In the context of the Manisa Health Center, respondents who consider the system to be not good are likely to face technical obstacles or interface design that is not user-friendly, which has the potential to reduce usage retention in the future.

Indicator Quality of information received a "good" rating from 55.2% of respondents. This indicates that the information provided is quite clear and relevant. However, there are still 44.8% who consider the quality of information to be poor, which can be caused by a lack of socialization or an unintuitive display of information.(Handayuni, 2021) emphasizing that literacy *E-Health* Not only does it play a role at the level of health workers, but it also greatly determines how information can be effectively passed on to patients.

In this study, almost half of the respondents assessed that the information was not good, this can be interpreted as an indicator of weak information delivery systems, both in terms of content and interpersonal communication between officers and patients. In other words, technology alone is not enough without the support of an inclusive communication strategy.

Meanwhile, the Quality of Service rated well by 51.7% of respondents. However, almost half (48.3%) feel that the service is still not optimal, especially in terms of assistance during online registration. As expressed by Squirting(2022) The success of digital services is not only determined by the readiness of the system, but also by the existence of the *human support* at the points of interaction.

At the Manisa Health Center, the almost balanced perception between satisfaction and dissatisfaction shows the inconsistency of services, which can come from variability in staff abilities, lack of technical training, or even differences in the attitude of officers in accompanying patients. This inconsistency indicates that the system approach must be accompanied by service standardization and the active involvement of human resources.

Overall, these findings confirm that the success component of the system strongly determines the level of implementation of online enrollment. Factors such as ease of use, clarity of information, and the involvement and trust of health workers in the system play a major role in driving the adoption of digital technology in healthcare facilities, as also emphasized in the study Gebeyew et al (2025).

It should be emphasized that the respondents in this study were only outpatients who had used the online registration system (n = 87 out of a total of 687 online users), so they did not represent the entire outpatient population at the Manisa Health Center. This means that the findings reflect more the perception of active users of the system, not users

who have not or do not want to use online services. Therefore, these limitations need to be considered in drawing general conclusions or drafting broad policy recommendations.

CONCLUSION

Based on the results of research in the work area of the Manisa Health Center, Sidenreng Rappang Regency, it was found that the success of the system had a positive and significant effect on the implementation of online registration, with a significance value of p = 0.000 (< 0.05) and t count = 9.614 > t table = 1.988. This shows that the better the quality of the system—in terms of technical, information, and service—the higher the level of implementation.

However, the adoption rate is still low, with only 29.6% of total outpatients using the online system by 2025. This indicates that the implementation has not been running optimally, possibly due to low digital literacy, habit of manual services, and limited understanding and access to technology. These findings hint at the importance of digital literacy training for patients and staff, improvements to the system's interface to make it more user-friendly, and the provision of point-of-service companions to assist with the on-site enrollment process.

This research has several limitations**.** The research was only conducted in one health center, so the results could not describe conditions in other areas. Second, data is obtained through questionnaires (*self-reports*), so that respondents' answers can be influenced by personal perceptions and are not completely objective. Third, respondents only include active users of the online system, so they do not represent patients who are still using manual registration.

For further research, it is recommended to explore other factors influencing the adoption of digital systems, such as trust in technology, local cultural norms, and social support. A qualitative approach is also recommended to dig deeper into user perceptions and experiences, which are not covered by quantitative surveys. This study has limitations, namely the focus of the area only includes one health center, the use of self-report quantitative methods that are prone to perception bias, and the participation of respondents is limited to active users of the online system, so that it does not represent manual registration users

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REFERENCES

Afdoli, A. A., & Malau, H. (2019). Efektivitas Pelayanan Pendaftaran Online Rawat Jalan Di Rsup M Djamil Kota Padang. *Journal of Multidisciplinary Research and Development*, *1*(1), 1–24.

Aisyah, D. N., Setiawan, A. H., Lokopessy, A. F., Faradiba, N., Setiaji, S., Manikam, L., & Kozlakidis, Z. (2024). The Information and Communication Technology Maturity Assessment at Primary Health Care Services Across 9 Provinces in Indonesia: Evaluation Study. *JMIR Medical Informatics*, *12*. https://doi.org/10.2196/55959

Algifari, M. H., Zachary, L., Yuliani, R. P., Aditama, H., & Kristina, S. A. (2024). Digital

Health Literacy and Its Associated Factors in General Population in Indonesia. *Indonesian Journal of Pharmacy*, *35*(2), 355–362. https://doi.org/10.22146/ijp.5640

Astuti, N. D., Adi, K., & Putro, A. S. (2020). Analisis Penerimaan Sistem Pendaftaran Online Puskesmas Menggunakan TAM2 dan UTAUT. *Jurnal Manajemen Informasi Kesehatan Indonesia*, *8*(2), 170. https://doi.org/10.33560/jmiki.v8i2.285

Chotimah, S. N. (2022). Implementasi Sistem Informasi Kesehatan di Fasilitas Pelayanan Kesehatan Indonesia: Literature Review. *Jurnal Rekam Medis & Manajemen Infomasi Kesehatan*, *2*(1), 8–13. https://doi.org/10.53416/jurmik.v2i1.67

Damayanti, N. A., Wulandari, R. D., Ridlo, I. A., Azzahra, L., Akrimah, W. D., Rahmah, F., & Anis, W. (2023). Kesetaraan Gender dalam Pengambilan Keputusan Pemanfaatan Pelayanan Kesehatan di Daerah Urban dan Rural, Indonesia. *Jurnal Manajemen Kesehatan Indonesia*, *11*(2), 132–142. https://doi.org/10.14710/jmki.11.2.2023.132-142

Faizah, Z. (2021). Sistem Pendaftaran Pasien Rawat Jalan Berbasis Online Menggunakan Metode Fishbone. http://repository.stikes-bhm.ac.id/1203/1/Zalfa Faizah - 201807050 - KTI PDF - 2021.pdf

Gebeyew, A. . (2025). Health care professionals intention to use digital health data hub working in East Gojjam Hospitals, Northwest Ethiopia: Technology acceptance modeling. *PLoS ONE*, *20*(5 May), 1–18. https://doi.org/10.1371/journal.pone.0322460

Gustina, E. (2022). Sistem Informasi Nomor Antrian Pasien Pada Sawahan Berbasis Android ANDROID. *Erlyen Gustina*, *8.5.2017*, 2003–2005.

