

The Effect Of Accessibility, Interactivity And Credibility Of Digital Marketing On Patient Loyalty And Satisfaction At Makassar City Hospital

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Abstract

The development of digital technology has driven the transformation of marketing strategies in the healthcare sector, including hospitals. This study aims to analyze the influence of accessibility, interactivity, and credibility of digital marketing on patient satisfaction and loyalty in hospitals in Makassar City. The research method uses a quantitative approach with the type of explanatory research. Data was collected through the distribution of questionnaires to patients who used hospital digital services. Data analysis was carried out using the Structural Equation Modeling (SEM-PLS) approach using SmartPLS software. The results of the study show that the accessibility, interactivity, and credibility of digital marketing have a positive and significant effect on patient satisfaction. In addition, patient satisfaction has been shown to have a positive effect on patient loyalty and mediates the relationship between the three main variables and loyalty. These findings confirm the importance of optimizing credible, interactive, and accessible digital marketing strategies to improve the patient experience and strengthen the long-term relationship between hospitals and patients in the digital age.

Keywords: Accessibility; Interactivity; Credibility; Patient_Satisfaction; Digital_Marketing.

1. Introduction

The development of information and communication technology has driven transformation in various sectors, including healthcare. Digital marketing is an important strategy for hospitals to increase visibility, build relationships with patients, and increase patient satisfaction and loyalty [1].

In Makassar City, competition between hospitals is getting tighter, demanding the implementation of an effective digital marketing strategy. Aspects such as accessibility, interactivity, and credibility in digital marketing are key factors in influencing patient perception and behavior [2]. Accessibility in the context of hospital digital marketing refers to the ease of patients can access health information and services through digital platforms. According to the *Technology Acceptance Model* (TAM) theory developed by Davis (1989), the perception of perceived *ease of use* has a significant effect on a person's intention to use technology. In the context of hospitals, if digital platforms such as websites or mobile applications are designed with a user-friendly and responsive interface, then patients will be more likely to use them, which can ultimately increase their satisfaction with the services provided [3], [4].

Credibility in hospital digital marketing refers to the extent to which information conveyed through digital platforms is considered trustworthy by patients. According to *the theory of Source Credibility*, the credibility of information sources is determined by the expertise and *trustworthiness* felt by the recipient of the information. In the hospital context, the provision of

accurate medical information, transparency in services, and patient testimonials can increase credibility, which can ultimately increase patient satisfaction and loyalty.

Research by Sitepu & Kosasih (2023) shows that good service quality, including the credibility of the information conveyed, contributes significantly to patient satisfaction and loyalty.

Interactivity in digital marketing refers to the ability of digital platforms to enable two-way communication between hospitals and patients. The *Uses and Gratifications* theory states that individuals use media to meet their communication needs, including the need for interaction and feedback. In a hospital context, features such as live chat with medical personnel, discussion forums, or online scheduling systems can increase interactivity, which in turn can increase patient satisfaction and loyalty [5].

Credibility in hospital digital marketing refers to the extent to which information conveyed through digital platforms is considered trustworthy by patients. According to *the theory of Source Credibility*, the credibility of information sources is determined by the expertise and *trustworthiness* felt by the recipient of the information [6]. In the hospital context, the provision of accurate medical information, transparency in services, and patient testimonials can increase credibility, which can ultimately increase patient satisfaction and loyalty. shows that good service quality, including the credibility of the information conveyed, contributes significantly to patient satisfaction and loyalty.

Patient loyalty refers to the patient's commitment to continue using services from a particular hospital and recommending them to others. According [7] customer loyalty is formed through consistent satisfaction and a strong emotional connection with the service provider. In the context of hospitals, effective digital marketing can strengthen these relationships by providing relevant information, meaningful interactions, and reliable services. that patient satisfaction and service quality are the dominant variables that affect hospitalized patient loyalty Patient satisfaction is a subjective evaluation of patients of their experience in receiving variable services. According to *the theory of Disconfirmation of Expectations*, satisfaction occurs in the experience when it exceeds the patient's expectations. In the context of digital marketing, if a hospital's digital platform is able to meet or exceed patients' expectations in terms of accessibility, interactivity, and credibility, then patient satisfaction will increase. A study confirms that the quality of service that includes the tangible dimensions, reliability, responsiveness, assurance, and empathy has a significant effect on patient satisfaction [8]

Accessibility, interactivity, and credibility in hospital digital marketing are interrelated elements and collectively shape a positive patient experience [9]. Ease of access to information (accessibility) allows patients to obtain the information they need quickly and efficiently. Interactivity enables effective two-way communication between patients and service providers, strengthening relationships and increasing patient engagement. Meanwhile, credibility ensures that the information conveyed through digital media can be trusted, increasing patient trust in the services offered [10], [11]. These three variables synergistically contribute to increasing patient satisfaction with hospital services. This high satisfaction, in turn, strengthens patient loyalty, encouraging them to continue using the hospital's services and recommend them to others.

