Strategies to increase patient loyalty through the implementation of terra service quality

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A R T I C L E I N F O	ABSTRACT
	The purpose of this study is to examine the effect of TERRA service quality, and its impact on loyalty, and its implementation based on the theory of planned behavior. The reason why researchers chose service quality measured using the TERRA Formulation is because the TERRA Formulation is very easy to implement at a practical level, and can more accurately measure the needs of companies in the field, compared to other service quality formulations. This type of research is quantitative, with the main data source in the form of a questionnaire, which will be analyzed using SEM PLS. the formation of the service process, which will increase the loyalty index measured by the TERRA service quality dimensions. The results showed that Tangibel, Emphaty, Reliability, Responsiveness and Assurance have a positive effect on Loyalty. From the results of the analysis, it can be concluded that there are positive results between the dimensions of TERRA service quality on loyalty, and the dimensions of TERRA service quality are able to confirm the theory of planned behavior that has an impact on loyalty.

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1.   INTRODUCTION

Customer satisfaction is a subjective value of the quality of service provided. Subjectivity still has an objective basis, meaning that judgment is also based on previous experience, education, psychological conditions and environmental influences at that time. But based on the truth and existing objective statements, not only to make bad decisions when there is no disturbing experience, but also to say good when there is no comfortable atmosphere (Kotler, 2016). Business actors are required to compete competitively and improve marketing strategies in achieving company goals and understanding market conditions and consumer desires company goals and understand market conditions and consumer desires (Suhardi, 2021). Business people must prepare a strategy in order to please and build a sense of enthusiasm of consumers in consuming products and services, so that it will make consumers/customers impressed. Impressed (Wibowo & Khuzaini, 2020). Finally, consumers tend to consider the suitability of the products offered as well as the services provided that are believed to be in accordance with what is offered by the seller (Sumadi et al., 2021).

Athanassopoulos et al., (2001) in their study, suggested that service quality and all its dimensions such as physical evidence, reliability, assurance and empathy have a significant and positive relationship with patient satisfaction and loyalty to financial service provider organizations.

Whereas (Parijskij, 2005) stated that, the only finding that is not in accordance with previous literature is the insignificant association of reliability with patient satisfaction and this may be due to several reasons i.e. many previous studies on this construct have been conducted in developed countries while we conducted this research study in a developing country where the concept of service and service quality is completely different from developed countries. In contrast to research (Aliyah et al., 2022), showing that service quality does not have a significant effect on loyalty.

Timo et al., (2019) suggest that product quality and service quality are very good at determining patient satisfaction. Innovation and the right strategy must be continuously improved in order to create patient satisfaction and loyalty. In contrast to (Kasiri et al., 2017), who argue that satisfaction is: (1) the integration of standardization and customization of service offerings is very important to improve service quality; (2) standardization has a higher impact on service quality when compared to customization; (3) functional quality has a higher impact on patient satisfaction when compared to technical quality; and (4) patient satisfaction has a significant effect on patient loyalty. The results of this study are in line with research (Ansori & Andjarwati, 2022) (Azzaida & Suzanawaty, 2022) (Madyaratri & Andjarwati, 2021) showing that service quality has a positive and significant effect on loyalty.

This research tries to explore the implementation of strategies through service quality formulation, as measured by TERRA (Tangible, Emphaty, Reliability, Responsiveness, and Asssurance). This strategy was chosen, based on its usefulness and benefits which can be strengthened by the Theory of Planned Behavior. The TERRA formulation is very easy to implement at a practical level, and can more accurately measure the needs of companies in the field compared to other service quality formulations. The novelty of this research is that it uses a different research approach, using the SEM PLS analysis tool, which is more relevant, and reliable because it eliminates unnecessary error data, so that it has an impact on research results that are more accountable. In addition, by using the basis of theory of planned behavior, as a "scalpel" in this study, it will be able to attract readers, and/or other researchers, as a basis for developing more comprehensive research in the future, especially research on optimizing loyalty with the TERRA formulation.

