



The Influence of My Hatta Online Registration System Innovation on Patient Satisfaction

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ABSTRACT

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Patient satisfaction is a key indicator of healthcare quality, yet lengthy registration procedures and inefficient administrative services continue to diminish patient perceptions of hospital performance. To address these challenges, the hospital implemented the My Hatta online registration system as part of its digital healthcare transformation. This study aimed to examine the effect of the My Hatta online registration system innovation on patient satisfaction. A quantitative associative research design with a cross-sectional approach was used. Data were collected from 100 patients selected through random sampling using a structured questionnaire and analyzed using descriptive statistics and simple linear regression with IBM SPSS. The results showed that the online registration system innovation was rated as good (TCR = 83.08%) and significantly influenced patient satisfaction ($\beta = 0.793$, $p < 0.001$), explaining 62.9% of the variance in patient satisfaction ($R^2 = 0.629$). The results indicated that greater perceived usefulness, ease of use, compatibility, image enhancement, and observable benefits of the My Hatta application contributed to higher patient satisfaction. This study concludes that patient-centered digital innovation is crucial for improving the quality of healthcare services in specialty hospitals. This study contributes theoretically by extending the application of the Technology Acceptance Model and innovation theory in specialty healthcare settings, and practically by providing evidence-based recommendations for improving digital registration services and patient-centered healthcare management.

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INTRODUCTION

Patient satisfaction has become one of the most important indicators of healthcare quality because it reflects whether healthcare services successfully meet public expectations while simultaneously influencing trust, treatment adherence, and long-term utilization of healthcare facilities (Ishak et al., 2026; Venetis & Brown, 2022). High patient satisfaction contributes to better healthcare outcomes by encouraging patients to continue treatment, comply with medical recommendations, and recommend healthcare institutions to others

(Rambuwan et al., 2026). Conversely, dissatisfaction may reduce patient loyalty, increase complaints, and weaken the public reputation of healthcare organizations. Previous studies have consistently demonstrated that satisfaction is closely associated with service quality, responsiveness, and organizational performance, making it an essential benchmark for evaluating healthcare delivery (Mularczyk-Tomczewska et al., 2025; Nwosu et al., 2023). Consequently, improving patient satisfaction is not merely an organizational objective but also a public health priority because healthcare systems capable of providing satisfying services are more likely to deliver equitable, efficient, and sustainable healthcare for society.

Despite continuous improvements in healthcare management, many hospitals continue to experience service problems that reduce patient satisfaction, particularly during the administrative registration process (Hassan et al., 2025; Yağar et al., 2025). Long waiting times, inefficient registration procedures, overcrowded queues, and complicated administrative requirements remain among the most common complaints reported by patients. These conditions often create negative first impressions because registration represents the initial interaction between patients and healthcare providers. Studies have shown that prolonged waiting times significantly influence patients' perceptions of healthcare quality and frequently become the principal reason for dissatisfaction, even when clinical services are satisfactory (Babasa et al., 2025; Kamble & Parlikar, 2026; Tevis & Jarjour, 2022). To overcome these challenges, hospitals have increasingly adopted digital technologies such as online registration systems to simplify administrative procedures, reduce waiting times, improve operational efficiency, and support public service reform toward more responsive, transparent, and patient-oriented healthcare services.

This issue is also evident at DR. Drs. M. Hatta Brain Hospital in Bukittinggi, which introduced the My Hatta application as an online registration system to improve healthcare accessibility and administrative efficiency. The application enables patients to register remotely, access physicians' schedules, and obtain hospital information before visiting the hospital. Although this innovation represents an important step toward healthcare digitalization, its implementation has not yet achieved optimal utilization. Some patients continue to experience technical problems, including application errors, unstable system performance, limited digital literacy, and difficulties navigating application features (Liu & Yu, 2024; Petroccia & Esposito, 2026). These challenges are particularly experienced by elderly patients, who constitute a substantial proportion of visitors to specialized neurological hospitals (Shimokihara et al., 2023). Consequently, the existence of digital technology alone does not guarantee improved patient satisfaction because successful implementation also depends on usability, accessibility, perceived usefulness, and patients' willingness to adopt technological innovations.