Furthermore, a study by Burhanuddin et al. (2024) revealed that hospital digital marketing has a significant influence on patient loyalty through the patient experience, this suggests that an effective digital marketing strategy not only increases patient satisfaction but also encourages their loyalty to hospital services [12]. However, despite empirical evidence on the influence of digital marketing on patient satisfaction and loyalty, there is still a gap in understanding how specific aspects such as accessibility, interactivity, and credibility collectively affect these two variables in the context of hospitals in Makassar City.

From the initial observations that have been observed by researchers, it has been found that the actual phenomena and problems in the Makassar City Government Hospital include Digital Accessibility Obstacles: Patients experience difficulties in accessing hospital digital services, such as online registration or service information. This is due to the lack of attention to the ease of use of digital platforms by hospitals.

Lack of Interactivity: Interaction between patients and hospitals through digital platforms is still limited. The lack of interactive features such as live chat or quick responses to patient inquiries leads to low patient engagement with hospital digital services. Credibility of Questionable Information: Patients doubt the accuracy and reliability of information provided through the hospital's digital platform. The lack of transparency and clarity of information leads to patient distrust of the services offered.

Fluctuations in Patient Visits: Data shows that the number of Government patient visits has fluctuated in recent years due to the many competitors from several private hospitals both national and international. This shows that patient loyalty to hospitals is still unstable and is influenced by various factors, including the effectiveness of digital marketing. Therefore, the researcher will conduct research to analyze

"How does accessibility, interactivity, and credibility of digital marketing affect patient loyalty and satisfaction in Makassar City hospitals.

The results of this research are expected to contribute to the development of more effective digital marketing strategies to improve the quality of services and long-term relationships. Accessibility, interactivity, and credibility in digital marketing are intertwined and the same variables shape the patient experience that affects their satisfaction and loyalty to the hospital. Therefore, these three variables are worth analyzing simultaneously in the study to gain a comprehensive understanding of the influence of digital marketing on patient behavior.

2. Methodology

2.1. Types of Research

The type of research used in this study using quantitative methods aims to collect and analyze data. This research focuses on more objective measurements, data collection in the form of numbers, and statistical analysis to find significant patterns or relationships between the variables studied.

2.2. Research Approach

In this study, the approach used by the author is quantitative research and uses statistical formulas to analyze the data obtained.

According to [13] a quantitative approach is a research approach that uses numerical data to measure variables and test hypotheses through statistical analysis. This approach aims to identify relationships between variables, measure the prevalence of a phenomenon, or test theories in a broader context.

2.3. Population and sample

According to [14] population is an object or subject that is set to be studied and drawn conclusions, which have certain characteristic qualities. The population in this study is 100 patient respondents who visit the hospital and the number is not yet known. The population in this study is patients who come to the Government Hospital in Makassar City which is also an object of observation. Population suppression is expected to be able to present a larger population, so that the results of the research can be generalized well. The sample in this study used is the **Moe Formula (margin of error)** in (Jogiyanto, & Abdillah 2023).

The following researchers use the Moe formula:

$$n = \frac{z^2}{4(Moe)^2}$$

Where:

n = number of samples

z = the level of confidence required in determining the number of samples is 95% which refers to the Z table. 95% = 1.96 Moe = *margin of error*

By using the Moe formula, the following results will be obtained:

$$\begin{aligned}n &= \frac{1,96^2}{4(Moe)^2} \\n &= \frac{1,96^2}{4(0,1)^2} \\n &= \frac{3,842}{4 \cdot (0,01)} \\n &= \frac{3,842}{0,04} \\n &= 96,04\end{aligned}$$

Using the formula above, the study was carried out by distributing a questionnaire to 100 respondents as a sample which is a sufficiency of the results of 96.04 people.

2.4. Data Collection Techniques

The data collection technique in this study is carried out in several ways as follows:

1. Questionnaire (questionnaire) is a data collection technique by providing a series of questions that have been systematically prepared to be answered by respondents, which is a benchmark in obtaining valid and reliable data through google forms

2. Interviews are data collection techniques that are carried out using platforms such as by distributing questionnaires through google forms with resource persons to dig deeper information about the problems in this study.
3. Documentation is one of the data collection techniques that is carried out directly by filling in questionnaire answers as one of the data used to complete this research.