This research is included in the type of explanatory research. According to (Sugiyono, 2018) explanatory research is research that has the aim of testing previously formulated hypotheses and the results of the study will explain the causal relationship between variables. The data and information collection technique used by the author in this research is field research (Field Research), where data is obtained by giving questionnaires/questionnaires directly to respondents.

The data analysis method used in this research is the PLS (Partial Least Square) Analysis method with the help of the SmartPLS version3.0 application. PLS is a set of powerful analytical methods, commonly referred to as soft modeling because it does not use OLS (ordinary least squares) regression assumptions, such as data must be multivariate normally distributed and there is no multicollinearities problem between exogenous variables (Ghozali, 2015).

Based on the research background, the problem formulation that must be answered in this study is to test whether the TERRA service quality dimensions affect loyalty, and whether the TERRA service quality dimensions are able to confirm the theory of planned behavior which has an impact on loyalty?

2. RESEARCH METHOD

The type of research according to the level of explanation is oriented towards the position or position of the research variables. This research is included in the type of explanatory research. According to (Sugiyono, 2018) explanatory research is research that has the aim of testing previously formulated hypotheses and the results of the study will explain the causal relationship between variables. Because in this study the population is less than 100, the sampling technique used is census sampling, so the entire population is sampled, namely 30 respondents.

In meeting the objectives of the study, namely to test whether the dimensions of TERRA service quality affect loyalty, and whether the dimensions of TERRA service quality are able to confirm the theory of planned behavior which has an impact on loyalty, this research is included in the type of

explanatory research. The technique of collecting data and information is field research. The data obtained will be analyzed using the help of the SmartPLS version 3.0 application.

PLS is a set of powerful analytical methods, commonly referred to as soft modeling because it does not use OLS (ordinary least squares) regression assumptions, such as data must be multivariate normally distributed and there is no problem of multicollinearities between exogenous variables (Ghozali, 2015). The measurement model in this study includes the Outer Model and Inner Model, with tests including: Convergent Validity, Discriminant Validity, Average Variance Extracted (AVE), Composite Reliability, and Inner model analysis. The research model is a representative image of interconnected concepts and is shown through pictures and arrows as a form of relationship between independent and dependent variables. The form of this research model is as follows:
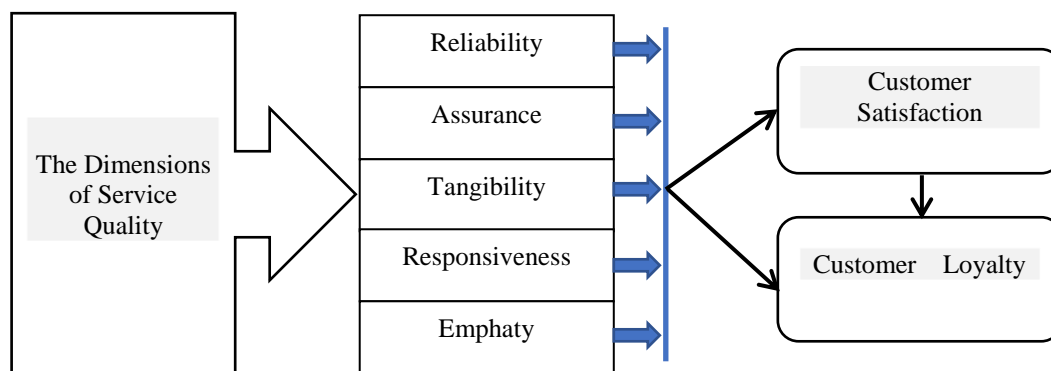

Figure 1. Effects of TERRA Dimensions on Customer Loyalty

3. RESULTS AND DISCUSSIONS
Results of Analysis of Exogenous Variables.
The exogenous variable in this study is TERRA Service Quality (X1). The results of descriptive analysis of exogenous variables are as follows:
Based on the data collected, the answers from respondents have been recapitulated and then analyzed to determine the descriptive of each variable. This respondent's assessment is based on criteria with the lowest assessment score being 1 and the highest assessment score being 5.
Interval = (5-1) / 5 = 0.80
So that the assessment limits for each variable are obtained as follows:

