

THE INFLUENCE OF DIGITAL COMMUNICATION STRATEGY AND SERVICE QUALITY ON PATIENT LOYALTY AT RSU PINDAD BANDUNG

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Abstract

This study aims to analyze the influence of Digital Communication Strategy and Service Quality on Patient Loyalty at RSU Pindad Bandung. The background of this research lies in the importance of implementing effective communication strategies and improving service quality to build patient trust and loyalty in the digital era. The research method employed is associative with a survey approach involving 200 patient respondents. Data were collected through a Likert-scale questionnaire and analyzed using multiple linear regression, validity and reliability tests, classical assumption tests, t-test, F-test, and coefficient of determination (R^2). The results show that partially, the Digital Communication Strategy has an effect of 24.90%, while Service Quality has an effect of 56.90% on Patient Loyalty. Simultaneously, both variables have a significant influence on Patient Loyalty by 81.8%, while the remaining 18.2% is affected by other factors beyond this study. These findings emphasize that effective digital communication management and high-quality service are key factors in enhancing patient loyalty and strengthening the hospital's positive image.

Keywords: Digital Communication Strategy, Service Quality, Patient Loyalty.

INTRODUCTION

The rapid development of digital technology in the global era has transformed communication patterns, social interactions, and organizational approaches to building relationships with the public. In the field of communication science, digital media now serve as the primary channel for disseminating information, shaping institutional image, and fostering two-way interaction between organizations and stakeholders.

According to the *We Are Social* and *Meltwater* (2024) report, there are 5.35 billion internet users worldwide, representing 66.2% of the global population, with over 92% using the internet to seek information. In the healthcare sector, *ZipDo Education Reports* (2025) highlight that 70% of global consumers use digital channels to find medical information, and 78% rely on online reviews and social media as references when selecting healthcare providers. These findings illustrate that digital communication has become an essential element of public engagement and decision-making processes, especially in health services.

In this context, digital transformation requires hospitals to adapt to evolving patient behaviors that increasingly depend on online information and digital interactions. The success of a hospital's digital communication strategy determines not only the clarity and reliability of information delivery but also the institution's credibility, transparency, and patient trust. Therefore, hospitals must design their communication strategies comprehensively—

integrating informative, educational, and human-centered messages—to connect patient needs with accessible and responsive healthcare services.

The importance of digital communication in healthcare is also reinforced by national regulations. Law No. 36 of 2009 on Health, Law No. 44 of 2009 on Hospitals, and the Ministry of Health Regulation No. 82 of 2013 on Hospital Management Information Systems (SIMRS) mandate hospitals to provide transparent and accessible information services. Furthermore, Law No. 11 of 2008 on Electronic Information and Transactions (ITE) and Law No. 14 of 2008 on Public Information Disclosure (KIP) emphasize the necessity of accuracy, reliability, and ethics in disseminating information through digital platforms.

RSU Pindad Bandung, under PT Pindad Medika Utama—a subsidiary of PT Pindad (Persero)—is one of the hospitals striving to optimize its digital communication strategy to strengthen patient relations and improve the quality of healthcare services. Through the implementation of digital information systems, online portals, and interactive communication channels, RSU Pindad Bandung aims to enhance information accessibility, service responsiveness, and institutional transparency.

However, several challenges persist, including the effectiveness of message delivery, consistency across digital media, and the hospital's ability to maintain meaningful engagement with patients through digital means. From a service quality perspective, patients have expressed varied perceptions regarding response speed, information clarity, and empathy of medical personnel. These issues indicate that digital communication initiatives have not yet been fully aligned with optimal service quality, which may influence patient satisfaction and loyalty.

Overall, these conditions underscore the interrelationship between digital communication strategy, service quality, and patient loyalty. A well-implemented communication strategy can enhance patient understanding, trust, and satisfaction, while consistent service quality fosters positive experiences and long-term emotional bonds. The synergy between these factors is therefore critical in maintaining and strengthening patient loyalty in the digital era.