2.5. Operasional Variabel

To explain the variables referred to in this study, so that the importance of the definition of each variable as an effort to understand in the research. Operational definition is an explanation that provides the limitations or meaning of a variable in research. Operational definitions are used to equalize the meaning between researchers and research readers. Consider equivalent variables, collect data correctly, avoid errors in the determination of research instruments, avoid inconsistent researcher questions

2.6. Operational Definition of Procedures

N0.	VARIABEL	DEFENISI	INDIKATOR	SKALA
1.	Accessibility (X1)	Accessibility in healthcare refers to the ease with which patients can access and utilize healthcare facilities, including factors such as location, transportation, and operating hours in accessing healthcare facilities,	<ol style="list-style-type: none"> 1. Availability of public transportation to health facilities 2. Travel time to health facilities 3. Flexible hours of operation 4. Ease of registration and payment 	Likert
2.	Interactivity (X2)	Interactivity in the context of digital healthcare refers to the extent to which a system or platform enables two-way communication between patients and service providers, including responsiveness and user engagement	<ol style="list-style-type: none"> 1. Speed of response to patient inquiries 2. Availability of online chat or consultation features 3. Easy navigation on apps or websites 4. Personalize information based on patient needs 	Likert
3.	Digital Marketing Credibility (X3)	Digital marketing credibility refers to the level of consumer trust in information and promotions delivered through digital media by an organization or company.	<ol style="list-style-type: none"> 1. Accuracy and reliability of the information conveyed 2. Transparency in conveying terms and conditions 3. Reputation and trust in digital information sources 4. Consistency of messaging across digital platforms 	Likert
4.	Patient Loyalty (Y1)	Patient loyalty is the patient's loyalty to continue using a healthcare service from a facility	<ol style="list-style-type: none"> 1. Frequency of repeat visits to the same health facility 	Likert

		or service provider, as well as the tendency to recommend those services to others.	<ol style="list-style-type: none"> 2. Tendency to recommend services to others 3. Reluctance to switch to another service provider 4. Participation in programs offered by service providers 	
5.	Patient Satisfaction (Y2)	Patient satisfaction is the level of feeling happy or satisfied felt by a patient as a result of a healthcare experience that meets or exceeds their expectations.	<ol style="list-style-type: none"> 1. Quality of medical and non-medical services 2. Service waiting time 3. Clarity and effectiveness of communication between patients and service providers 4. Fulfillment of patients' expectations for the services provided 	Likert

2.7. Validation and Reliability

According to [14] a validity test is a process to measure whether a questionnaire is valid or not. The validity test can also be interpreted as the level of accuracy between the data that occurs in the research object and the data reported by the researcher. to measure validity, uses the moment product correlation formula (moment) product correlation, Pearson correlation), the formula is:

1. R_{xy} = correlation coefficient of number of question items
2. n = number of samples
3. X = Score each question item
4. Y = Total score
5. $\sum x$ = Total item score
6. $\sum y$ = Total score sum (all items)

In the validity test, if the significant value is more than 0.05, the statement items of the variables are declared valid. A reliability test is a tool to measure the extent to which measurement results remain consistent if they are repeated using the same object. the reliability test is the extent to which the measurement results using the same object will produce data. The reliability test is carried out after the validity test and is tested as a valid question or question. Reliability testing uses **Cronbach's Alpha formula**. The high and low reliability is indicated by the value of the reliability coefficient. The reliability criterion is that if the $\alpha > 0.7$, it means that the reliability is sufficient. If the α is greater than 0.80 this suggests all items are reliable. If the α is between 0.70 to 0.90 then the reliability is high. If the α is 0.50 to 0.70 then the reliability is moderate. If the α is less than 0.50 then the reliability is low [14]

2.8. Data Analysis Techniques

Data analysis techniques used by researchers in managing data, In managing research data, there are various analysis techniques used to process, interpret, and infer information from the data that has been collected. This analysis technique depends on the type of data available (quantitative or qualitative) as well as the purpose of the research. In managing quantitative data, researchers use statistical descriptive analysis Used to describe or summarize data, such as calculating averages, medians, standard deviations, and frequency distributions Inferential analysis aims to test hypotheses, estimate population parameters, and predict relationships between variables. In other words, inferential analysis helps researchers to draw broader conclusions from the sample obtained to describe the characteristics of a larger population.