       1.00 - 1.80 = Very Low
       1.81 - 2.60 = Low
       2.61 - 3.40 = Medium
       3.41 - 4.20 = High
       4.21 - 5.00 = Very High

Table 1. Results of Analysis of Service Quality Variables (X1)

Kode	Item Indikator	Mean	Kriteria
X1.1	*Assurance.3* (Medical personnel serve with a reassuring attitude so that patients feel safe)	1.733	Very Low
X1.2	*Emphaty.2* (medical staff pay close attention to patients)	2.167	Low
X1.3	*Reliability.2* (reliable nursing skills)	2.167	Low
X1.4	*Responsiveness.2* (the presence of nurses who accept and serve well)	2.333	Low
X1.5	*Tangibility.2 (*well-equipped medical equipment)	2.760	Medium
	Tangibility.3 (Hospital medical personnel and employees are neat and clean.)	2.760	Medium
	Total Average	2.320	Low

Referring to the results of the descriptive assessment, it shows that the recapitulation of answers from the service quality variable. Based on the analysis results shown that, the average (mean)

respondent's assessment of the TERRA Service Quality variable of 2.320 is included in the Low criteria. From the above assessment, respondents agree that the quality of patient service is not the only variable that can be the benchmark for decisions in determining loyalty.

Endogenous Variable Analysis Results.
Based on the data collected, the answers from respondents have been recapitulated and then analyzed to determine the descriptive of each variable. This respondent's assessment is based on criteria with the lowest assessment score being 1 and the highest assessment score being 5.
Interval = (5-1) / 5 = 0.80
So that the assessment limits for each variable are obtained as follows:

       1.00 - 1.80 = Very Low
       1.81 - 2.60 = Low
       2.61 - 3.40 = Medium
       3.41 - 4.20 = High
       4.21 - 5.00 = Very High

The endogenous variable in this study is Loyalty (Y). The results of descriptive analysis of endogenous variables are as follows:

Table 2. Results of Analysis of Loyalty (Y)

Kode	Item Indikator	Mean	Kriteria
Y1.1	satisfied and will be loyal to the services obtained at the hospital.	2.000	Very Low
Y2.1	loyal to use health services in hospitals	1.700	Very Low
Y2.2	will not switch to using health facilities in other hospitals, other than those in this hospital	1.833	Very Low
Y2.3	I will continue to refer the total health services in the hospital to other people I meet.	1.800	Very Low
	Total Average	1.833	Very Low

Referring to the results of the descriptive assessment, it shows that the recapitulation of answers from the loyalty variable. Based on the results of the descriptive analysis, the table above shows that respondents assess the quality and loyalty variables have an average value of 1,833 with very low criteria. From this average assessment, respondents agree that an important satisfaction perspective is used as a parameter for planning patient loyalty in the future.

Evaluation of Measurement Model.
Convergent validity is measured using the outer loading parameter. Individual reflexive measures can be said to correlate if they have a value of more than 0.5 with the construct to be measured. The following are the results of the outer model test to show the outer loading value using the SmartPLS analysis tool.
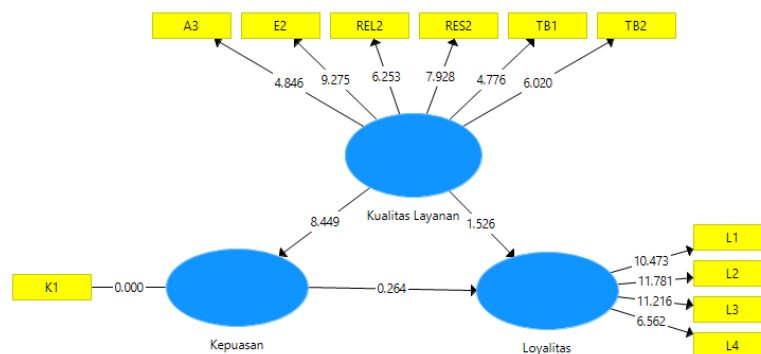

Figure 2. Outer Model Test Results

To be able to see more clearly the loading factor value, the indicator construct data for each variable is presented in the following:

Table 3. Results of Outer Loading Convergent Validity

Variable	AVE	Outer Loading
Service Quality	0,640	0,730
Loyalty	0,882	0,939

In accordance with the table above, it can be seen that the indicator value has an outer loading value>0.7. There are no variable indicators whose outer loading value is below 0.7 so that they are declared feasible or valid for use as research.

