

THE INFLUENCE OF DIGITAL REPUTATION ON HOSPITAL SELECTION DECISIONS

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Abstract: Digital transformation has fundamentally altered consumer behavior, including decision-making processes in the highly involved healthcare sector. Although numerous studies have investigated electronic word-of-mouth (e-WOM) in commercial contexts, empirical evidence on its influence among uninsured healthcare consumers in developing countries remains limited. This study aims to analyze the effect of online customer ratings and online customer reviews on the healthcare service selection decisions of non-BPJS (non-national health insurance) patients at Lirboyo General Hospital, Kediri, Indonesia. A quantitative, cross-sectional survey design was employed with 67 purposively selected respondents. Data were collected using a validated Likert-scale questionnaire and analyzed through multiple linear regression using SPSS v.26. The results show that online customer ratings ($\beta = 0.948$; $p < 0.05$) and online customer reviews ($\beta = 0.387$; $p < 0.001$) have a significant positive effect on selection decisions, jointly explaining 94.7% of the variance ($R^2 = 0.947$). These findings highlight the critical role of digital reputation in strengthening trust and reducing perceived risk among self-pay patients. The study contributes to the literature by integrating signaling theory and trust theory within a healthcare context and provides practical implications for hospital management in strategically managing digital reputation.

Keywords: online customer rating, online customer review, healthcare service selection, non-BPJS patient, e-WOM

1. Introduction

Global healthcare services are undergoing significant transformation driven by digital technology penetration. This shift repositions patients from passive recipients of medical recommendations to active participants in clinical decision-making (Chen & Hu, 2022). In Indonesia, the phenomenon is increasingly relevant as the Indonesian Internet Service Providers Association (APJII) reported that by 2024 internet penetration had reached 79.5%, equivalent to 221.6 million users. Beyond quantitative growth, internet use has also diversified, with one of the main reasons being the search for information—including healthcare-related information (APJII, 2024).

In a trust-based sector such as healthcare, where quality is intangible and outcomes are uncertain, consumers tend to seek additional information to minimize risk. Within this context, electronic word-of-mouth (e-WOM) emerges as a crucial information source (Goyette et al., 2021). Unlike traditional word-of-mouth communication, e-WOM offers broader reach, permanence, and flexible accessibility. This becomes particularly important for non-BPJS patients, who have full autonomy in selecting healthcare providers, making online information strategically significant in their decision-making process (Pramanik 2016).

Online customer ratings, typically presented as star scores, serve as instant heuristics for assessing service quality, while online reviews provide richer narratives contextualizing previous patient experiences (Agustina et al., 2018). Although e-WOM use in healthcare is

expanding, empirical evidence on its specific and combined effects on uninsured patients in developing countries remains limited.

This study addresses the gap by analyzing how online customer ratings and reviews, individually and simultaneously, influence healthcare service selection decisions among non-BPJS patients at Lirboyo General Hospital, a Paripurna-accredited institution in Kediri City. Theoretically, the study adopts signaling theory to examine ratings as credible signals of service quality and trust theory to explore how reviews build consumer confidence (Connelly et al., 2024; Handoyo, 2024). The findings are expected to enrich e-WOM literature in healthcare and provide managerial implications for digital reputation management.

2. Literature Review

Consumer Health Behavior in the Digital Era

Changes in consumer behavior when selecting healthcare services have become an increasingly important issue in the digital era. According to the 2023 survey conducted by the Indonesian Internet Service Providers Association (APJII), health-related content ranks among the most frequently accessed topics by Indonesian internet users, with 36.96% of respondents stating that they often search for such information. This finding indicates that Indonesian patients no longer rely solely on doctor recommendations; instead, they have begun adopting a self-directed approach in obtaining information and making decisions regarding healthcare services (Chen & Hu, 2022). This trend aligns with the concept of patient self-management driven by advancements in digital technology, while also highlighting the growing demand for technology-based healthcare services such as virtual consultations and remote patient monitoring.