Handayuni, L. (2021). Faktor-Faktor yang Mempengaruhi Terhambatnya Proses Pendaftaran Pasien Berdasarkan E-Puskesmas. *Jurnal Manajemen Informasi Kesehatan Indonesia*, *9*(2), 129. https://doi.org/10.33560/jmiki.v9i2.326

Husein, D., Santoso, S., Muamar, M., & Nasrullah, A. (2022). Analysis of System Quality, Information Quality, and Service Quality on User Satisfaction of Simkah Web at KUA Kembangan District West Jakarta City. *Jurnal Bimas Islam*, *15*(1), 33–64. https://doi.org/10.37302/jbi.v15i1.588

Iim Al Imron, & Sri Rejeki. (2024). Analisis Pengelolaan Mutu Pelayanan Loket Pendaftaran Pasien Rawat Jalan di Puskesmas Bulakamba. *Jurnal Riset Ilmu Kesehatan Umum Dan Farmasi (JRIKUF)*, *2*(2), 89–101. https://doi.org/10.57213/jrikuf.v2i2.248

Kementerian Kesehatan RI. (2017). Peraturan Menteri Kesehatan Republik Indonesia Nomor 46 Tahun 2017 tentang Strategi E-Kesehatan Nasional. *Peraturan Menteri Kesehatan Republik Indonesia Nomor 46 Tahun 2017 Tentang Strategi E-Kesehatan Nasional*, *1635*, 1–36.

Kharismatus Ikhyana, F., Setyawan, F. E. B., Pratama, P., & Iswanti, Y. (2023). Keefektifan Sistem Pendaftaran dan Antre Online Terhadap Pelayanan Kesehatan. *CoMPHI Journal: Community Medicine and Public Health of Indonesia Journal*, *4*(1), 103–110. https://doi.org/10.37148/comphijournal.v4i1.148

Ojo, A. I. (2017). *Validasi Model Kesuksesan Sistem Informasi DeLone dan McLean Adebowale*. *23*(1), 60–66.

Purwiningsih, D. D., Ika Barokah Suryaningsih, & Viera Wardhani. (2023). Pengaruh Healthcare Service Quality terhadap Kepercayaan (Trust) Melalui Kepuasan Pasien pada Puskesmas di Kabupaten Jember. *Jurnal Kesehatan Komunitas*, *9*(3), 532–541. https://doi.org/10.25311/keskom.vol9.iss3.1559

Raharna, M. G. (2023). Analisis kepuasan pasien dalam penggunaan sistem pendaftaran pada sistem Rawat Jalan di RS Mardi Rahayu Kudus. In *Jurnal Media Ekonomi* (Vol. 7, Issue 1, pp. 1–20).

Rifial, M., Razak, A., Darmawansyah, D., Indar, I., & Rahman, A. (2024). Impact of Health System Usage, Patient Satisfaction, Information Quality, and Service Quality on Hospital Management Information System Utilization at Madani Regional General Hospital. *Journal of Angiotherapy*, *8*(11), 1–8. https://doi.org/10.25163/angiotherapy.81110061

Rismawan, I., & Renaningtyas, N. (2024). Analisis Efektifitas Penggunaan E-Medical Record Terhadap Waktu Tunggu Pasien Di Rumah Sakit. *Jurnal …*, *5*, 2437–2451. http://journal.universitaspahlawan.ac.id/index.php/jkt/article/view/16588

Rohman, H., Wati, A. K., & Kurniawan, A. (2022). Implementasi Pendaftaran Online Pasien Rawat Jalan Berbasis Web Di Puskesmas. *Jurnal Pengabdian Masyarakat - Teknologi Digital Indonesia.*, *1*(1), 42. https://doi.org/10.26798/jpm.v1i1.572

Siskia Nur Aini Putri, F. A. (2024). *Analisis Sistem pendaftaran Online dan Offline Pasien Rawat Jalan Pada Jaminan Kesehatan Nasional (JKN) Rumah Sakit Umum Bina Sehat*. *6681*(7), 1412–1418.

Tsani Wulandari, D., Ferdian Salim, M., Setyadi Nugraha, B., Susiana Hartati, O., Muldyanti, W., Studi Sarjana Terapan Manajemen Informasi Kesehatan, P., & Vokasi, S. (2023). Analisis Faktor Penghambat Implementasi Sistem Informasi Kesehatan Untuk Sensus Harian Rawat Inap Di Rsud Muntilan Analysis of Inhibiting Factors in the Implementation of Health Information System for Daily Inpatient Census At Rsud Muntilan. *Jurnal Informasi Kesehatan Indonesia*, *9*(1), 59–69.

Yuniarti, I. F., Novrikasari, N., & Misnaniarti, M. (2021). Pengaruh Kualitas Sistem, Kualitas Informasi, Kualitas Pelayanan pada Kepuasan Pengguna dan Dampaknya pada Manfaat Bersih (Penelitian terhadap Sistem Informasi Surveilans Penyakit Tidak Menular). *Jurnal Epidemiologi Kesehatan Komunitas*, *6*(1), 161–180. https://doi.org/10.14710/jekk.v6i1.8003