

The Effect Of Using Structured Chat On Customer Satisfaction

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Abstract. This study aims to determine the implementation of structured chat in customer service, the level of customer satisfaction, and the effect of structured chat on customer satisfaction in Indonesia Business Education. This study is motivated by the increasing use of WhatsApp Business as a customer service medium in training institutions. Structured chat is implemented to improve response speed, clarity and consistency of information, and regularity of communication. This study uses a quantitative approach with a causal associative research type. The study population was 150 customers with a sample of 109 respondents determined using the Slovin formula. Data were collected through a Likert scale questionnaire and analyzed using SPSS through descriptive analysis, validity tests, reliability, classical assumption tests, simple linear regression, t-tests, and coefficients of determination. The results showed that the implementation of structured chat was in the good category, while customer satisfaction was in the high category. The results of the analysis showed that structured chat had a positive and significant effect on customer satisfaction with a regression equation of $Y = 7.572 + 0.694X$ and a significance value of $0.000 < 0.05$. The R^2 value of 0.409 indicates that structured chat contributes 40.9% to customer satisfaction, while other factors influence the remaining 59.1%. Therefore, the better the implementation of structured chat, the higher the level of customer satisfaction in Indonesia Business Education.

Keywords: Structured Chat, Customer Satisfaction, Digital Communication, Whatsapp Business.

1 Introduction

The development of information and communication technology has driven transformation in various sectors, including education and training (Eduvest, 2025). Digitalization has also changed communication patterns between organizations and customers, which are now increasingly conducted through real-time, flexible, and documented digital media. One widely used medium is WhatsApp Business, which provides automated messaging features, quick replies, and communication management that can support more professional customer service. From a service marketing perspective, service quality is a crucial factor in shaping customer satisfaction. Kotler and Keller [11] explain that customer satisfaction is the feeling that arises after comparing the service performance received with expectations. Meanwhile, Parasuraman, Zeithaml, and Berry [16] place responsiveness as an important dimension of service quality, specifically the ability to provide fast, appropriate responses and assist customers.

The use of digital media as a service delivery tool also presents challenges in communication management. The high volume of messages, repetitive questions, and diverse information needs can lead to delayed responses, repeated answers, and inconsistencies in information if not managed systematically. This situation also occurs at Indonesia Business Education, which uses WhatsApp for various service processes, such as registration, payment confirmation, delivery of activity information, and handling participant inquiries. Therefore, more structured communication management is needed to improve service effectiveness.

One approach that can be applied is structured chat, namely message management through the use of answer templates, question grouping, customer status recording, and organized communication documentation. The implementation of structured chat is expected to improve response speed, information clarity, answer consistency, and communication regularity so as to provide a better

service experience for customers. In this study, structured chat is measured through indicators of response speed, information clarity, information consistency, and chat management regularity, while customer satisfaction is measured through satisfaction with the service, conformity to expectations, interest in reusing the service, and willingness to recommend the service. Based on this description, this study aims to determine the implementation of structured chat, customer satisfaction levels, and the effect of structured chat on customer satisfaction in Indonesia Business Education.

2 Method

This study uses a quantitative approach with a causal associative research type to analyze the effect of structured chat on customer satisfaction at Indonesia Business Education. The study was conducted on customers who had used chat-based communication services at Indonesia Business Education. The study population was 150 customers, with a sample of 109 respondents determined using the Slovin formula. Primary data was obtained by distributing questionnaires to respondents using a five-point Likert scale, namely 1 = strongly disagree to 5 = strongly agree. The research instrument consisted of 16 statements, which included 8 items for the structured chat variable (X) and 8 items for the customer satisfaction variable (Y). The structured chat variable was measured through indicators of response speed, information clarity, information consistency, and regularity of chat management. Meanwhile, customer satisfaction was measured through indicators of satisfaction with the service, conformity to expectations, interest in reusing the service, and willingness to recommend the service to others. In addition to primary data, this study also used literature studies to support the preparation of the theoretical basis and discussion.