In this study, descriptive analysis was carried out using SmartPLS analysis

1. PLS (Partiel least Squares) Analysis Method

Partial least Square (PLS) method A data analysis method used to test the relationship between independent variables and dependent variables. PLS is an alternative approach to the Structural Equation Modeling (SEM) method based on covarin, and is more important in prediction models.

PLS is an analysis model that is classified as Structural Equation Modeling (SEM) which is very effective because it can be used at various data scales, does not require certain assumptions, and does not require large samples.

The SmartPLS **statistical analysis method** is a very useful tool for the analysis of complex structural models, both in scientific research and practical applications. By using the Partial Least Squares algorithm, SmartPLS can overcome various challenges in data analysis, such as unnormally distributed data and small sample sizes. A good understanding of the techniques in SmartPLS including measurement models, structural models, and model quality evaluation will greatly help researchers in obtaining valid and useful results, SmartPLS is **software used for** Structural Equation Modeling (SEM) analysis based on **Partial Least Squares (PLS)**. SmartPLS is particularly useful for complex data analysis, especially when researchers are working with latent variables and interconnected indicator variables in models that do not necessarily meet the assumption of normality. Ghozali (2023) explained that SmartPLS is very popular among researchers because of its ability to handle data with smaller sample sizes, as well as the flexibility to build models involving latent variables and observed variables.

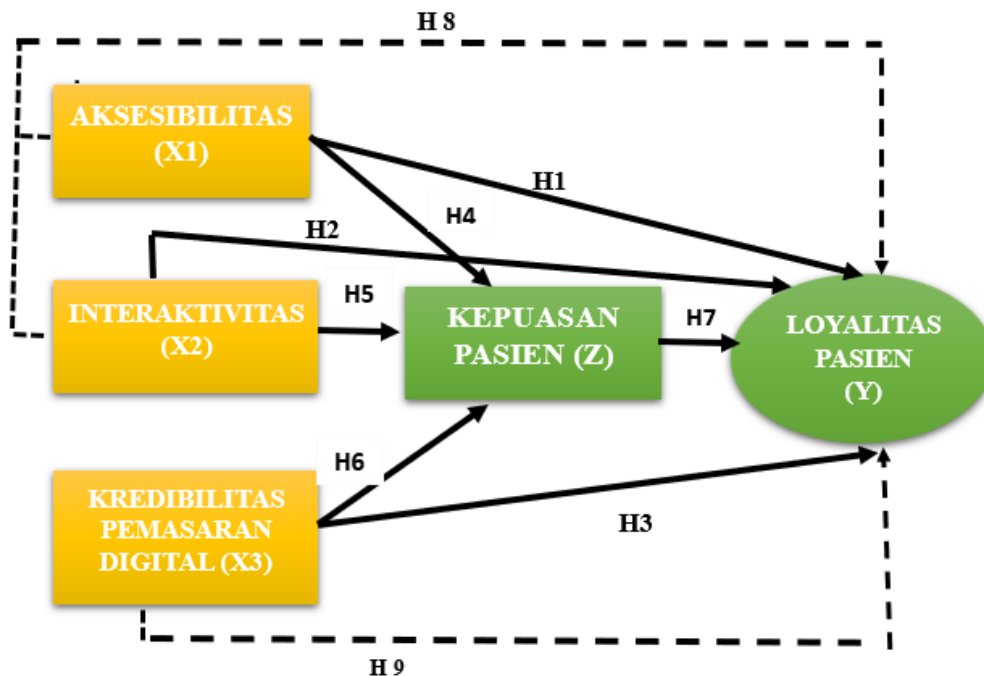
2. Outer model analysis

In the outer analysis, this model is a model used to assess the validity and reliability of a data. The outer model test aims to specify the relationship between latent variables and their indicators. In general, **external model analysis** according to **Hair, J. F., et.al** (2023) is related to testing the extent to which indicators in a measurement model can reflect or form latent variables. Careful evaluation of convergent validity, discriminant validity, reliability, and

indicator significance is essential to ensure model quality and reliability of analysis results in studies using PLS or SmartPLS 3.3. Kotler also emphasized that it is important to choose the right model, both reflective and formative, according to the objectives and characteristics of the research. [14]

3. Model Struktural (*Inner Model*)

In the research examination, it is completed by assessing each research variable. This inner model is used to predict the cause-and-effect relationship (causality) between latent variables. Latent variables are variables that cannot be measured directly. According to [15] that the inner model is one of the components in the Structural Equation Modeling (SEM) approach that focuses on the relationship between latent variables (variables that cannot be measured directly). In the context of SEM, the inner model refers to the cause-and-effect relationship between latent variables present in the research model. To explain that in the inner model, there are two types of relationships that are commonly analyzed, including **Causal Relationship** Latent variables where one affects other latent variables. This relationship describes the cause and effect between the constructs in the model. While **Correlational Relationship** One latent variable is related or correlated with another latent variable, but there is no direct cause-and-effect relationship