LITERATURE REVIEW

Digital Marketing Strategy

According to Chaffey and Ellis-Chadwick (2022), a digital communication strategy is a comprehensive plan that integrates various digital media channels to achieve organizational communication goals by enhancing engagement, user experience, and stakeholder trust. This strategy focuses on how institutions manage, convey, and maintain consistent messages through digital platforms to strengthen relationships with their audiences. In the healthcare context, a digital communication strategy serves to build transparent and interactive communication between hospitals and patients through digital platforms such as websites, social media, applications, and hospital information systems. This approach goes beyond mere information dissemination — it aims to create two-way communication, foster trust, and improve the overall patient experience. The dimensions of the digital communication strategy (Chaffey & Ellis-Chadwick, 2022; Wong et al., 2023; Gupta & Sharma, 2021) include:

1. Message Clarity – emphasizes the delivery of accurate, consistent, and easily understood information about healthcare services, procedures, and hospital policies
2. Platform Integration – relates to the effective coordination and synchronization of communication across various digital platforms such as social media, hospital websites, and mobile apps.
3. Audience Engagement – refers to how actively patients and the public interact with the hospital through digital platforms, including providing feedback, sharing experiences, or participating in online discussions.
4. Digital Experience – focuses on the ease of navigation, accessibility, and satisfaction of users in utilizing digital communication channels provided by the hospital.
5. Analytics and Evaluation – involves the use of communication data analytics to assess message effectiveness, audience response, and the overall performance of digital communication initiatives.

Service Quality

According to Kotler and Keller (2021), service quality is the organization's ability to meet or exceed customer expectations through a combination of efficiency, effectiveness, and the overall experience perceived during service delivery. High-quality service is a major determinant of customer satisfaction and loyalty, especially in healthcare, where direct interactions between staff and patients are vital. Kotler & Keller (2021) identify five dimensions of service quality:

1. Tangibles – physical facilities and equipment, such as cleanliness, comfort, and modern medical tools.
2. Reliability – the hospital's ability to deliver services as promised and maintain consistency and accuracy.
3. Responsiveness – the speed and willingness of staff to respond to complaints, provide information, and assist patients.
4. Assurance – the trust and confidence derived from medical staff's competence, politeness, and clear communication.
5. Empathy – the extent of personalized attention, warmth, and emotional support given to patients.

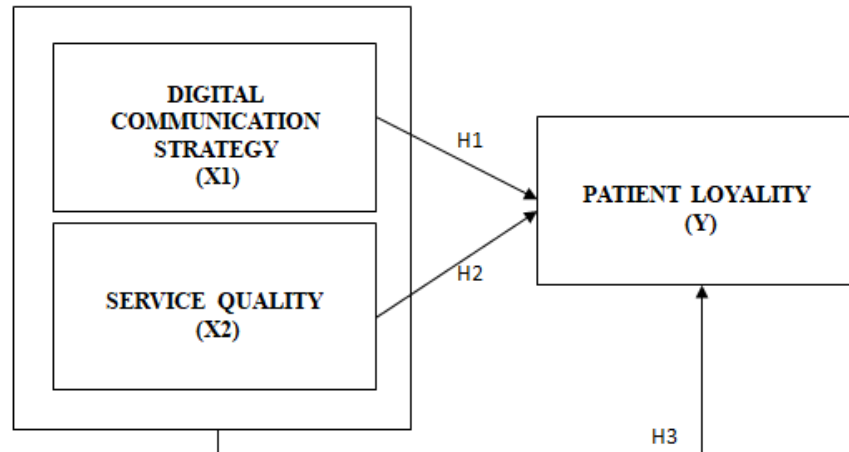
Patient Loyalty

Kotler and Keller (2021) define patient loyalty as the degree of commitment shown by patients to reuse hospital services and recommend them to others. Patient loyalty reflects not only satisfaction with received services but also trust, emotional attachment, and positive perception toward the healthcare institution. The dimensions of patient loyalty include:

1. Repeat Visit – patients' willingness to return for services based on positive prior experiences.
2. Recommendation – patients' readiness to recommend the hospital to others through personal referrals or online reviews.
3. Emotional Attachment – the emotional bond and trust established between patients and healthcare providers.
4. Digital Service Loyalty – patients' commitment to consistently use hospital digital systems, such as SIMRS, social media, or online applications.