Before use, the research instrument was tested for validity and reliability. The validity test was conducted by looking at the correlation between item scores and total scores, while the reliability test used Cronbach's Alpha with the criteria for the instrument being declared reliable if the α value ≥ 0.60 . The collected data were analyzed using SPSS through descriptive analysis, normality test, heteroscedasticity test, simple linear regression analysis, t-test, and coefficient of determination (R^2). Simple linear regression analysis was used to determine the effect of structured chat variables on customer satisfaction, while the t-test was used to test the significance of the partial effect. Decision making was carried out at a 5% significance level ($\alpha = 0.05$) or a 95% confidence level.

Table 1. Research variables

Variables		Indicator	No. Item	Number of Items	Scale
Structured Chat (X)		Response Speed	1, 2	2	Liked (1–5)
		Clarity of Information	3, 4	2	Liked (1–5)
		Information Consistency	5, 6	2	Liked (1–5)
		Chat Management Regularity	7, 8	2	Liked (1–5)
Customer Satisfaction (Y)		Satisfaction with service	9, 10	2	Liked (1–5)
		Conformity to expectations	11, 12	2	Liked (1–5)
		Interest in reusing	13, 14	2	Liked (1–5)
		Recommendations to others	15, 16	2	Liked (1–5)

3 Results and Discussion

3.1 Descriptive Analysis of Research Variables

Table 2. Descriptive Statistics of Research Variables

Variables	N	Mean	Std. Deviation	Minimum	Maximum
Structured Chat (X)	109	24,76	5,153	9	36
Customer Satisfaction (Y)	109	32,62	4,786	19	40

Based on Table 4.3, the structured chat variable has a total average value of 24.76 with a standard deviation of 5.153, a minimum value of 9, and a maximum of 36. With an average per item of 4.08, the implementation of structured chat is in the high category. Meanwhile, the customer satisfaction variable has a total average value of 32.62 with a standard deviation of 4.786, a minimum value of 19, and a maximum of 40. The average per item of 4.08 indicates that the level of customer satisfaction is also in the high category.

Table 3. Description of Structured Chat Variable Items

Item	Statement	Mean	Std. Dev.	Category
X1	1. Chat service provides fast response	3,07	0,65	Enough
X2	2. The waiting time for a reply from the admin is not too long.	3,24	0,66	Enough
X3	3. The information provided is easy to understand	3,28	0,68	Enough
X4	4. The explanation given is clear and not confusing.	3,09	0,77	Enough
X5	5. The information provided is consistent	3,09	0,71	Enough
X6	6. There is no difference in the admin's answer	3,27	0,62	Enough
X7	7. The chat conversation flow is neatly arranged	3,37	0,75	Enough
X8	8. Chat service is well managed	3,12	0,69	Enough

The structured chat variable was measured through eight items covering response speed, information clarity, information consistency, and regularity of chat management. According to Table 3, all items were in the sufficient category, with the highest score for X7 at 3.37 and the lowest for X1 at 3.07. This indicates that the implementation of structured chat is quite good, but still needs improvement.

Table 4. Description of Customer Satisfaction Variable Items

Item	Statement	Mean	Std. Dev.	Category
Y1	9. I am satisfied with the chat service provided	3,33	0,74	Enough
Y2	10. The chat service meets my needs.	3,15	0,68	Enough
Y3	11. The service provided meets my expectations.	3,19	0,70	Enough
Y4	12. The experience of using this service is satisfactory.	3,13	0,64	Enough
Y5	13. I am willing to use this service again	2,97	0,61	Enough
Y6	14. I will continue to use this service in the future.	3,13	0,74	Enough
Y7	15. I am willing to recommend this service to others.	3,09	0,75	Enough
Y8	16. I would recommend this service to friends or family	3,31	0,63	Enough

Customer satisfaction was measured using eight items, including service satisfaction, meeting expectations, intention to reuse, and recommendations. According to Table 4, all items fall into the sufficient category, with the highest score at Y1 being 3.33 and the lowest at Y5 being 2.97. These results indicate that customers are quite satisfied with the chat service, but service quality improvements are still needed.