Evaluation of the Measurement Model.
The discriminant validity test uses the cross loading value parameter. To fulfill discriminant validity if the cross loading value of the indicator on the variable is the largest when compared to other variables. Based on the test results, it is found that each indicator item has the largest cross loading value compared to the cross loading value on other variables. The indicators used in this study have good discriminant validity. The following is the cross loading factor value:

Table 4. Results of Cross Loading Factor Validity

Variable	Construct	Convergent Validity
Service Quality	A3	0,772
	E2	0,758
	REL2	0,785
	RES2	0,880
	TB1	0,947
	TB2	0,961
Loyalty	L1	0,981
	L2	0,947
	L3	0,937
	L4	0,890

Based on the table above, the cross loading value for each construct has a higher value than other constructs. This shows that the manifest variables in this study have accurately explained the latent variables and prove that all items are valid.

Composite Reliability.
Reliability test is conducted to prove the accuracy, consistency and accuracy of the instrument in measuring a construct. In PLS - SEM using SmartPLS, measuring the reliability of a construct can be done in several ways, namely with R Square, AVE, Q2, and GoF. The results of the R Square, AVE, Q2, and GoF indices can be seen in the following table:

Table 5. Results of Composite Reliability

Variabel	R Square	Q^2	AVE	GoF
Servise Quality	0,730	0,878	0,640	0,720
Loyalty	0,249		0,882	

From the table above, it can be seen that the R Square value for each variable is at a value above 0.2 which is considered high in disciplines such as consumer behavior. It can be seen that, the value of the level of relevance (Q²) for all variables is 0.878. This means that it shows that exogenous constructs have great predictive relevance for their endogenous constructs (Ghozali, 2015). The Goodness of Fit (GoF) value obtained in the data processing of this study is 0.720 where the value according to (Ghozali, 2015) includes a large GoF of more than 0.38. Because all the indices required in the inner model test have met the requirements, the proposed model structure is feasible to predict all the hypotheses proposed in this study.

Structural Model Evaluation (Inner Model).
Hypothesis Testing (Resampling Bootstrapping)
To determine whether a hypothesis is accepted or rejected, it can be done by paying attention to the significance value between constructs, t-statistics and p-values. In the bootstraping method in this study, the hypothesis is accepted if the significance value of the t-statistic is greater than 1.96 and or the p-values are smaller than 0.05, then Ha is accepted and Ho is rejected and vice versa.
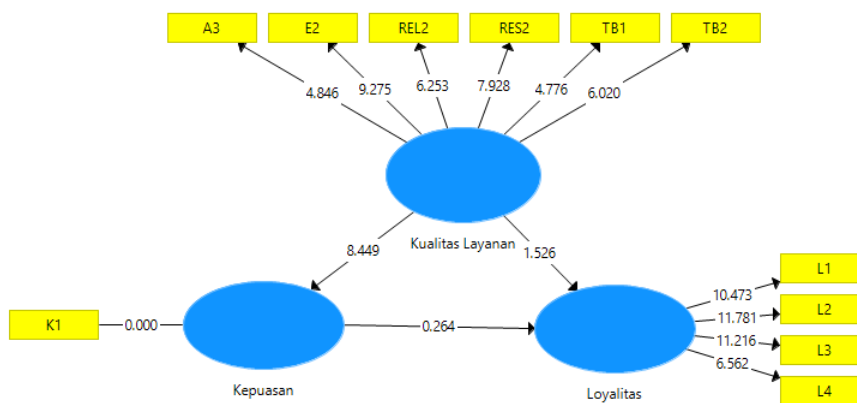