Electronic Word-of-Mouth (e-WOM)

Electronic word-of-mouth (e-WOM) is defined as positive or negative statements made by consumers about a company's products or services and disseminated through online platforms (Goyette et al., 2021). This mechanism facilitates informal communication among consumers, enabling individuals to share their experiences and opinions. In the context of healthcare services, e-WOM serves as a significant proxy for evaluating patient experiences, helping potential patients minimize perceived risks and uncertainties related to service quality. This is particularly crucial because the quality of healthcare services is intangible and difficult to measure objectively before consumption (Bohdanov, 2017).

Signaling Theory and Online Customer Ratings

Signaling theory was developed to explain interactions under conditions of information asymmetry. The theory posits that signal senders can provide credible cues to represent attributes that are otherwise difficult to observe directly (Bafera & Kleinert, 2022; Connelly et al., 2024). In the healthcare context, hospitals act as signal senders by leveraging online customer ratings as measurable indicators of the quality and professionalism of their services.

Online customer ratings function as efficient signals because they provide instant information with minimal cognitive cost to prospective patients as signal receivers. Consistently high ratings imply a reliable standard of service—an essential attribute in the high-risk healthcare sector. A study by Hsieh and Lin shows that signals perceived by patients, including policies and additional services, positively influence perceived value, thereby increasing patients' intentions to select and utilize healthcare services (Hsieh & Lin, 2022).

Trust Theory and Online Customer Reviews

Trust theory emphasizes that trust serves as a fundamental mechanism for reducing complexity and uncertainty in decision-making processes (Handoyo, 2024). In the digital context, trust is understood as consumers' willingness to rely on online information despite limited verification mechanisms (Hidayat et al., 2021). Hospitals, as service providers, face the challenge of building this trust through online customer reviews, which function as social proof and simulate the real experiences of previous patients.

Online customer reviews play a critical role in shaping trust perceptions when the digital environment successfully minimizes doubts regarding inaccurate or manipulative content (Rachmiani et al., 2024). The credibility of the review source and the quality of the arguments presented are key determinants. For example, reviews from verified accounts tend to be perceived as more credible because they reduce uncertainty about the reviewer's identity (Mardumyan & Siret, 2023). This is consistent with findings that communication and trust between healthcare providers and patients are significant factors in decision-making (Cuevas et al., 2019). Therefore, detailed, credible, and contextual reviews are vital in strengthening patients' confidence in the integrity and quality of hospital services.

Healthcare Service Selection Decision Process

The consumer decision-making process, as proposed by Kotler and Armstrong, consists of five stages: need recognition, information search, alternative evaluation, purchase decision, and post-purchase behavior (Riswidianoro et al., 2024). For non-BPJS (non-national health insurance) patients, the information search stage is strongly influenced by digital sources. Online customer ratings and reviews serve as primary inputs during the alternative evaluation stage (Gurtner et al., 2024).

Non-BPJS patients typically conduct more thorough information searches because their healthcare decisions are based on personal financial considerations and perceived risks. This situation makes online reviews a dominant source of information that shapes patient beliefs and preferences regarding healthcare providers (Riswidianoro et al., 2024).

Conceptual Framework and Hypotheses

Based on the literature review, the conceptual framework of this study analyzes the partial and simultaneous effects of online customer ratings (X_1) and online customer reviews (X_2) on healthcare service selection decisions (Y).

Research Hypotheses:

H₁: Online customer ratings (X_1) have a significant effect on healthcare service selection decisions (Y).

H₂: Online customer reviews (X_2) have a significant effect on healthcare service selection decisions (Y).

H₃: Online customer ratings (X_1) and online customer reviews (X_2) simultaneously have a significant effect on healthcare service selection decisions (Y).

3. Method

Research Design and Location

This study employed a quantitative design with a cross-sectional survey approach, conducted at Lirboyo General Hospital in Kediri City in July 2025.

Population and Sample

The study population consisted of non-BPJS patients who sought online information prior to visiting the hospital. A total of 67 respondents were selected using purposive sampling, based on inclusion criteria of being 18–65 years old, having non-BPJS status, and a history of searching for health-related information online. The sample size met Green's criteria ($N \geq 50 + 8m$) for studies with two predictors.