5. Perceived Value and Satisfaction – the extent to which patients believe the benefits of the service are proportional to the time, cost, and expectations they have.

Research Model



A hypothesis is a statement or temporary assumption that will be tested for its validity in the research (Creswell, J. W., 2023:121).

H1: There is an influence of service quality on patient loyalty at RSU Pindad Bandung.

H2: There is an influence of digital communication strategy on patient loyalty at RSU Pindad Bandung.

H3: There is a simultaneous influence of digital communication strategy and service quality on patient loyalty at RSU Pindad Bandung.

OBJECT AND RESEARCH METHOD

Research Object

The object of this research consists of the Digital Communication Strategy and Service Quality as independent variables (X), and Patient Loyalty as the dependent variable (Y).

Type of Research

The method used in this study is associative research with a survey approach. According to Creswell (2023:150), associative research aims to identify the relationship between two or more variables. There are three types of relationships: causal, reciprocal, and symmetrical (Creswell, 2023:151).

Population and Sample

The population in this study includes all patients of RSU Pindad Bandung under PT Pindad Medika Utama, totaling 17,980 individuals. This population was chosen because all patients are considered to have relevant experiences and perceptions regarding the hospital's digital communication strategy and service quality, which may influence their loyalty.

The sampling technique employed in this study was stratified random sampling, in which respondents were categorized based on their type of patient experience, including users of RSU's digital services, regular or returning patients, and new patients. This approach was applied to ensure that each patient group was proportionally represented within the sample, thereby enhancing the accuracy and representativeness of the research findings.

The sample size was determined based on Hair et al. (2019), which recommends 15–20 times the number of independent variables. Since this study involves two independent variables, the ideal minimum sample size ranges between 30–40 respondents. However, to increase the validity and representativeness of the findings, a total of 200 respondents were selected as the final sample.

Thus, this study involves 200 patients of RSU Pindad Bandung as respondents, chosen through stratified random sampling to comprehensively describe the influence of digital communication strategy and service quality on patient loyalty.

Table 1. Operational Definition of Variables

Variable	Definition	Dimension	Indicator	Scale	Item No.
Digital Communication Strategy (X1)	According to Chaffey & Ellis-Chadwick (2022), a digital communication strategy is a structured framework that integrates multiple digital media channels to enhance message clarity, engagement, and digital experience, supporting effective hospital–patient communication.	Message Clarity	Health service content is clear and easy to understand.	Interval	1
			Information about medical procedures, doctors, and schedules is accurate and informative.	Interval	2
		Platform Integration	Service information is available consistently across digital platforms (website, app, social media).	Interval	3
			Content posting schedules match patient information needs.	Interval	4
		Audience Engagement	Patients provide feedback or testimonials through digital platforms.	Interval	5
		Digital Experience	The hospital's website/app is easy to navigate and user-friendly.	Interval	6
			The online registration process is fast and simple.	Interval	7

Variable	Definition	Dimension	Indicator	Scale	Item No.
			Digital features (queue info or examination status) are helpful for patients.	Interval	8
			Patients feel satisfied using the hospital's digital platforms.	Interval	9
		Analytics and Evaluation	Patient engagement data are analyzed to improve communication strategies.	Interval	10
			Digital evaluation results are used to enhance online service quality.	Interval	11
Service Quality (X2)	According to Kotler & Keller (2021), service quality reflects an institution's capability to fulfill or surpass customer expectations through efficiency, effectiveness, and overall service experience.	Tangibles (Facilities and Equipment)	Cleanliness of waiting rooms and inpatient wards.	Interval	1
			Availability of modern medical equipment and facilities.	Interval	2
			Clarity of service information boards and signage.	Interval	3
			Comfort of public spaces (seating, ventilation, lighting).	Interval	4
		Reliability (Service Consistency)	Accuracy of doctor consultation schedules.	Interval	5
			Consistency in registration and service procedures.	Interval	6
			Services are delivered as promised.	Interval	7
			Administrative handling is accurate and error-free.	Interval	8
		Responsiveness (Speed and Willingness to Help)	Speed of response to patient complaints.	Interval	9
			Waiting time and service time at	Interval	10