Figure 3. Inner Model Test Results

Based on the test picture above, the hypothesis test results are represented in the table as follows:

Table 6. Path Coefficient and indirect effect

No	Hipotesis	Original Sample	Sample Mean	STDEV	T Statistic	P Value	Keterangan
1	Tangibel ---> Loyalty	-0.011	-0.023	0.291	0.036	0.971	Accepted
2	Emphaty ---> Loyalty	0.088	0.094	0.211	0.416	0.678	Accepted
3	Reliability ---> Loyalty	0.275	0.315	0.304	0.902	0.367	Accepted
4	Responsiveness---> Loyalty	0.435	0.418	0.263	1.656	0.098	Accepted
5	Assurance ---> Loyalty	-0.118	-0.079	0.306	0.385	0.700	Accepted

Discussion
The Effect of Tangibel on Loyalty.
The findings of the tangible relationship with the loyalty variable have a positive influence, but not significant, so it is in accordance with the research hypothesis. The positive effect means that the tangibles felt by consumers of the hospital are increasing, then patient loyalty will also increase, otherwise if the tangible factor decreases, patient loyalty will also decrease. Tangible is intended as the ability of the hospital to demonstrate its ability when dealing directly with its patients. From the average respondent's response to tangibel on loyalty is comparable and linear, so it is clear that tangibel has a positive effect on patient loyalty.

The Effect of Emphaty on Loyalty.
The findings of the relationship between empathy and the satisfaction variable have a positive but insignificant effect, so it is in accordance with the research hypothesis. Positive influence, the meaning is that the emphaty felt by hospital patients. increasing, then patient loyalty will also increase, on the contrary, if the emphaty factor decreases, then patient loyalty will also decrease. Emphaty is intended as individualized attention given by hospital employees to patients such as ease of contacting the company, and good communication from hospital employees to patients. The service will run well, smoothly and with quality if all parties concerned in providing services have empathy in completing or taking care of or have the same commitment to service. From the

average respondent's response to empathy on loyalty is comparable and linear, so it is clear that empathy has a positive effect on patient loyalty.

The Effect of Reliability on Loyalty.
The findings of the reliability relationship with the loyalty variable have a positive influence, but not significant, so that it is in accordance with the research hypothesis. The positive effect means that the reliability felt by hospital patients is increasing, so patient loyalty will also increase, on the other hand, if the reliability factor decreases, patient loyalty will also decrease. Reliability is intended as reliability in the form of skills in mastering the field of work according to skills, as well as reliability in mastering competencies according to the work experience of hospital employees. The findings show that reliability is a description of the existence of hospital nurses, who always accept and serve their patients well, which leads to the loyalty of patients who seek treatment at the hospital.

The Effect of Responsiveness on Loyalty.
The findings of the relationship between responsiveness and the loyalty variable have a positive influence, but not significant, so that it is in accordance with the research hypothesis. Positive influence, the meaning is that the responsiveness felt by hospital patients. increasing, then patient loyalty will also increase, otherwise if the responsiveness factor decreases, patient loyalty will also decrease. Responsiveness is intended as the desire of hospital employees to help their patients, and provide responsive services, such as how hospital employees accept requests, complaints, suggestions, criticisms, complaints, and so on for products or even services received by patients.

The Effect of Assurance on Loyalty.
The findings of the relationship between assurance and the loyalty variable have a positive influence, but not significant, so it is in accordance with the research hypothesis. The positive effect means that the assurance felt by hospital patients is increasing, then patient loyalty will also increase, otherwise if the assurance factor decreases, patient loyalty will also decrease. Assurance is intended as a reference to provide the best and best possible service to hospital patients. The findings show that assurance is a description of the existence of hospital medical personnel, who always serve their patients convincingly, which leads to the satisfaction of patients who seek treatment at the hospital. Consumer trust and confidence are indicated by the level of service use from service provider companies (Ghozali, 2015).