Previous studies have consistently reported that online registration systems contribute positively to patient satisfaction by simplifying healthcare access and reducing registration waiting times. Widiyanto, Kuswiadji, and Kartika (2022) found that online registration significantly improved outpatient satisfaction through greater convenience and administrative efficiency. Similarly, Pujilestari and Kismanto (2024) demonstrated that digital registration systems positively influenced patient satisfaction because patients perceived registration procedures as faster, easier, and more accessible. These findings support the Technology Acceptance Model (TAM), which explains that users are more likely to accept and utilize technology when they perceive it as useful and easy to operate. Furthermore, service quality theories emphasize that satisfaction emerges when service performance meets or exceeds user expectations, indicating that technological innovation may indirectly improve satisfaction through enhanced service quality.

Although previous studies provide valuable evidence regarding online registration systems, several important limitations remain unresolved. Most existing research has examined general hospitals rather than specialized healthcare institutions, despite differences in patient characteristics, service complexity, and technology adoption behavior (Pappas et al., 2026; Zhang et al., 2024). Moreover, earlier studies primarily focused on service efficiency and waiting time reduction while giving limited attention to innovation characteristics such as perceived usefulness, ease of use, compatibility with user needs, organizational image, and observable benefits as proposed (De La Vega et al., 2024). Consequently, empirical evidence explaining how innovation dimensions influence patient satisfaction in specialized hospitals remains limited. This research gap is particularly important because specialized neurological hospitals serve many elderly patients whose technological capabilities differ substantially from those of general hospital users. Therefore, additional empirical investigation is necessary to verify whether innovation-based online registration systems generate similar satisfaction outcomes within specialized healthcare settings.

The present study addresses these limitations by integrating innovation dimensions derived from the Technology Acceptance Model and Alshamari's innovation framework with patient satisfaction indicators proposed by Sharma (Sharma et al., 2024). Unlike previous studies that mainly evaluated online registration from operational efficiency perspectives, this research examines innovation as a multidimensional construct encompassing usefulness, ease of use, compatibility with user needs, organizational image, and observable outcomes (Ghahfarokhi, 2025; Wang & Luan, 2022). Furthermore, the study focuses specifically on the My Hatta application implemented at DR. Drs. M. Hatta Brain Hospital in Bukittinggi, representing a specialized healthcare context that has received limited scholarly attention. This integration offers a more

comprehensive understanding of how technological innovation influences patient satisfaction beyond administrative efficiency alone. Consequently, the study contributes both theoretically by enriching digital healthcare innovation literature and practically by providing evidence-based recommendations for improving digital healthcare services in specialized hospitals.

Based on the identified empirical phenomenon and research gap, this study investigates whether innovation in the My Hatta online registration system significantly influences patient satisfaction at DR. Drs. M. Hatta Brain Hospital in Bukittinggi. The study argues that successful digital innovation extends beyond merely introducing technological applications; rather, it depends on patients' perceptions that the innovation is beneficial, easy to use, responsive to their needs, capable of improving healthcare experiences, and capable of producing observable service improvements. This argument aligns with Rogers' Diffusion of Innovation Theory (2003), which states that innovations are more readily accepted when users perceive clear relative advantages and practical benefits (Spinnewijn et al., 2024). Accordingly, this study hypothesizes that innovation in the My Hatta online registration system positively and significantly affects patient satisfaction. The findings are expected to strengthen theoretical understanding while supporting hospital management in continuously improving patient-centered digital healthcare services.

RESEARCH METHODS

This study employed a quantitative associative research design to examine the influence of innovation in the My Hatta online registration system on patient satisfaction at DR. Drs. M. Hatta Brain Hospital in Bukittinggi. A quantitative approach was selected because the research aimed to objectively measure the relationship between the independent variable (online registration system innovation) and the dependent variable (patient satisfaction) using numerical data and statistical analysis. The associative design was considered appropriate because it allows researchers to determine whether a significant relationship exists between two variables and to estimate the magnitude of that relationship through inferential statistics. Furthermore, the study adopted a cross-sectional design, whereby data were collected at a single point in time to capture patients' perceptions of the My Hatta application after they had experienced the online registration process. This design enabled the study to provide empirical evidence regarding the contribution of digital service innovation to patient satisfaction within a specialized healthcare institution.

