The Influence of Service Quality and Customer Satisfaction on Customer Loyalty at the Center for Weather Modification Technology

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Abstract

This study aims to determine the effect of service quality on customer satisfaction. the influence of service quality on customer loyalty and the influence of customer satisfaction on customer loyalty. The object of the research is that there are customers of the Center for Weather Modification Technology. The research sample was 104 respondents, but only 77 respondents responded. Analysis tool using Smart PLS. The results of the study are that service quality has a significant positive effect on customer satisfaction, service quality has a significant negative effect on customer loyalty, and customer satisfaction has a significant positive effect on customer loyalty when supported by customer satisfaction.

Keywords : Marketing, Service Quality, Customer Satisfaction, Customer Loyalty

1. INTRODUCTION

1.1. Background

Indonesia is а country that has a fairly high natural disaster risk index. Based on data on disaster events in Indonesia (from 1990 to 2015) from the National Disaster Management Agency (BNPB), disaster events in Indonesia are dominated by hydrometeorological disasters, such as floods, droughts, landslides, tornadoes, tidal waves or haze caused by forest and land fires.

Customer loyalty has an important role in an

organization. The Center for Weather Modification Technology (BBTMC), as a business actor, must be able to play a reliable marketing strategy and be able to attract consumer interest so that it can increase revenue. To overcome this, business people must have a strong strategy for marketing their products and services so that they can survive in business competition. Retaining customers is very difficult and important because it requires good trust and is a consideration of what marketing strategy will be carried out by the

Vol. 2, No. 1 Agustus 2023 next business actor. To improve the quality of services, customers get satisfaction and this has the implication that customers will become loyal to BBTMC services. Loyal consumers are those who are very satisfied with certain services so they have enthusiasm to introduce them to people they know. In other words, loyalty is the loyalty of service users after experiencing a service which is expressed in behavior to use the service which reflects the existence of a long-term bond. between a service used by a customer.

2. RESEARCH METHODS

2.1 Research Design This research uses a causal quantitative approach. Sugiyono (2011:15) explains that a causal quantitative approach is research that looks for the relationship between one variable and another variable that has a cause and effect relationship.

2.2. Place and Time of Implementation

The research process carried out by the author was located in the Soebagyo Building, Puspitek Weather Serpong Area, Modification Technology Center. This research is limited to "The Influence of Service Quality and Customer Satisfaction on Customer Loyalty at the Center for Weather Modification Technology".

2.3 Population

The population is users served by the Center for Weather Modification Technology (BB-TMC) in the service year from 2015 -2018. Users served by the for Weather Center Modification Technology (BB-TMC) are Government Agencies, namely BNPB, BPBD South Sumatra, BPBD West Kalimantan Riau, BPBD, South Kalimantan BPBD, Central Kalimantan **BPBD**, **BUMN** and **Private**

Vol. 2, No. 1 Agustus 2023

2.4 Sample

The sampling technique was carried out using purposive sampling. Purposive sampling is included in the non-probability sampling method (Sugiyono, 2011). The samples taken in this research had the following criteria:

a) Customers who have requested Weather Modification Technology at least 5 times.

b) Customers who have recommended Weather Modification Technology activity services to other companies.

c) Customers who already believe in the reliability of weather modification technology services to others. The research respondents were people who used TMC services, namely 104 respondents. From the distribution of the questionnaires, only 77 questionnaires were returned, so the data analyzed in this study was 77 respondents.

2.5 Research Variable

Research	Indicator		No.
Variable			Item
Service	1.	Reliability	1,2
Quality (X)	2.	Responsiveness	3,4
	3.	Assurance	5,6
	4.	Empathy	7,8
	5.	Tangibles	9,10
Customer	1.	Conformity	11,12
Satisfaction	2.	Performance Perception	13,14
(Y)	3.	Customer Assessment	15,16
	4.	Price	17,18
	5.	Service Quality	19,20
	6.	Product Quality	21,22

2.6 Research Model



1. Result

Talala	4 Date	Co officients
laple	1 Path	Coefficients

	Original	Т	Р		
	Sample	Statistic	Values		
Customer	1,220	6,271	0,000		
Satisfaction \rightarrow					
Customer Loyalty					
Service Quality \rightarrow	0,906	50,135	0,000		
Customer					
Satisfaction					
Service Quality \rightarrow	-0,601	0,013	0,001		
Customer Loyalty					
Source : SEM – PLS 3					

Based on the results of research tested using SMART PLS regarding the variables of service quality, customer satisfaction and customer loyalty, it can be concluded that:

a. Original Sample Results = 0.906, T Statistics = 1.848, P Values = 0.000. This shows that the influence of service quality on customer satisfaction is significant. Thus, H1 in this research is accepted. This means that service quality can increase the success of customer satisfaction. These results support the finding that service quality is an antecedent of customer satisfaction (Bedi, 2010; Kassim & Abdullah, 2010; Kumar et al., 2009; Naeem et al., 2009; Balaji, 2009; Lee & Hwan, 2005; Athanassopoulos & Iliakopoulos, 2003; Parasuraman et al., 1985, Yee et al., 2010). Service quality has a significant positive effect on