Based on the results of the calculation analysis above, these findings confirm the Theory Of Planned Behavior, that in a service system, service providers and consumers must have a close relationship, where consumers are active participants in the formation of the service process (Jayadipraja et al., 2016). The better the service quality, the more customers (Triandewo & Yustine, 2020) (Susilawati & Pramono Hari Adi, 2022). There are several causes that can influence loyalty. (Philip Kotler, 2012) describes this as influenced by consumer character, marketing stimulation and others, like a satisfying consumers (Ayu et al., 2019). These variables influence each other in the stage of forming good or bad patient perceptions of the services offered by the hospital.
Good service quality will be an advantage for the company. How not, if a company has received a positive in the eyes of the customer, then the customer will give good feedback, and it is not impossible to become a regular customer or repeat buyer. Therefore, it is very important to consider aspects of customer satisfaction related to the quality of service provided (Sulistyawati et al., 2022).

4. CONCLUSION
From the results of the analysis, it can be concluded that there are positive results between the dimensions of TERRA service quality on loyalty, and the dimensions of TERRA service quality are able to confirm the theory of planned behavior that has an impact on loyalty.
Suggestions that can be given related to the TERRA formulation implementation strategy that has an impact on loyalty in the hospital scope, namely: It is hoped that the hospital can maintain and improve service quality towards empathy, because the empathy variable has a dominant influence

in influencing the level of patient loyalty, including by paying more attention to the needs of patients during hospitalization. The limitation of this research is that it examines agencies with a small number of Respondents / Patients or a small population, causing a limited number of samples. Suggestions for further research are to expand the number of research samples to all patients in the hospital.

The limitation of this study is that it examines agencies with a small number of Respondents / Patients or a small population, which results in a limited number of samples. Suggestions for further research are to expand the research sample to all patients in the hospital. Further research can also add sampling criteria related to income, gender, or age classification. It is hoped that the hospital can maintain and improve the quality of service towards empathy, because the empathy variable has a dominant influence in influencing the level of patient satisfaction, including by paying more attention to the needs of patients while undergoing hospitalization.

REFERENCES

Aliyah, Z., Nurlaila, N., & Lubis, F. A. (2022). Pengaruh Pengambilan Keputusan Nasabah Melalui Loyalitas Pada Asuransi Takaful Keluarga Sumatera Utara. *Jurnal Ilmiah Ekonomi Islam*, *8*(1), 934. https://doi.org/10.29040/jiei.v8i1.4425

Ansori, A. Al, & Andjarwati, A. L. (2022). Pengaruh Kualitas Layanan Dan Pengalaman Pelanggan Terhadap Loyalitas Penumpang First Class Double Decker Bus. *Jurnal Ilmu Manajemen (JIM)*, *10*(1).

Athanassopoulos, A., Gounaris, S., & Stathakopoulos, V. (2001). Behavioural responses to customer satisfaction: an empirical study. *European Journal of Marketing*, *35*(5/6), 687–707. https://doi.org/10.1108/03090560110388169

Ayu, S., Fatma, N., Najib, M., & Yasid, M. (2019). *Pengaruh Interpretasi Konsumen dalam Bauran Pemasaran Syariah Terhadap Kepuasan dan Loyalitas Konsumen (Studi Kasus Produk Shampo)*. *5*(03), 277–291.

Azzaida, I. R., & Suzanawaty, L. (2022). Pengaruh Sharia Marketing dan Kualitas Layanan terhadap Loyalitas dengan Kepuasan sebagai variabel Intervening (Studi Kasus Pengguna Tabungan Syariah di BMT Huwaiza Depok). *Jurnal Ilmiah Ekonomi Islam*, *8*(03), 2742–2747.

Ghozali, I. & L. H. (2015). Konsep, Teknik Dan Aplikasi Menggunakan Program Smart PLS 3.0. In *Universitas Diponegoro. Semarang*. https://doi.org/10.1002/14651858.CD002812

Ika Susilawati & Pramono Hari Adi. (2022). *Available at http://jurnal.stie-aas.ac.id/index.php/jie*. *8*(01), 1063–1071.