The research was conducted at DR. Drs. M. Hatta Brain Hospital in Bukittinggi, Indonesia, a government-owned specialized neurological hospital that has implemented the My Hatta online registration system as part of its healthcare digitalization initiative. This hospital was purposively selected because it represents one of the few specialized hospitals in Indonesia that has

integrated digital registration into its public healthcare services. In addition, the hospital serves patients with diverse neurological conditions, including a considerable proportion of elderly patients whose digital literacy varies substantially, making it an appropriate setting for examining technology acceptance and patient satisfaction. The implementation of the My Hatta application also provides a relevant empirical context for evaluating how digital innovation influences healthcare experiences, particularly in specialized hospitals where patient characteristics and service complexity differ from those in general hospitals.

Primary data were collected using a structured questionnaire developed from two theoretical constructs. The independent variable, online registration system innovation, was measured using five indicators proposed by Alshamari (2020): perceived usefulness, perceived ease of use, compatibility, image enhancement, and result demonstrability (Ngafeeson et al., 2024). Responses were measured using a five-point Likert scale ranging from strongly disagree to strongly agree. The study population consisted of all patients who had used the My Hatta application. Because the exact number of users was unavailable, the population was treated as infinite. Sample size was determined using the Lemeshow formula with a 95% confidence level and a 10% margin of error, resulting in 100 respondents. Respondents were selected using non-probability accidental sampling, whereby patients who had used the application and were encountered during the data collection period were invited to participate voluntarily.

Data analysis was performed using IBM SPSS software through descriptive and inferential statistical procedures. Descriptive statistics were used to summarize respondents' characteristics and describe the level of each research variable using the Respondent Achievement Level (TCR). Inferential analysis was subsequently conducted to test the proposed hypothesis. Prior to regression analysis, classical assumption tests were performed, including tests of normality using the Kolmogorov–Smirnov method, linearity, heteroscedasticity, and autocorrelation using the Durbin–Watson statistic, to ensure that the regression model satisfied the assumptions of the Best Linear Unbiased Estimator (BLUE). After these assumptions were fulfilled, simple linear regression analysis was employed to examine the influence of online registration system innovation on patient satisfaction. Statistical significance was assessed using the t-test, while the coefficient of determination (R^2) was calculated to determine the proportion of variance in patient satisfaction explained by the innovation variable, with statistical significance established at $\alpha = 0.05$.

The quality of the research instrument was evaluated through validity and reliability testing before hypothesis testing was conducted. Instrument validity was assessed using the Pearson Product–Moment correlation, with all questionnaire items demonstrating correlation coefficients exceeding the critical

value of 0.361, indicating satisfactory construct validity. Instrument reliability was examined using Cronbach's Alpha, resulting in coefficients of 0.770 for the online registration system innovation variable and 0.743 for the patient satisfaction variable. Both values exceeded the recommended threshold of 0.60, indicating acceptable internal consistency. In addition to instrument testing, standardized data collection procedures were applied to ensure consistency in questionnaire administration and minimize measurement error. These procedures ensured that the collected data accurately represented respondents' perceptions and provided a reliable basis for subsequent statistical analysis and hypothesis testing.

RESULTS AND DISCUSSION

Results

Demographic Characteristics of Respondents

The demographic profile of respondents provides important context for interpreting the research results, as factors such as age, gender, education level, occupation, and the frequency and type of service use can influence perceptions of the online registration system innovation and the satisfaction experienced. The characteristics of the respondents are presented in Figure 1.

