The Mediating Role of Satisfaction in the Impact of Complaint Handling and Service Quality on Loyalty of Independent BPJS Health Participants

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Abstract: This study aims to examine the influence of complaint handling and service quality on the loyalty of independent BPJS Health participants, with participant satisfaction acting as a mediating variable. A quantitative approach was employed using the SEM-PLS method, involving 251 respondents in Sijunjung Regency. The findings reveal that both complaint handling and service quality positively affect participant satisfaction. However, complaint handling has a negative impact on loyalty, indicating that negative experiences continue to influence participants even after their complaints are addressed. Meanwhile, satisfaction significantly mediates the relationship between service quality and participant loyalty.

Keyword: Grievance Handling, Service Quality, Participant Satisfaction, Participant Loyalty, BPJS Kesehatan

INTRODUCTION

The National Health Insurance (JKN) program managed by the Health Social Security Administration Agency (BPJS) is one of the strategic instruments in realizing equitable and affordable access to health services for all Indonesian people (Alfatiyah & Bastuti, 2023). In its implementation, BPJS Kesehatan participants are divided into two large groups, namely participants who receive contribution assistance (PBI) borne by the state, and independent participants who pay contributions personally (Pratiwi et al., 2021). This last group has special characteristics, since their level of loyalty depends a lot on personal perception and experience of the services received (Pratami et al., 2023). Participant loyalty is a critical factor in maintaining the sustainability of the program, considering that the BPJS financing system is highly dependent on participants' regular contributions (Zuo & Zhai, 2021).

However, in practice, there are still various service problems that have an impact on the loyalty of independent participants (Mardaleta et al., 2022). One of the real indicators can be seen from the high number of complaints from participants related to health services, especially in Sijunjung Regency, which is the location of this research. Based on data from BPJS

Kesehatan Solok Branch in 2024, Sijunjung Regency ranks highest in the number of health service complaints in the work area, with a total of 16 complaints in one year.

The complaints are related to the speed of service, clarity of procedures, and convenience of access to information (Mardaleta et al., 2022; Nguyen et al., 2021; Rahman et al., 2021). This phenomenon shows that there is a gap between participant expectations and the quality of services provided.

A number of previous studies have confirmed that service quality and complaint handling are important determinants in creating customer satisfaction and loyalty in the service sector, including public services such as BPJS (Kurniawan et al., 2022) Satisfaction theory explains that satisfaction occurs when service performance exceeds the customer's initial expectations, or at least in accordance with expectations (Septiano et al., 2020).

Meanwhile, equity theory also plays a role in explaining participants' perceptions of the fairness of the services received, especially in the context of handling complaints and providing compensation (Adzhigalieva et al., 2022; Idris et al., 2023; Susanti, 2021).

Unfortunately, most previous studies still focused on BPJS patients as users of hospital services, not as independent participants who managed their personal membership. In fact, independent participants have a strategic role in achieving Universal Health Coverage, and their loyalty challenges are unique. Therefore, this study is relevant to answer this gap by focusing on the effect of complaint handling and service quality on the loyalty of BPJS Kesehatan Mandiri participants, as well as placing participant satisfaction as a mediation variable.

By understanding the relationship between these variables, this research is expected to make a theoretical contribution to the development of service marketing science in the public sector, as well as offer practical recommendations for BPJS Kesehatan in improving service strategies that are more oriented towards participant satisfaction and loyalty.

METHOD

This study uses a quantitative approach with the type of explanatory research that aims to test the relationship between variables through causal models. The object of the research was BPJS Kesehatan Mandiri participants who were registered in the Sijunjung Regency area, West Sumatra Province.

The population in this study is all active participants of BPJS Kesehatan Mandiri in Sijunjung Regency. The number of populations was not specifically mentioned, but for the purposes of Structural Equation Modeling (SEM) analysis, a sample of 251 respondents was determined, in accordance with the minimum requirements of sample size in SEM based on theory (F. Hair Jr et al., 2014).

The sampling technique was carried out by purposive sampling, with the criterion that the respondents were active independent participants who had interacted directly with BPJS Kesehatan services for at least the last six months.