Research Instrument

Data were collected using a 5-point Likert scale questionnaire measuring online customer ratings (X_1), online customer reviews (X_2), and healthcare service selection decisions (Y). Validity testing indicated that all items were valid, while reliability testing produced Cronbach's Alpha values above 0.600, confirming the instrument's reliability.

Analysis Data

Data were analyzed using multiple linear regression with SPSS version 26, following classical assumption tests for normality, multicollinearity, and heteroscedasticity.

4. Results and Discussion

Table 1. Demographic Characteristics of Patients

Characteristic	Category	Frequency	Percentage (%)
Age	18 – 29 years	35	52,20%
	30 – 44 years	29	43,30%
	45 – 54 years	2	3,00%
	55 – 65 years	1	1,50%
Gender	Female	38	56,72%
	Male	29	43,28%
Occupation	Student	10	14,00%
	Employee	15	22,40%
	Entrepreneur	19	28,40%
	Others	23	34,30%

Source: Primary data processed by the researcher (2025)

The majority of respondents were in the 18–29 (52.20%) and 30–44 (43.30%) age groups, indicating a dominance of the productive age segment, which is more active in accessing online health information. In terms of gender, females (56.72%) outnumbered males (43.28%), aligning with the tendency of women to be more proactive in seeking health-related information. Regarding occupation, most respondents were categorized as “others” (34.30%) and entrepreneurs (28.40%), suggesting that individuals in non-formal employment rely more heavily on the hospital's digital reputation when selecting healthcare services.

Table 2. Classical Assumption Test

Test	Indicator	Value	Criteria	Result
Normality	Monte Carlo	0,108	Sig. > 0,05	Met
Multicollinearity	<i>Tolerance</i>	<i>Tolerance</i> : 0,111	<i>Tolerance</i> : >0,10	Met
	<i>VIF</i>	<i>VIF</i> : 8,997	<i>VIF</i> : <10	
Heteroscedasticity	Glejser (X_1 , X_2)	X_1 : 0,184 X_2 : 0,331	Sig. > 0,05	Met

Source: Primary data processed by the researcher (2025)

The classical assumption test results indicate that the regression model meets the feasibility criteria. The residuals are normally distributed ($p = 0.108 > 0.05$), there is no multicollinearity (Tolerance = $0.111 > 0.10$; VIF = $8.997 < 10$), and no signs of heteroscedasticity were detected ($X_1 = 0.184$; $X_2 = 0.331 > 0.05$). Therefore, the regression model is suitable for hypothesis testing.

Table 3. Multiple Linear Regression Test

Variable	Unstandardized B	Sig. (p-value)
Constant	1,789	-
Online Customer Ratings	0,948	0,000
Online Customer Reviews	0,387	0,000

Source: Primary data processed by the researcher (2025)

Based on these results, the regression equation is formulated as follows:

$$Y = 1,789 + 0,948X_1 + 0,387X_2$$

Where:

- Y = Healthcare Service Selection Decision
- X_1 = Online Customer Ratings
- X_2 = Online Customer Reviews

The regression results indicate that the constant of 1.789 means that if X_1 and X_2 are equal to zero, the healthcare service selection decision will have a baseline value of 1.789. A one-unit increase in Online Customer Ratings (X_1) increases the selection decision by 0.948, while a one-unit increase in Online Customer Reviews (X_2) increases the selection decision by 0.387, assuming other variables remain constant.

Table 4. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error
1	0,937	0,947	0,945	1,510

Source: Primary data processed by the researcher (2025)

The coefficient of determination test shows an R Square value of 0.947, indicating that the variables Online Customer Ratings (X_1) and Online Customer Reviews (X_2) simultaneously explain 94.7% of the variation in the Healthcare Service Selection Decision of non-BPJS patients at Lirboyo General Hospital, Kediri City. The remaining 5.3% is influenced by other factors not included in the model.