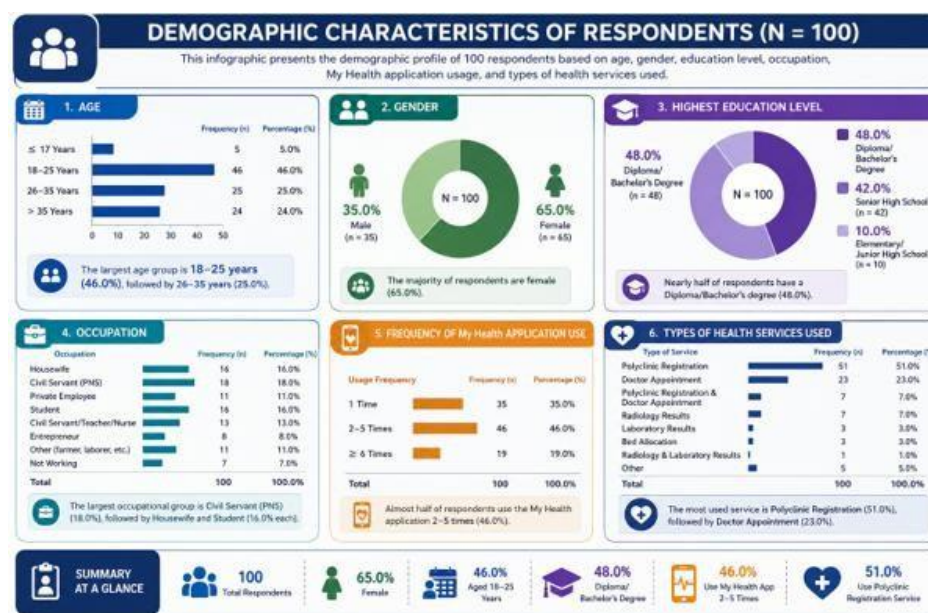


Figure 1. Infographic of Respondent Characteristics

Source: Processed Research Data (2026)

The analysis shows that the majority of respondents (46.0%) were in the 18–35-year age group, predominantly female (65.0%) compared to male (35.0%), with the highest level of education dominated by Diploma/Bachelor's degree holders (48.0%). In terms of occupation, the largest group consisted of homemakers (16.0%), while in terms of frequency of My Hatta service use, the

dominant category was 2–5 times (46.0%), and the most frequently used type of service was outpatient clinic (poli) registration (51.0%). This profile indicates that the majority of respondents were active users of My Hatta, particularly for outpatient clinic registration, and therefore possessed sufficient experience to assess the system innovation and their satisfaction with the service, as presented in the following section.

Description of the Level of My Hatta Online Registration System Innovation

The My Hatta online registration system innovation variable was measured using five indicators proposed by Alshamari (2020): perceived usefulness, perceived ease of use, compatibility, image enhancement, and result demonstrability. The results of the TCR analysis are presented in Table 1.

Table 1. Description of TCR for the My Hatta Online Registration System Innovation Variable (X)

Indicator	Mean	TCR (%)	N	Category
Perceived Usefulness	4.21	84.20	100	Very Good
Perceived Ease of Use	4.10	82.00	100	Good
Compatibility	4.13	82.60	100	Good
Image Enhancement	4.11	82.20	100	Good
Result Demonstrability	4.22	84.40	100	Very Good
Average Online Registration System Innovation	4.16	83.08	100	Good

Source: Processed Research Data (2026)

As shown in Table 1, the My Hatta online registration system innovation variable received an average score of 4.16 on a 5.0 scale, with a TCR of 83.08%, placing it in the good category. Of the five indicators, result demonstrability obtained the highest score (84.40%), while perceived ease of use obtained the relatively lowest score (82.00%), although it remained within the good category. This indicates that patients perceive tangible benefits from the My Hatta application, particularly in service efficiency, but ease of use still leaves room for improvement; this finding therefore needs to be examined alongside the patient satisfaction results discussed in the following section.

Description of the Level of Patient Satisfaction

The patient satisfaction variable was measured using four indicators proposed by Pohan (as cited in Murniaty et al., 2018): satisfaction with access to healthcare services, quality of healthcare services, healthcare service processes, and the healthcare service system. The results of the TCR analysis are presented in Table 2.