Variable	Definition	Dimension	Indicator	Scale	Item No.
			registration counters.		
			Responsiveness to information requests via the Hospital Information System (HIS).	Interval	11
			Accessibility for elderly patients or those without digital devices.	Interval	12
			Staff readiness in handling emergency situations.	Interval	13
		Assurance (Professionalism and Trust)	Confidence in the competence of medical staff.	Interval	14
			Courtesy and communication skills of hospital staff.	Interval	15
			Assurance of safety in medical procedures.	Interval	16
			Clear explanations of diagnosis and medical actions.	Interval	17
		Empathy (Care and Personal Attention)	Personal attention to patients, especially the elderly.	Interval	18
			Warm and friendly communication with patients.	Interval	19
			Assistance for patients having difficulty using digital systems.	Interval	20
			Willingness to listen to patients' complaints and needs.	Interval	21
			Services that consider patients' psychological comfort.	Interval	22
Patient Loyalty (Y)	According to Kotler & Keller (2021), patient	Repeat Visit	Patients return to the hospital for future medical needs.	Interval	1

Variable	Definition	Dimension	Indicator	Scale	Item No.
	loyalty refers to the consistent intention to reuse healthcare services and recommend them to others, based on satisfaction and emotional attachment.		Patients choose the same doctor based on previous positive experiences.	Interval	2
			Patients follow outpatient procedures according to hospital recommendations.	Interval	3
		Recommendation to Others	Patients recommend RSUD Pindad to family or friends.	Interval	4
			Patients leave positive reviews on hospital social media or digital platforms.	Interval	5
			Patients are willing to act as informal references for new patients.	Interval	6
		Emotional Attachment	Patients feel comfortable and trust the medical staff.	Interval	7
			Patients hold positive perceptions of hospital services.	Interval	8
			Patients feel personally cared for, both in-person and through digital interactions.	Interval	9
		Digital Service Commitment	Patients use the Hospital Information System (HIS) for registration and service information.	Interval	10
			Patients follow hospital updates through its website or social media.	Interval	11
		Perceived Value and Satisfaction	Patients believe the hospital services meet their expectations.	Interval	12
			Patients find the cost and time spent equivalent to the benefits received.	Interval	13

Variable	Definition	Dimension	Indicator	Scale	Item No.
			Patients are satisfied with their overall healthcare experience.	Interval	14

Source: Processed from Various Sources, 2025

Data Collection Technique

The data collection method used in this study involved questionnaires obtained through library research, online research, and field research. Data were measured using a Likert scale, which is used to assess the attitudes, opinions, and perceptions of individuals or groups regarding a social phenomenon (Sugiyono, 2020:93).

Table 2. Likert Scale Weight / Score

No	Response Option	Weight / Score
1.	Strongly Disagree	1
2.	Disagree	2
3.	Neutral	3
4.	Agree	4
5.	Strongly Agree	5

Source: Bryman, A., & Bell (2021)

DATA ANALYSIS

The data were analyzed using Multiple Linear Regression Analysis, accompanied by the Validity Test, Reliability Test, Classical Assumption Test, Partial Statistical Test (t-test), Simultaneous Statistical Test (F-test), and Coefficient of Determination (R^2) Test.

DISCUSSION

The validity and reliability tests showed that the variables — Digital Communication Strategy (X1), Service Quality (X2), and Patient Loyalty (Y) — were valid and reliable, as indicated by the achieved standard values below:

Variable	Validity Standard	Realized Validity	Cronbach's Alpha Standard	Realized Reliability
X1	≥ 0.3	0.735 – 0.844	≥ 0.6	0.941
X2	≥ 0.3	0.553 – 0.875	≥ 0.6	0.972
Y	≥ 0.3	0.795 – 0.857	≥ 0.6	0.969

The Classical Assumption Test results indicated that the data were normally distributed, with no multicollinearity or heteroscedasticity issues, confirming that the regression model met the necessary assumptions for a good linear model.