Table 5. Hypothesis Test – T Test

Variable	t-calculated	t-table	Sig.	Result
Online Customer Ratings	6,731	1,997	0,000	Diterima
Online Customer Reviews	4,660	1,997	0,000	Diterima

Source: Primary data processed by the researcher (2025)

The t-test results show that Online Customer Ratings have a positive and significant effect on the selection decision, with a t-calculated value of 6.731 greater than the t-table value of 1.997

and a significance level of $0.000 < 0.05$. Similarly, Online Customer Reviews also have a positive and significant effect, with a t-calculated value of 4.660 greater than the t-table value of 1.997 and a significance level of $0.000 < 0.05$. These findings confirm that both independent variables individually influence the selection decision, with Online Customer Ratings exerting a stronger influence than Online Customer Reviews.

Table 6. Hypothesis Test – F Test

Model	f-calculated	f-table	Sig.	Result
1	567,544	3,140	0,000	Diterima

Source: Primary data processed by the researcher (2025)

The F-test results show that the calculated F value of 567.544 is significantly higher than the F-table value of 3.140, with a significance level of $0.000 (< 0.05)$. This confirms that Online Customer Ratings and Online Customer Reviews simultaneously have a significant effect on the healthcare service selection decision, indicating that the regression model is statistically valid and fit for hypothesis testing.

Discussion and Theoretical Implications

The findings of this study reaffirm the relevance of electronic word-of-mouth (e-WOM) in the context of healthcare services. Online Customer Ratings ($\beta = 0.948$) were found to have a dominant influence on healthcare service selection decisions, consistent with signaling theory (Bafera & Kleinert, 2023). In a complex information ecosystem, star ratings serve as efficient and credible aggregate signals, enabling prospective patients to quickly assess service quality without processing large amounts of detailed information (Trenaman et al., 2023). Such signals are particularly critical for non-BPJS patients, who require greater certainty regarding service quality to minimize both financial and medical risks.

Conversely, although its contribution is relatively smaller, Online Customer Reviews ($\beta = 0.387$) remain significant and reinforce trust theory. Narrative reviews provide social proof that offers context and depth beyond what numerical ratings can convey (Handoyo, 2024). Source credibility and the strength of arguments are key elements, aligning with meta-analytic findings that digital trust heavily depends on perceptions of content authenticity and completeness (Liu et al., 2022). Detailed and authentic reviews can therefore reduce uncertainty and enhance patient confidence during the service selection process.

The coefficient of determination ($R^2 = 0.947$) demonstrates that digital reputation—through the combined influence of online ratings and reviews—is a primary determinant of healthcare service selection among non-BPJS patients at Lirboyo General Hospital. This process reflects a complementary relationship: ratings act as an initial filter, while reviews provide qualitative validation that builds deeper trust. These results are consistent with previous studies reporting that e-WOM has a positive and significant effect on consumer decision-making (Agustiniingsih & Hartati, 2023; Hariyanto & Trisunarno, 2021; Harli et al., 2021), while also opening opportunities for future research on the relationship between online information use and patient satisfaction levels.

5. Conclusion

Based on the analysis and hypothesis testing, this study concludes that online customer ratings and online customer reviews have a positive and significant influence—both individually and simultaneously—on the healthcare service selection decisions of non-BPJS patients at Lirboyo

General Hospital, Kediri City. The high coefficient of determination ($R^2 = 0.947$) demonstrates the dominant role of digital reputation in patient decision-making. Online customer ratings function as an efficient quality signal, while online reviews build trust through credible and informative narratives, highlighting the empirical synergy between Signaling Theory and Trust Theory. Managerial implications include the need to maintain consistent service quality, proactively manage online reputation, and encourage patients to provide detailed and credible reviews to strengthen prospective patients' confidence.

This study acknowledges several limitations: the cross-sectional design, which does not capture behavioral dynamics over time; a single-hospital sample, which limits generalizability; and potential self-reported data bias. Future research is recommended to conduct longitudinal and multi-location studies, integrate additional variables such as health literacy and face-to-face service quality, and explore potential mediating or moderating factors—such as patients' perceived risk—to provide a more comprehensive understanding of the impact of e-WOM in healthcare services.

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