Table 2. Description of TCR for the Patient Satisfaction Variable (Y)

Indicator	Mean	TCR (%)	N	Category
Satisfaction with Access to Healthcare Services	4.05	81.00	100	Good
Satisfaction with the Quality of Healthcare Services	4.14	82.80	100	Good
Satisfaction with Healthcare Service Processes	4.13	82.60	100	Good
Satisfaction with the Healthcare Service System	4.12	82.40	100	Good
Average Patient Satisfaction	4.11	82.20	100	Good

Source: Processed Research Data (2026)

As shown in Table 2, the patient satisfaction variable obtained an average score of 4.11 out of a 5.0 scale, with a TCR of 82.20%, placing it in the good category. All indicators showed positive assessments, particularly in healthcare service quality (82.80%) and healthcare service processes (82.60%), while the healthcare service access aspect received the lowest score (81.00%) and therefore still requires improvement. To ensure that the descriptive patterns of these two variables could be tested causally, the data were subsequently analyzed through classical assumption testing as a prerequisite for regression.

Validity of the Regression Model through Classical Assumption Testing

Prior to analyzing the relationship between variables, classical assumption testing was conducted to ensure that the regression model satisfied statistical requirements, so that the resulting estimator would be a Best Linear Unbiased Estimator (BLUE) and the hypothesis-testing results could be trusted. The test results are presented in Table 3.

Table 3. Results of Classical Assumption Testing

Variable/Dimension	Normality (K-S) Sig.	Linearity Sig.	Heteroscedasticity Sig.	Autocorrelation (Durbin-Watson)
My Hatta Online Registration System Innovation	0.559	0.272	0.433	1.759
Patient Satisfaction				

Source: Processed Research Data (2026)

As shown in Table 3, all classical assumptions were satisfied. The Kolmogorov-Smirnov normality test yielded a significance value of 0.559 (> 0.05), indicating that the data were normally distributed. The linearity test yielded a deviation-from-linearity value of 0.272 (> 0.05), indicating a linear relationship between variables X and Y. The heteroscedasticity test yielded a p-value of 0.433 (> 0.05), indicating the absence of heteroscedasticity, and the autocorrelation test

yielded a Durbin-Watson statistic of 1.759, indicating that the model was free from autocorrelation. The fulfillment of all classical assumptions confirms that the regression model is robust and valid for legitimately testing the effect of online registration system innovation on patient satisfaction in the following section.

The Influence of My Hatta Online Registration System Innovation on Patient Satisfaction

With the classical assumptions satisfied, a simple linear regression analysis confirms a significant effect of the My Hatta online registration system innovation on patient satisfaction. The hypothesis-testing results are presented in Table 4.

Table 4. Hypothesis Testing Results

No.	Variable	R Square	t-value	Sig.	Beta
1	My Hatta Online Registration System Innovation → Patient Satisfaction	0.629	12.876	0.000	0.793

Source: Processed Research Data (2026)

The analysis produced the regression equation $Y = 1.734 + 0.764X$. This equation indicates that every one-unit increase in the My Hatta online registration system innovation increases patient satisfaction by 0.764 units. The t-test yielded a calculated t-value of $12.876 > t\text{-table } 1.984$, with a significance level of $0.000 < 0.05$, so the research hypothesis is accepted. A coefficient of determination (R^2) of 0.629 indicates that 62.9% of the variance in patient satisfaction is explained by the My Hatta online registration system innovation, while the remaining 37.1% is attributable to other factors outside the model. The strength of the relationship is classified as strong ($\beta = 0.793$). These findings confirm that the digitalization of healthcare services, particularly in the registration process, can provide a better service experience for patients through easier access, faster administrative processes, reduced physical queuing, and improved service-time efficiency. This result is consistent with the study of Widiyanto, Kuswiadji, and Kartika (2022), who demonstrated that online registration systems have a significant effect on patient satisfaction, as well as Pujilestari and Kismanto (2024), who stated that the implementation of online registration systems is significantly related to patient satisfaction because it provides easier access and speeds up the registration process.