Jayadipraja, ertika sekar ningrum, Junaid, & Nurzalmariah, wa ode sitti. (2016). Hubungan Kualitas Pelayanan terhadap Loyalitas Pasien Rawat Inap Umum di Rumahsakit Umum Daerah Kota Kendari Tahun 2016. *Jurnal Ilmiah Mahasiswa Kesehatan Masyarakat Unsyiah*, *1*(3), 186420.

Kasiri, L. A., Guan Cheng, K. T., Sambasivan, M., & Sidin, S. M. (2017). Integration of standardization and customization: Impact on service quality, customer satisfaction, and loyalty. *Journal of Retailing and Consumer Services*, *35*(June 2016), 91–97. https://doi.org/10.1016/j.jretconser.2016.11.007

Kotler, P. & K. L. K. (2016). *Manajemen Pemasaran edisi 12 Jilid 1 & 2*. PT. Indeks.

Madyaratri, D. N., & Andjarwati, A. L. (2021). Pengaruh Citra Perusahaan dan Kualitas Layanan terhadap Loyalitas dengan Kepercayaan sebagai Variabel Mediasi. *Jurnal Ilmu Manajemen*, *9*(3), 1150–1162. https://doi.org/10.26740/jim.v9n3.p1150-1162

Parijskij, Y. N. (2005). Radio astronomy: The next 70-year step. *EAS Publications Series*, *15*(2), 479–485. https://doi.org/10.1051/eas:2005172

Philip Kotler. (2012). *Manajemen Pemasaran, Edisi Bahasa Indonesia*. Salemba Empat.

Sugiyono, P. D. (2018). *Metode penelitian kuantitatif* (Cet. 1). Alfabeta.

Suhardi, D. (2021). Pengaruh Promosi, Inovasi, Harga, Terhadap Pembelian Ulang Di Toko Oleh-Oleh Haji Dengan Loyalitas Sebagai Variabel Mediasi. *Jurnal Ilmiah Ekonomi Islam*, *7*(02). http://jurnal.stie-aas.ac.id/index.php/jei/article/view/2770

Sulistyawati, A. I., Dini, Y. L. E., & Triyani, D. (2022). *Pengaruh Peran Manajer, Kualitas Pelayanan Islami Dan Kepercayaan Terhadap Loyalitas Melalui Kepuasan Pasien Bekam Sebagai Variabel Intervening Pada Mitra Sehat THIBUN NABAWI DI MASA COVID-19*. *8*(03), 3737–3747.

Sumadi, S., Tho'in, M., Efendi, T. F., & Permatasari, D. (2021). Pengaruh Strategi Pemasaran Syariah, Kepuasan Konsumen, dan Kepercayaan Konsumen Terhadap Loyalitas Konsumen (Studi Kasus Pada Naughti Hijab Store). *Jurnal Ilmiah Ekonomi Islam*, *7*(2), 1117–1127. https://doi.org/10.29040/jiei.v7i2.2562

Timo, F., Mugiono, & Djawahir, A. H. (2019). The Effect Of Product Quality And Service Quality On Customer Loyalty Mediated By Customer Satisfaction (Evidence On Kharisma Store In Belu District, East Nusa

⚙

Tenggara Province). *South East Asia Journal of Contemporary Business, Economics and Law.*, *19*(5), 13–26.

Triandewo, M. A., & Yustine, Y. (2020). Pengaruh Kualitas Layanan, Citra Perusahaan Dan Kepercayaan Pada Loyalitas Konsumen. *Jurnal Bisnis Dan Akuntansi*, *22*(1), 13–24. https://doi.org/10.34208/jba.v22i1.743

Wibowo, T. J. K., & Khuzaini. (2020). Pengaruh Kualitas Pelayanan, Citra Merek dan Harga terhadap Kepuasan Pelanggan. *Jurnal Ilmu Dan Riset Manajemen*, *9*(5), 1–18.