3. Result and Discussion

3.1. Result

Respondent overview

This study involved 100 respondents who were patients of Makassar City Hospital. The selection of respondents was carried out by purposive sampling technique, which is only

patients who have used hospital services and are considered to have adequate experience to assess the quality of service. Respondents came from a variety of gender, age, education level, and frequency of visits. These characteristics are important to provide an overview of the research sample and ensure that respondents' perceptions of accessibility, interactivity, digital marketing credibility, patient satisfaction, and loyalty reflect the actual condition of hospital service users.

Table 1. Description of the respondent

Karakteristik	Kategori	Jumlah (n)	Persentase (%)
Jenis Kelamin	Laki-laki	45	45%
	Perempuan	55	55%
Usia	< 20 tahun	10	10%
	21–30 tahun	25	25%
	31–40 tahun	28	28%
	41–50 tahun	22	22%
	≥ 51 tahun	15	15%
	Pendidikan	SD/Sederajat	8
	SMP/Sederajat	12	12,0
	SMA/Sederajat	40	40,0
	Diploma/S1	30	30,0
	S2 ke atas	10	10,0
Frekuensi Kunjungan	1–2 kali	30	30,0
	3–4 kali	40	40,0
	>4 kali	30	30,0

Uji Measurement Model / Outer Model

The measurement model test was carried out to determine the validity and reliability of the research construct. An indicator is declared valid if it has an outer loading value of > 0.70 . Based on the results of the analysis, all indicators from the variables Accessibility (X1), Interactivity (X2), Digital Marketing Credibility (X3), Patient Satisfaction (Z), and Patient Loyalty (Y) have an outer loading value above 0.70, which ranges from 0.716 to 0.921, so that all indicators are declared valid.

Furthermore, the reliability of the construct was tested through Cronbach's Alpha (α) and Composite Reliability (CR). The model is said to be reliable if the $\alpha >$ value is 0.60 and the CR is > 0.70 . The results of the analysis showed that the α value was in the range of 0.779 to 0.909, while the CR value ranged from 0.856 to 0.935. This shows that the entire construct has met the reliability criteria.

The convergent validity was tested through Average Variance Extracted (AVE) with a condition of > 0.50 . The results showed that the entire construct had an AVE value between 0.599 to 0.782, so that the convergent validity could be said to have been achieved.

Tabel 2. Uji Measurement Model / Outer Model

Variabel	Item	λ	α	CR	AVE
X1 – Aksesibilitas	AB1	0.837	0.871	0.912	0.721
	AB2	0.851			
	AB3	0.868			
	AB4	0.839			
X2 – Interaktivitas	IK1	0.836	0.852	0.900	0.693
	IK2	0.857			
	IK3	0.896			
	IK4	0.734			
X3 – Kredibilitas Pemasaran Digital	KD1	0.868	0.909	0.935	0.782
	KD2	0.916			
	KD3	0.921			
	KD4	0.829			
Z – Kepuasan Pasien	KP1	0.805	0.779	0.856	0.599
	KP2	0.837			
	KP3	0.716			
	KP4	0.732			
Y – Loyalitas Pasien	LP1	0.832	0.870	0.910	0.718
	LP2	0.882			
	LP3	0.851			
	LP4	0.882			

Remarks: AB = Accessibility, IK = Interactivity, KD = Digital Marketing Credibility, KP = Patient Satisfaction, LP = Patient Loyalty.

Source: Author 2025

In addition to convergent validity, testing is also carried out on discriminant validity. One way to assess discriminant validity is to use the Fornell-Larcker criterion, which is to compare the square root value of Average Variance Extracted (AVE) (shown diagonally) with the correlation value between constructs (off-diagonal).

Tabel 3 Discriminant Validity

Konstruk	AB	IK	KP	KD	LP
AB	0.849				
IK	0.851	0.833			
KP	0.730	0.695	0.774		
KD	-0.040	0.039	-0.042	0.884	
LP	0.841	0.838	0.803	-0.123	0.847

Remarks: AB = Accessibility, IK = Interactivity, KD = Digital Marketing Credibility, KP = Patient Satisfaction, LP = Patient Loyalty.