The instrument used in this study was a questionnaire based on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree", which included indicators of four main variables: complaint handling, service quality, participant satisfaction, and participant loyalty. The indicators in the questionnaire are compiled based on relevant theories and results of previous studies (Larasati et al., 2023; Tjiptono, 2018).
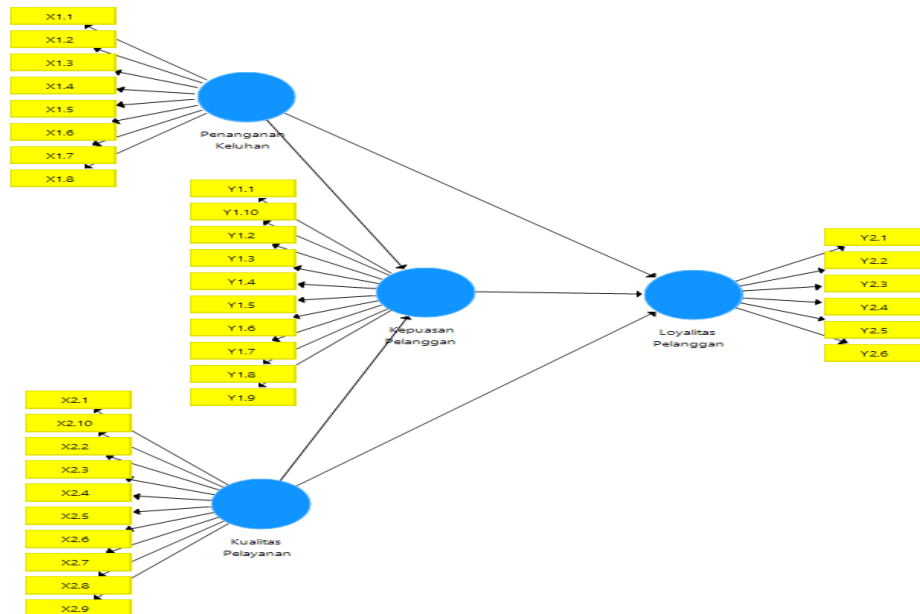
Figure 1. Conceptual Framework

RESULTS AND DISCUSSION

Table 1. Loading Factor Value

CODE	Participant Satisfaction	Quality of Service	Participant Loyalty	Complaint Handling
X1.1				0.939
X1.2				0.970
X1.3				0.966
X1.4				0.962
X1.5				0.895
X2.1		0.923		
X2.10		0.907		
X2.3		0.919		
X2.5		0.890		
X2.6		0.941		
X2.7		0.911		
X2.8		0.941		
Y1.1	0.847			
Y1.10	0.859			
Y1.2	0.847			
Y1.3	0.798			
Y1.7	0.901			
Y1.8	0.834			
Y1.9	0.785			
Y2.1				0.918
Y2.2				0.952
Y2.3				0.880

Source : Data processed by smartpls, Year 2025

Tabel 2. Discriminant Validity - HTMT

	Participant Satisfaction	Quality of Service	Participant Loyalty
Participant Satisfaction			
Quality of Service	0.848		
Participant Loyalty	0.873	0.622	
Complaint Handling	0.778	0.844	0.443

Source : Data processed by smartpls, Year 2025

Table 3. Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Participant Satisfaction	0.930	0.930	0.943	0.705
Quality of Service	0.969	0.970	0.974	0.845
Participant Loyalty	0.905	0.905	0.941	0.841
Complaint Handling	0.971	0.974	0.977	0.896

Source : Data processed by smartpls, Year 2025

The convergent validity of this study data is shown by the loading factor value for all indicators above 0.7 in table 1. This indicates that each indicator has a good contribution in measuring the construct in question. In addition, the Average Variance Extracted (AVE) value for all constructs is also above 0.5, which indicates that the construct is able to explain the variance of its indicators well and meet the criteria for convergent validity.

In table 2, regarding the validity of discriminants, the test was carried out using the Heterotrait-Monotrait Ratio (HTMT). The results of the analysis showed that the HTMT value between constructs was below 0.9, which indicates that there was no overlap between variables. Thus, the constructs in this research model have good discriminative validity and can be clearly distinguished from each other.