The Multiple Linear Regression Equation is as follows:

$$Y = 1.412 + 0.288X_1 + 0.635X_2$$

Interpretation:

- $a = 1.412 \rightarrow$ If Digital Communication Strategy (X_1) and Service Quality (X_2) are both 0, Patient Loyalty (Y) will be 1.412.
- $b_1 = 0.288 \rightarrow$ If Digital Communication Strategy (X_1) increases by one unit while Service Quality (X_2) remains constant, Patient Loyalty (Y) increases by 0.288.
- $b_2 = 0.635 \rightarrow$ If Service Quality (X_2) increases by one unit while Digital Communication Strategy (X_1) remains constant, Patient Loyalty (Y) increases by 0.635.

Partial Test (t-test)

Decision criteria:

1. If $t_{count} < t_{table}$ and significance $> 0.05 \rightarrow H_0$ accepted, H_1 rejected
2. If $t_{count} > t_{table}$ and significance $< 0.05 \rightarrow H_0$ rejected, H_1 accepted

With $\alpha = 0.05$, $t_{table} = (\alpha/2; n-k-1) = (0.025; 197) = \mathbf{1.972}$

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Beta	t	Sig.
(Constant)	1.412	1.865		0.757	0.450
Digital Communication Strategy	0.409	0.104	0.288	3.929	0.000
Service Quality	0.454	0.052	0.635	8.678	0.000

Source: SPSS Output Version 29

Interpretation:

- X_1 (Digital Communication Strategy) has a significance value of $0.000 < 0.05$ and $t_{count} = 3.929 > t_{table} = 1.972 \rightarrow$ significant effect on Patient Loyalty.
- X_2 (Service Quality) has a significance value of $0.000 < 0.05$ and $t_{count} = 8.678 > t_{table} = 1.972 \rightarrow$ significant effect on Patient Loyalty.

Simultaneous Test (F-test)

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	14,890.505	2	7,445.252	443.828	0.000
Residual	3,304.690	197	16.775		
Total	18,195.195	199			

Source: SPSS Output Version 29

The results show that the variables Digital Communication Strategy and Service Quality have a simultaneous significance value of $0.000 < 0.05$ and $F_{count} = 443.828 > F_{table} = 3.04$, indicating a significant joint effect on Patient Loyalty at RSU Pindad Bandung.

Partial Determination Coefficient (r^2)

Variable	Beta	Correlation (r)	Effective Contribution (SE)	Relative Contribution (SR)	R ²
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X1	0.288	0.865	24.9%	30.44%	81.8%
X2	0.635	0.897	56.9%	69.56%	

Source: SPSS Output Version 29 (Processed by Author)

This indicates that the Digital Communication Strategy (X1) contributes 24.9%, and Service Quality (X2) contributes 56.9% to Patient Loyalty (Y). The overall coefficient of determination ($R^2 = 0.818$) shows that 81.8% of the variance in patient loyalty is explained by both variables, while the remaining 18.2% is influenced by other factors not examined in this study.

CONCLUSION

1. H1 is accepted: Digital Communication Strategy has a 24.9% influence on Patient Loyalty.
2. H2 is accepted: Service Quality has a 56.9% influence on Patient Loyalty.
3. H3 is accepted: Both Digital Communication Strategy and Service Quality jointly influence Patient Loyalty by 81.8%, with the remaining 18.2% affected by other unobserved factors.

RECOMMENDATIONS

1. For RSU Pindad Bandung: It is recommended to continue optimizing its Digital Communication Strategy and Service Quality by enhancing information effectiveness, service consistency, and strengthening relationships with patients both online and offline. This effort is expected to increase Patient Loyalty and support the hospital's service sustainability.
2. For future researchers: It is recommended to expand future research by including additional variables such as trust, reputation, or digital experience, to provide a more comprehensive understanding of patient behavior in the digital era.

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