Source: Author 2025

Uji Hypothesis

Hypothesis testing was carried out using the SEM-PLS method, as shown in Table 4. The value of β (Original Sample/O) indicates the direction of the relationship between variables, where most of the relationships are positive, except for the $X3 \rightarrow Z$ and $X3 \rightarrow Y$ paths which are negative. The T-Statistic value indicates the strength of the relationship, while the P-Value determines the level of significance. A relationship is said to be significant if it has a T value of > 1.96 and a P-Value of < 0.05 .

Based on the results of the analysis, there are two hypotheses that are rejected, namely the relationship between $X3 \rightarrow Z$ ($P = 0.757$) and $X3 \rightarrow Y$ ($P = 0.053$) because the value exceeds the significance limit of 0.05. Meanwhile, other pathways were declared accepted because they had a P value of < 0.05 and a T-Statistic > 1.96 .

These results show that Accessibility (X1) and Interactivity (X2) play a significant role in increasing Patient Satisfaction (Z) and Patient Loyalty (Y). In addition, Patient Satisfaction (Z) also has a positive and significant influence on Patient Loyalty (Y). However, Digital Marketing Credibility (X3) has not been shown to have a significant effect on both Patient Satisfaction (Z) and Patient Loyalty (Y).

Table 4. Hypothesis Test (Direct Effect)

Hipotesis	Hubungan	β	T-Statistic	P-Value	Keterangan
H1	AB \rightarrow LP	0,261	3,361	0,001	Diterima
H2	IK \rightarrow LP	0,384	5,307	0,000	Diterima
H3	KD \rightarrow LP	-0,114	1,939	0,053	Ditolak
H4	AB \rightarrow KP	0,494	4,494	0,000	Diterima
H5	IK \rightarrow KP	0,276	2,521	0,012	Diterima
H6	KD \rightarrow KP	-0,033	0,309	0,757	Ditolak
H7	KP \rightarrow LP	0,341	5,145	0,000	Diterima
H8	AB \rightarrow KP \rightarrow LP	0,168	3,306	0,001	Diterima
H9	IK \rightarrow KP \rightarrow LP	0,094	2,323	0,021	Diterima
H10	KD \rightarrow KP \rightarrow LP	-0,011	0,307	0,759	Ditolak

Remarks: AB = Accessibility, IK = Interactivity, KD = Digital Marketing Credibility, KP = Patient Satisfaction, LP = Patient Loyalty.

Source: Author 2025

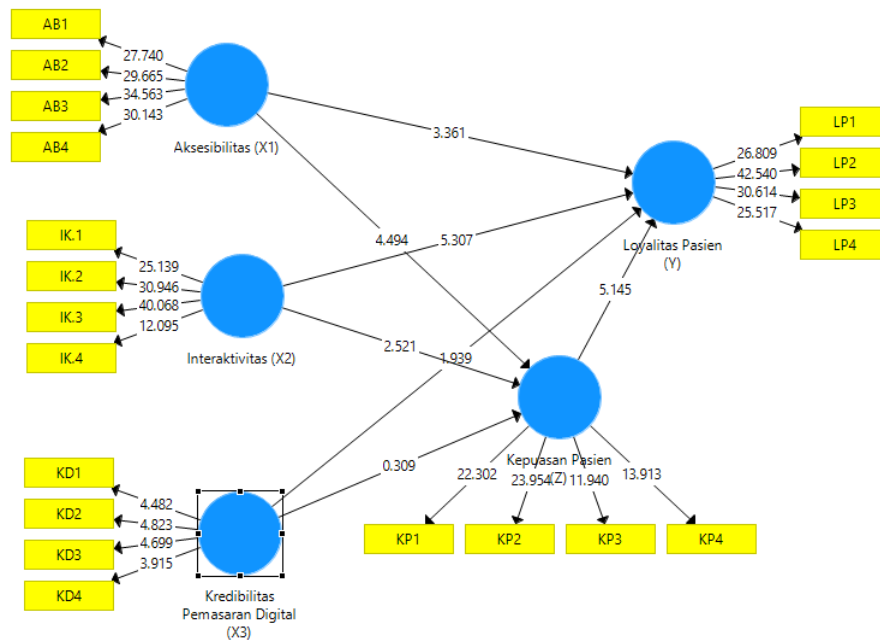


Figure 2. SEM Analysis Results

3.2. Discussion

The results of the SEM-PLS analysis showed that the variables Accessibility (X1), Interactivity (X2), Digital Marketing Credibility (X3), Patient Satisfaction (Z), and Patient Loyalty (Y) had different influences on the relationships tested. Statistically, some pathways show significant influence, while others do not, as shown by β , T-Statistic, and P-Value values.