The reliability aspect of the construct has also been tested using Cronbach's Alpha and Composite Reliability (CR) values. All constructs obtained values above 0.7, which indicates excellent internal consistency in the measurement of the study variables. This ensures that the instrument used is reliable to measure constructs consistently.

Tabel 4. Nilai VIF

Variabel	X1	X2	Y1	Y2
X1			3.028	4.135
X2			3.028	3.214
Y1				3.035
Y2				

Sumber : Data diolah smartpls, Tahun 2025

In addition, the multicollinearity examination was carried out using the Variance Inflation Factor (VIF). The results showed that the VIF value for all predictor variables was below 5, which indicates that there is no multicollinearity problem in the model. Thus, the predictor variables in this study do not correlate excessively with each other so that the model can be interpreted validly.

Table 5. R-Square Value

	Variabel	R Square
Y1	Participant Satisfaction	0.671
Y2	Participant Loyalty	0.717

Source: Data processed by smartpls, Year 2025

Based on the results shown in Table 5, the R-Square value for the participant satisfaction variable (Y1) is 0.671. This means that the handling of complaints and the quality of service together were able to explain the variation in participant satisfaction of 67.1%, while the remaining 32.9% was explained by other factors outside the model. Furthermore, the R-Square value for the participant loyalty variable (Y2) is 0.717, which shows that the variables of complaint handling, service quality, and participant satisfaction are simultaneously able to

explain the loyalty of BPJS Kesehatan Mandiri participants by 71.7%. Based on the measurement criteria proposed by Chin (1998), the R-Square value in the range of 0.67 or more is relatively strong. Therefore, it can be concluded that this research model has good predictive capabilities and is suitable for use in explaining the relationship between the variables studied.

Tabel 6. Path Coefficient

Variabel	Y1	Y2
X1	0.247	-0.440
X2	0.604	0.100
Y1		1.049

Source: Data processed by smartpls, Year 2025

Based on Table 6, the complaint handling variable (X1) has a coefficient of 0.247 on participant satisfaction (Y1), which indicates a positive influence. This means that the better the handling of complaints provided by BPJS Kesehatan, the higher the level of satisfaction of independent participants. However, the relationship between complaint handling and participant loyalty (Y2) showed a negative coefficient of -0.440. These findings indicate that even if participants' complaints are addressed, it does not necessarily increase loyalty, it may even decrease it, especially if the participant's initial experience is already poor.

Furthermore, the service quality variable (X2) had a positive and significant effect on participant satisfaction with a coefficient value of 0.604. This shows that the quality of service is an important factor in shaping satisfaction. However, the direct effect of service quality on participant loyalty only showed a coefficient value of 0.100, which means that the effect was not directly significant on loyalty.

Meanwhile, the participant satisfaction variable (Y1) had a very strong positive influence on participant loyalty (Y2), with a coefficient of 1.049. This confirms that satisfaction plays a very important role as a mediating variable in bridging the relationship between service quality and participant loyalty. Thus, it can be concluded that loyalty enhancement strategies should be focused on achieving optimal satisfaction levels through quality service and empathetic and targeted complaint handling.

Table 7. Hypothesis Test

Hipotesis	Hubungan	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Result
H1	X1 -> Y1	0.247	0.250	0.069	3.571	0.000	Accepted
H2	X2 -> Y1	0.604	0.599	0.068	8.832	0.000	Accepted
H3	X1 -> Y2	-0.440	-0.446	0.083	5.283	0.000	Accepted
H4	X2 -> Y2	0.100	0.092	0.095	1.060	0.290	Not Accepted
H5	Y1 -> Y2	1.049	1.059	0.075	13.924	0.000	Accepted
H6	X1 -> Y1-> Y2	0.260	0.266	0.079	3.288	0.001	Accepted
H7	X2 -> Y1-> Y2	0.634	0.634	0.083	7.651	0.000	Accepted

Source: Data processed by smartpls, Year 2025

The results of hypothesis testing using the Structural Equation Modeling - Partial Least Square (SEM-PLS) method show several important findings related to the relationship between the research variables. The first hypothesis (H1) about the effect of complaint handling (X1) on participant satisfaction (Y1) was accepted with an original sample value of 0.247 and a statistical T-value of 3.571 (p-value 0.000). This shows that the better the handling of complaints, the higher the level of participant satisfaction.