This finding also supports Rogers's (2003) diffusion of innovation theory, which explains that innovations are more readily accepted when they offer relative advantage, meet user needs, and produce observable results. In this context, the My Hatta application is considered capable of delivering tangible benefits in the registration process, although technical obstacles and digital gaps remain. Patients' assessment of the system innovation, which falls into the good

category (TCR 83.08%), reinforces Alshamari's (2020) argument that the success of digital health services depends on perceived usefulness, ease of use, compatibility with patient expectations, enhanced service image, and observable results. From the perspective of patient satisfaction, a TCR of 82.20% (good category) indicates that, in general, patients are satisfied with the services at Dr. M. Hatta Brain Hospital in Bukittinggi after using the My Hatta online registration system innovation. This result is consistent with Kotler and Keller's (2016) view that satisfaction arises when service performance meets or exceeds user expectations, as well as with the patient-satisfaction indicators proposed by Pohan (2007), which encompass satisfaction with access, quality, process, and the healthcare service system. Nevertheless, several issues, such as usability difficulties for elderly patients, network disruptions, and the need for more intensive outreach, still warrant the hospital's attention.

Research Limitations

Although the research model proved significant, several limitations must be acknowledged to keep the interpretation of the results proportionate. These limitations are important to disclose because the limited scope of variables and research design may affect the generalizability of the findings to broader contexts. Specifically, these limitations include: first, the study used only one independent variable, whereas 37.1% of the variance in patient satisfaction is influenced by other factors not examined, such as information system quality, user trust, or facility quality; second, the accidental sampling technique and cross-sectional design at a single hospital site limit the ability to draw definitive causal conclusions and generalize the findings; and third, data collection relying on self-report questionnaires may introduce response bias, particularly among elderly patients who experienced technical difficulties. Taking these limitations into account, future research is recommended to include additional independent variables, increase the number of respondents through probability sampling, and compare multiple hospitals to obtain broader, more in-depth results.

Discussion

The findings demonstrate that innovation in the My Hatta online registration system has a positive and significant effect on patient satisfaction at DR. Drs. M. Hatta Brain Hospital in Bukittinggi, confirming that digital innovation plays a crucial role in improving patients' healthcare experiences (Delima et al., 2026). The regression analysis indicates a strong relationship between system innovation and patient satisfaction ($\beta = 0.793$), with the innovation variable explaining 62.9% of the variance in patient satisfaction ($R^2 = 0.629$). Moreover, descriptive analysis revealed that patients evaluated the innovation positively (TCR = 83.08%), while overall patient satisfaction was also categorized as good (TCR = 82.20%). These findings suggest that patients

perceive the My Hatta application as providing meaningful improvements in healthcare accessibility, administrative efficiency, and service convenience. The empirical evidence therefore supports the study's hypothesis that strengthening digital service innovation contributes substantially to enhancing patient satisfaction within specialized healthcare institutions (Ghahfarokhi, 2025; Liu & Yu, 2024; Wang & Luan, 2022).

These findings are consistent with previous studies demonstrating that online registration systems improve patient satisfaction by simplifying administrative procedures and reducing waiting times. Widiyanto, Kuswiadji, and Kartika (2022) reported that online registration significantly increased outpatient satisfaction through greater convenience and operational efficiency, while Yulianti (2025) likewise found that digital registration systems positively affected patient satisfaction because they facilitated easier access and accelerated registration processes (Aqsyari et al., 2026; Yulianti et al., 2025). The present study extends these earlier findings by demonstrating that the influence of online registration is not limited to general hospitals but is equally applicable within specialized neurological hospitals, where patient characteristics and healthcare needs differ considerably. Unlike previous studies that primarily emphasized operational efficiency, this research highlights that innovation dimensions including perceived usefulness, perceived ease of use, compatibility, image enhancement, and result demonstrability collectively shape patients' satisfaction with digital healthcare services (Petroccia & Esposito, 2026; Tevis & Jarjour, 2022). Consequently, this study provides broader empirical evidence regarding the multidimensional nature of healthcare digital innovation.