First, Accessibility (X1) has a positive and significant effect on Patient Satisfaction (Z) with a path coefficient of $\beta = 0.494$, T-Statistic = 4.494, and P-Value = 0.000. This means that the better the accessibility of digital services provided by hospitals (for example, ease of access to information, access to online registration, or the availability of digital services), the higher patient satisfaction.

In addition, Accessibility also had a significant effect on Patient Loyalty (Y) with $\beta = 0.261$, T-Statistic = 3.361, and P-Value = 0.001. These findings confirm that good accessibility not only increases satisfaction, but also encourages patients to remain loyal to using hospital services. These results are consistent with previous research that emphasizes the importance of digital-based healthcare access in improving the patient experience.

Second, Interactivity (X2) has been shown to have a positive and significant effect on Patient Satisfaction (Z) ($\beta = 0.276$; T-Statistic = 2,521; P-Value = 0.012). This shows that the more interactive the hospital is in delivering digital services (e.g. through two-way communication, online consultations, or quick responses to patient questions), the higher the level of patient satisfaction.

Interactivity also had a significant positive effect on Patient Loyalty (Y) ($\beta = 0.384$; T-Statistic = 5,307; P-Value = 0.000). Thus, the higher the interaction that is

built between the hospital and the patient, the more likely the patient is to continue to choose the hospital in the future.

Third, Digital Marketing Credibility (X3) had no significant effect on Patient Satisfaction (Z) with $\beta = -0.033$, T-Statistic = 0.309, and P-Value = 0.757. These results show that although the information conveyed through digital marketing is considered credible, it is not strong enough to directly affect patient satisfaction.

Similarly, the effect of Digital Marketing Credibility on Patient Loyalty (Y) was also not significant ($\beta = -0.114$; T-Statistic = 1,939; P-Value = 0.053). This indicates that patients value the experience more through the accessibility and interactivity of the service, rather than just the credibility of marketing information.

Fourth, Patient Satisfaction (Z) has been proven to have a positive and significant effect on Patient Loyalty (Y) with $\beta = 0.341$, T-Statistic = 5.145, and P-Value = 0.000. This means that the more satisfied the patient is with the services received, the higher their level of loyalty to continue using hospital services.

The results of the mediation test showed that:

1. Accessibility (X1) \rightarrow Satisfaction (Z) \rightarrow Loyalty (Y) had a significant effect with $\beta = 0.168$; T-Statistic = 3,306; P-Value = 0.001. This means that patient satisfaction mediates the relationship between accessibility and patient loyalty.
2. Interactivity (X2) \rightarrow Satisfaction (Z) \rightarrow Loyalty (Y) were also significant ($\beta = 0.094$; T-Statistic = 2,323; P-value = 0.021). This confirms that interactivity affects loyalty through patient satisfaction.
3. In contrast, Digital Marketing Credibility (X3) \rightarrow Satisfaction (Z) \rightarrow Loyalty (Y) were insignificant ($\beta = -0.011$; T-Statistic = 0.307; P-Value = 0.759).

Overall, the results of this study show that Accessibility and Interactivity are key factors that can increase patient satisfaction and loyalty. On the other hand, Digital Marketing Credibility has not played a significant role, either directly or indirectly.

Thus, hospitals in Makassar City need to prioritize strengthening accessibility and interactivity in digital services, such as providing easy-to-use online registration applications, online doctor consultations, and quick response information services. Meanwhile, even though the credibility of digital marketing is not significant in this study, it is still necessary to pay attention to maintaining the image of the hospital so that it is still trusted by the public.

4. Conclusion

The results of this study show that accessibility (X1) and interactivity (X2) have a positive and significant effect on patient satisfaction (Z) and patient loyalty (Y), which means that the easier hospital services are accessed and the more interactive communication is established, the higher the level of patient satisfaction and loyalty. Patient satisfaction has been shown to be a mediating variable that strengthens the influence of accessibility and interactivity on patient loyalty, although the indirect influence of accessibility through satisfaction is more dominant than interactivity. In contrast, digital marketing credibility (X3) did not have a significant influence on both patient satisfaction

and loyalty, indicating that patients placed more emphasis on real experiences in hospital services than just paying attention to the image or credibility of the digital promotions being carried out. Overall, this study confirms that the quality of access and direct interaction are key factors in building patient satisfaction and loyalty at Makassar City hospitals, while digital marketing credibility has not yet become the main determining factor.