The second hypothesis (H2), which tested the effect of service quality (X2) on participant satisfaction (Y1), was also accepted with an original sample value of 0.604 and a

T-statistic of 8.832 (p-value 0.000). This confirms that the quality of service has a significant positive influence on participant satisfaction, even the influence is more dominant than the handling of complaints.

In the third hypothesis (H3), which measured the direct influence of complaint handling (X1) on participant loyalty (Y2), a significant negative effect was found with the original sample of -0.440 and the T-statistic of 5.283 (p-value 0.000). This shows that even though the participants' complaints have been handled well, there are previous negative experiences that still negatively affect the participants' loyalty.

In contrast to the fourth hypothesis (H4), which tested the direct relationship between service quality (X2) and participant loyalty (Y2), the results were insignificant with an original sample value of 0.100 and a statistical T-value of 1.060 (p-value 0.290). This means that the quality of direct service does not have a significant impact on participant loyalty.

The fifth hypothesis (H5) shows that participant satisfaction (Y1) has a significant positive influence on participant loyalty (Y2) with an original sample of 1,049 and a T-statistic of 13,924 (p-value 0.000). These findings indicate that the higher the satisfaction felt by the participants, the higher their loyalty to BPJS Kesehatan.

Furthermore, the sixth hypothesis (H6), which tested the mediating role of participant satisfaction between complaint handling and participant loyalty, was accepted with an original sample of 0.260 and a T-statistic of 3.288 (p-value 0.001). This shows that handling complaints is able to increase participant loyalty indirectly through increasing participant satisfaction.

Finally, the seventh hypothesis (H7) which examined the mediation of participant satisfaction in the relationship between service quality and participant loyalty was also accepted with an original sample of 0.634 and a T-statistic of 7.651 (p-value 0.000). This means that the quality of service provided will significantly increase participant loyalty if they succeed in increasing satisfaction first.

From this analysis, it is clear that participant satisfaction plays an important role as a mediator, which connects complaint handling efforts and service quality with participant loyalty to BPJS Kesehatan Mandiri Sijunjung Regency.

CONCLUSION

Handling complaints has been proven to have a significant positive influence on participant satisfaction, which means that good complaint handling is able to increase the satisfaction of BPJS Kesehatan Mandiri participants. Second, the quality of service also shows a strong positive impact on participant satisfaction, even more dominant than complaint handling, emphasizing the importance of improving service quality as a priority in an effort to increase participant satisfaction.

Another interesting finding was the negative effect of complaint handling on participant loyalty, which showed that even though complaints had been handled well, the negative experiences experienced by previous participants still left a significant impact on loyalty. On the other hand, the quality of service directly does not have a significant impact on participant loyalty, but provides a strong indirect impact through participant satisfaction.

Participant satisfaction has proven to be a very strong mediating variable in the relationship between service quality and participant loyalty. This means that the loyalty of BPJS Kesehatan Mandiri participants can be effectively increased by ensuring participant satisfaction is achieved through optimal service quality. Similarly, satisfaction also mediates the positive influence of handling complaints on participant loyalty indirectly.

Overall, the results of this study confirm that to maintain and increase participant loyalty, BPJS Kesehatan Mandiri must prioritize improving service quality and complaint handling strategies that are not only reactive, but also proactive in managing participant expectations. These findings provide practical implications for BPJS Kesehatan Sijunjung Regency in

designing a more targeted service program to support the achievement of Universal Health Coverage in a sustainable manner.