From a theoretical perspective, the findings strongly support the Technology Acceptance Model (TAM) proposed by Davis (1989), which argues that technology acceptance is largely determined by users' perceptions of usefulness and ease of use (Kao & Huang, 2023). The high evaluation of perceived usefulness and result demonstrability indicates that patients recognize tangible benefits generated by the My Hatta application, thereby encouraging favorable evaluations of healthcare services. Furthermore, the findings reinforce Rogers' (2003) Diffusion of Innovation Theory, which explains that innovations are more readily accepted when they provide relative advantages, meet user needs, and produce observable outcomes (Alexanian et al., 2026). Nevertheless, the relatively lower score for perceived ease of use suggests that technological acceptance remains influenced by users' digital capabilities, particularly among elderly patients who experience greater difficulty interacting with digital applications (Ngafeeson et al., 2024; Petroccia & Esposito, 2026). Therefore, this study enriches innovation and healthcare service literature by demonstrating that innovation adoption within specialized hospitals depends not only on technological availability but also on users' perceptions and practical experiences.

The findings also generate important practical implications for hospital management and healthcare policymakers. Although the My Hatta application has successfully improved patients' perceptions of service quality, the persistence of usability difficulties, system disruptions, and limited digital literacy indicates that continuous improvement remains necessary (Hassan et al., 2025; Rambuwani et al., 2026; Yağar et al., 2025). Hospital administrators should prioritize enhancing application usability through simpler interfaces, greater system stability, clearer navigation, and broader compatibility across mobile devices (Nwosu et al., 2023). In addition, educational initiatives targeting elderly patients and first-time users should be strengthened through digital assistance, instructional materials, and registration support services. Improving technological infrastructure and providing responsive technical support are equally important to ensure uninterrupted access to online services. Such improvements are expected not only to increase patient satisfaction but also to strengthen public trust, reduce administrative congestion, and improve operational efficiency within specialized healthcare institutions implementing digital transformation initiatives (Liu & Yu, 2024; Yağar et al., 2025).

This study makes several significant contributions to both theory and practice. Theoretically, it extends previous healthcare digitalization research by integrating Alshamari's innovation dimensions with Pohan's patient satisfaction indicators within a specialized neurological hospital, a context that has received relatively limited scholarly attention (Hassan et al., 2025; Rambuwani et al., 2026). The findings confirm that healthcare innovation should be conceptualized as a multidimensional construct encompassing technological performance, user experience, organizational image, and observable service outcomes rather than merely administrative efficiency. Practically, the study provides evidence-based recommendations for evaluating and improving digital registration systems in hospitals serving patients with diverse technological competencies. Furthermore, the relatively large unexplained variance (37.1%) indicates opportunities for future research to incorporate additional determinants such as system quality, digital trust, service quality, information security, and healthcare facility characteristics. Accordingly, this research contributes to advancing both healthcare innovation theory and patient-centered digital service management while providing a valuable empirical reference for future investigations in specialized healthcare settings.

CONCLUSION

This study concludes that innovation in the My Hatta online registration system has a positive and significant influence on patient satisfaction at DR. Drs. M. Hatta Brain Hospital in Bukittinggi, demonstrating that successful healthcare digitalization depends not merely on the availability of technology but on its ability to provide tangible benefits, ease of use, compatibility with patients'

needs, enhancement of institutional image, and observable service improvements. The principal lesson derived from this research is that patient-centered digital innovation constitutes a strategic instrument for improving healthcare quality, administrative efficiency, and public trust in specialized healthcare institutions. The study contributes to the existing body of knowledge by extending the application of the Technology Acceptance Model (TAM) and innovation theory to the context of a specialized neurological hospital while integrating innovation dimensions with patient satisfaction indicators, thereby enriching the literature on digital healthcare service innovation beyond general hospital settings. Nevertheless, several limitations should be acknowledged, including the use of a cross-sectional design, accidental sampling at a single hospital, and the examination of only one independent variable, leaving 37.1% of the variance in patient satisfaction explained by other factors. Future studies are therefore encouraged to employ probability sampling, include multiple specialized and general hospitals for comparative analysis, adopt longitudinal research designs, and incorporate additional determinants such as information system quality, digital trust, service quality, perceived security, and digital literacy to provide a more comprehensive understanding of patient satisfaction in healthcare digital transformation.

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