Vol. 2, No. 1 Agustus 2023

Customer	1.	Rebuying	23,24
Loyality (Z)	2.	Buying Product/Services	25,26
	3.	Reference to Other	27,28
	4.	immunity to other	29,30
		product	

customer satisfaction. This shows that BBTMC's concern for providing consultations to customers is speed in providing TMC services, timeliness in providing TMC service activities, knowledge of BBTMC employees in providing the services provided, BBTMC employees provide TMC services with a friendly and polite attitude, BBTMC employees always prioritize The interests of customers and adequate TMC service activity post facilities will increase customer satisfaction.

and cooperation with TMC customers, TMC personnel have experienced skills, TMC personnel have knowledge in accordance with the competency of the work unit, clarity in providing information on cloud growth, ease of providing suggestions and complaints regarding the performance of activity implementation, the rates given are in accordance with quality the TMC services that have been provided, the TMC services are in accordance with the expected results, the speed of TMC services has provided the agreed results and the seedling materials used in TMC operations are environmentally friendly which will increase customer loyalty.

2. CONCLUSION

a. There is a significant influence between service quality and customer satisfaction. Thus, H1 in this

customer satisfaction. This shows that BBTMC's concern for providing consultations to customers is speed in providing TMC services, timeliness in providing TMC service activities, knowledge of BBTMC employees in providing the services provided, BBTMC employees provide TMC services with a friendly and polite attitude, BBTMC employees always prioritize The interests of customers and adequate TMC service activity post facilities will increase customer satisfaction.

and Operations Management, 12(2), 224–245.

- Balaji, M. S. (2009). Customer Satisfaction with Indian Mobile Services. *IUP Journal of Management Research, 8*(10).
- Bedi, M. (2010). An Integrated Framework For
 Service Quality, Customer Satisfaction And
 Behavioral Responses In Indian Banking
 Industry--A Comparison Of Public And Private
 Sector Banks. *Journal of Services Research*,
 10(1).
- Asia Pacific Journal of Marketing and Logistics, 22(3), 351–371.
- Kumar, M., Tat Kee, F., & Taap Manshor, A. (2009).
 Determining the relative importance of critical factors in delivering service quality of banks: an application of dominance analysis in SERVQUAL model. *Managing Service Quality: An*

Vol. 2, No. 1 Agustus 2023

research is accepted.

b. There is a significant negative influence Lee, M. C., & Hwan, S. (2005). Relationships among between service quality and customer loyalty. Thus, H2 in this study is rejected.

c. There is a significant influence between customer satisfaction and customer loyalty. Thus, H3 in this research is accepted.

5. ADVICE

Suggestions for further research are to use a larger sample, so that it can strengthen the research results

BIBLIOGRAPHY

Athanassopoulos, A. D., & Iliakopoulos, A. (2003). Modeling customer satisfaction in telecommunications: Assessing the effects of multiple transaction points on the perceived overall performance of the provider. Production

- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. Journal of *Marketing*, *49*(4), 41–50.
- Sembiring, I. J. (2014). Pengaruh Kualitas Produk Dan Kualitas Pelayanan Terhadap Kepuasan Pelanggan Dalam Membentuk Loyalitas Pelanggan (Studi pada Pelanggan McDonaldâs MT.Haryono Malang). Jurnal Administrasi Bisnis, 15(1), 1–10.
- Sumertana, I. W. (2016). Pengaruh Kualitas Pelayanan terhadap Loyalitas Pelanggan dengan Kepuasan Pelanggan sebagai Variabel Intervening pada Water Park Seririt Singaraja Tahun 2014-2015. Jurnal Program Studi Pendidikan Ekonomi (JPPE), 7(2), 10.

https://doi.org/10.5901/mjss.2016.v7n1p333

International Journal, 19(2), 211–228.

- service quality, customer satisfaction and profitability in the Taiwanese banking industry. International Journal of Management, 22(4), 635.
- Naeem, H., Akram, A., & Saif, M. I. (2009). Service Quality and its impact on Customer Satisfaction: An empirical evidence from the Pakistani banking sector. International Business & Economics Research Journal (IBER), 8(12).
- Yee, R. W. Y., Yeung, A. C. L., & Cheng, T. C. E. (2010). An empirical study of employee loyalty, service quality and firm performance in the service industry. International Journal of *Production Economics*, *124*(1), 109–120.
- Yulisetiarini, D. (2016). The Effect of Relationship Marketing towards Costumer Satisfaction and Customer Loyalty on Franchised Retails in East Java. Mediterranean Journal of Social Sciences, 7(1), 333–339.
- Dewi, K. A. N. (2016). Kiki Amelia Nurmala Dewi -Pengaruh Kualitas Layanan Terhadap Loyalitas ... BISMA, 9(1).
- Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in ecommerce settings: A cross cultural analysis.

and Operations Management, 12(2), 224–245.

- Balaji, M. S. (2009). Customer Satisfaction with Indian Mobile Services. IUP Journal of Management Research, 8(10).
- Bedi, M. (2010). An Integrated Framework For Service Quality, Customer

Vol. 2, No. 1 Agustus 2023

SatisfactionResponses In Indian Banking Industry--A Comparison Of Public And Private Sector Banks. *Journal of Services Research*, *10*(1).