REFERENCE

Adzhigalieva, Z., Hurriyati, R., & Hendrayati, H. (2022). *The Influence of Complaint Handling and Service Recovery on Customer Satisfaction, Customer Loyalty and Customer Retention*. https://doi.org/10.2991/aebmr.k.220701.055

Alfatiyah, R., & Bastuti, S. (2023). Improving the Quality of Service Using the IPA and PGCV Methods at BPJS Kesehatan, South Tangerang. *Jurnal Ilmiah Teknik Industri*, *22*(1), 25–32. https://doi.org/10.23917/jiti.v22i1.21685

F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Idris, M., Abidin, M., & Willya, E. (2023). Justice in Handling Complaints and Its Impact on Satisfaction and Loyalty in Higher Education. *Perspectives of Science and Education*, *61*(1), 24–39. https://doi.org/10.32744/pse.2023.1.2

Kurniawan, Y., Winoto, H., & Fushen. (2022). Pengaruh Kualitas Layanan dan Penanganan Keluhan terhadap Loyalitas Pasien BPJS Dimediasi Oleh Kepuasan Pelanggan (Studi Pada Pasien Pengguna BPJS Kesehatan di RSIA Bunda Sejahtera). *Jurnal Manajemen Dan Administrasi Rumah Sakit Indonesia (MARSI)*, *6*(1), 74–85.

Larasati, T., Winoto, H., & Wahyoedi, S. (2023). Pengaruh Kualitas Pelayanan dan Penanganan Keluhan terdahap Loyalitas Pasien BPJS Dimediasi oleh Kepuasan Pasien Pada Klinik Mutiara Gading Medika Bekasi. *Journal of Social and Economics Research*, *5*(2), 1856–1867.

Mardaleta, M., Lubis, A. R., Diantimala, Y., & Fahlevi, H. (2022). Determinants of Patient Behavioural Loyalty on Primary Health Centres: Evidence From a Cross-Sectional Study in Indonesia. *F1000research*, *11*, 440. https://doi.org/10.12688/f1000research.110684.2

Nguyen, N. X., Tran, K., & Nguyen, T. (2021). Impact of Service Quality on in-Patients' Satisfaction, Perceived Value, and Customer Loyalty: A Mixed-Methods Study From a Developing Country. *Patient Preference and Adherence*, *Volume 15*, 2523–2538. https://doi.org/10.2147/ppa.s333586

Pratami, J. F., Gaffar, V., Dirgantari, P. D., Furqon, C., & Maryati, M. (2023). Managing Patient Loyalty Through Digital Patient Experience. *Journal of Eastern European and Central Asian Research (Jeecar)*, *10*(4), 620–629. https://doi.org/10.15549/jeecar.v10i4.1356

Pratiwi, A. B., Setiyaningsih, H., Kok, M., Hoekstra, T., Mukti, A. G., & Pisani, E. (2021). Is Indonesia Achieving Universal Health Coverage? Secondary Analysis of National Data on Insurance Coverage, Health Spending and Service Availability. *BMJ Open*, *11*(10), e050565. https://doi.org/10.1136/bmjopen-2021-050565

Rahman, M. K., Bhuiyan, M. A., & Zailani, S. (2021). Healthcare Services: Patient Satisfaction and Loyalty Lessons From Islamic Friendly Hospitals. *Patient Preference and Adherence*, *Volume 15*, 2633–2646. https://doi.org/10.2147/ppa.s333595

Septiano, R., Defit, S., Yulasmi, Nandan Limakrisna, & Lusiana, L. (2020). Factors Influencing Customer Satisfaction and Customer Loyalty. *Factors Affecting Satisfaction Level of Customers (Customwritingservice.Org)*, *8*(1), 1–7. Factors Affecting Satisfaction Level of Customers (customwritingservice.org)

Susanti, E. (2021). Complaints Handling Satisfaction Mediates Between Complaints Handling to Customer Loyalty for the Indonesian Banking Industry. *International Journal of Digital Entrepreneurship and Business*, *2*(2). https://doi.org/10.52238/ideb.v2i2.69

Tjiptono, F. (2018). *Pemasanan Jasa (Prinsip, Penerapan, Penelitian)*. Andi.

Zuo, F., & Zhai, S. (2021). The Influence of China's COVID-19 Treatment Policy on the Sustainability of Its Social Health Insurance System. *Risk Management and Healthcare Policy*, *Volume 14*, 4243–4252. https://doi.org/10.2147/rmhp.s322040