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6. Reference

- [1] A. Francesca Chandra and M. Nadjib, "Digital Marketing in The Hospital: A Scoping Review," *Journal of World Science*, vol. 2, no. 1, pp. 46–51, Jan. 2023, doi: 10.58344/jws.v2i1.178.
- [2] S. Agarwal, "INFLUENCE OF DIGITAL MARKETING STRATEGIES ON CONSUMER ENGAGEMENT IN THE HEALTHCARE INDUSTRY," *ShodhKosh: Journal of Visual and Performing Arts*, vol. 5, no. 2, Feb. 2024, doi: 10.29121/shodhkosh.v5.i2.2024.3281.
- [3] J.-C. Tu, S. C. Luo, Y.-L. Lee, M.-F. Shih, and S.-P. Chiu, "Exploring Usability and Patient Attitude towards a Smart Hospital Service with the Technology Acceptance Model," *Int. J. Environ. Res. Public Health*, vol. 19, no. 10, p. 6059, May 2022, doi: 10.3390/ijerph19106059.
- [4] A. Kayserili and B. Sançar, "Evaluation of Acceptance of Hospital Information Management System Among Nurses Through Technology Acceptance Model," *Eurasian Journal of Health Technology Assessment*, vol. 8, no. 2, pp. 99–118, Jan. 2025, doi: 10.52148/ehta.1520164.
- [5] Md. A. Hossain, M. Kim, and N. Jahan, "Can 'Liking' Behavior Lead to Usage Intention on Facebook? Uses and Gratification Theory Perspective," *Sustainability*, vol. 11, no. 4, p. 1166, Feb. 2019, doi: 10.3390/su11041166.
- [6] O. Roth-Cohen, S. Levy, and A. Zigdon, "The Mediated Role of Credibility on Information Sources and Patient Awareness toward Patient Rights," *Int. J. Environ. Res. Public Health*, vol. 18, no. 16, p. 8628, Aug. 2021, doi: 10.3390/ijerph18168628.
- [7] S. Magatef, M. Al-Okaily, L. Ashour, and T. Abuhussein, "The impact of electronic customer relationship management strategies on customer loyalty: A mediated model," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 9, no. 4, p. 100149, Dec. 2023, doi: 10.1016/J.JOITMC.2023.100149.
- [8] M. Pakurár, H. Haddad, J. Nagy, J. Popp, and J. Oláh, "The Service Quality Dimensions that Affect Customer Satisfaction in the Jordanian Banking Sector," *Sustainability*, vol. 11, no. 4, p. 1113, Feb. 2019, doi: 10.3390/su11041113.
- [9] T. Wang, H. Zhu, S. Qian, G. Giunti, R. Goossens, and M. Melles, "Designing digital patient experiences: The digital health design framework," *Appl. Ergon.*, vol. 119, p. 104289, Sep. 2024, doi: 10.1016/J.APERGO.2024.104289.

- [10] C. Mennella, U. Maniscalco, G. De Pietro, and M. Esposito, "Ethical and regulatory challenges of AI technologies in healthcare: A narrative review," *Heliyon*, vol. 10, no. 4, p. e26297, Feb. 2024, doi: 10.1016/J.HELIYON.2024.E26297.
- [11] I. Priescu and I. Oncioiu, "Measuring the Impact of Virtual Communities on the Intention to Use Telemedicine Services," *Healthcare*, vol. 10, no. 9, p. 1685, Sep. 2022, doi: 10.3390/healthcare10091685.
- [12] N. Burhanuddin, S. A. Pasinringi, R. Amiruddin, D. Rizki Nurmala, and A. Mallongi, "The Influence of Hospital Digital Marketing on Patient Loyalty through Patient Experience: A Study of Hospitals in Makassar," 2025. [Online]. Available: <https://www.jneonatalurg.com>
- [13] D. Huyler and C. M. McGill, "Book Review: Research Design: Qualitative, Quantitative, and Mixed Methods Approaches Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, by Creswell John and Creswell J. David. Thousand Oaks, CA: Sage Publication, Inc. 275 pages, \$67.00 (Paperback).," *New Horizons in Adult Education and Human Resource Development*, vol. 31, no. 3, pp. 75–77, Jun. 2019, doi: 10.1002/nha3.20258.
- [14] J. Hair and A. Alamer, "Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example," *Research Methods in Applied Linguistics*, vol. 1, no. 3, p. 100027, Dec. 2022, doi: 10.1016/J.RMAL.2022.100027.
- [15] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," Jan. 14, 2019, *Emerald Group Publishing Ltd.* doi: 10.1108/EBR-11-2018-0203.