3.2 Validity Test

Table 5. Validity Test Results

Item	r Count	r Table	Say.	Information
X1	0,843	0,188	0,000	Valid

X2	0,828	0,188	0,000	Valid
X3	0,819	0,188	0,000	Valid
X4	0,813	0,188	0,000	Valid
X5	0,873	0,188	0,000	Valid
X6	0,845	0,188	0,000	Valid
X7	0,862	0,188	0,000	Valid
X8	0,821	0,188	0,000	Valid
Y1	0.839	0.188	0,000	Valid
Y2	0.853	0.188	0,000	Valid
Y3	0.836	0.188	0,000	Valid
Y4	0.856	0.188	0,000	Valid
Y5	0.821	0.188	0,000	Valid
Y6	0.842	0.188	0,000	Valid
Y7	0.850	0.188	0,000	Valid
Y8	0.839	0.188	0,000	Valid

Based on the results of the validity test that has been carried out on the Structured Chat (X) and Customer Satisfaction (Y) variables with a total of 109 respondents, it can be concluded that all statement items used in the research instrument meet the validity criteria.

3.3 Reliability Test

Table 6. Reliability Test Results

Variables	Cronbach Alpha	Information
Structured Chat (X)	0,939	Very Reliable
Customer Satisfaction (Y)	0,941	Very Reliable

Based on the reliability test results, the Customer Satisfaction variable obtained a Cronbach's Alpha value of 0.941. This value is categorized as highly reliable because it exceeds the minimum limit of 0.60.

3.4 Normality Test

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total_KL	.082	109	.071	.989	109	.501
Total_KP	.064	109	.200 ^a	.968	109	.010

^a. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Figure 1. Primary Data Processed with SPSS, 2026

Based on the results of the normality test using the Kolmogorov-Smirnov method on 109 respondents, the significance value for the Structured Chat variable (Total_KL) was 0.071. This value is greater than 0.05 ($0.071 > 0.05$), so it can be concluded that the Structured Chat variable data is normally distributed.

3.5 Heteroscedasticity Test

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	Total_KP Total_KL ^b	.	Enter

a. Dependent Variable: ABS_RES
b. All requested variables entered

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.072 ^a	.005	-.014	1.14902

a. Predictors: (Constant), Total_KP, Total_KL

Figure 2. Results of Heteroscedasticity Test

Based on the SPSS output results in the Model Summary table, an R value of 0.072 was obtained, indicating that the relationship between the independent variables and the absolute value of the residuals is very weak. An R Square value of 0.005 indicates that only 0.5% of the residual variation can be explained by the tested variables, while the remaining 99.5% is influenced by other factors outside the research model. An Adjusted R Square value of -0.014 indicates that the model's ability to explain residual variation is very low so there is no indication of a specific pattern in the residuals.

3.6 Coefficient of Determination Test (R Square)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.923 ^a	.853	.851	1.846

a. Predictors: (Constant), Total_KL

Figure 3. Results of the Determination Coefficient Test (R Square)

The R value of 0.923 indicates that the relationship between the Structured Chat variable and Customer Satisfaction is in the very strong category, because it is close to the number 1.

3.7 Model Feasibility Test (F Test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2108.853	1	2108.853	618.677	.000 ^b
	Residual	364.725	107	3.409		
	Total	2473.578	108			

a. Dependent Variable: Total_KP
b. Predictors: (Constant), Total_KL

Figure 4. Results of Heteroscedasticity Test

Based on the SPSS output results, the calculated F value was 618.677 with a significance level of 0.000. Because the significance value of $0.000 < 0.05$, H_0 was rejected and H_1 was accepted.

3.8 Implementing Structured Chat in Customer Service

Based on the descriptive analysis, the implementation of structured chat at Indonesia Business Education is categorized as good. This indicates that communication via WhatsApp has been quite effective through relatively quick responses, clear information delivery, consistent responses, and orderly conversation management. The use of templates and communication standards helps create uniformity of information and reduces customer confusion due to differences in responses between administrators. Therefore, the implementation of structured chat can improve service efficiency and

create a more professional communication experience for customers.

3.9 Customer Satisfaction Level with the Services Provided

The descriptive analysis results indicate that customer satisfaction with Indonesia Business Education's services is high. This satisfaction is reflected in positive assessments of service quality, conformity to expectations, ease of access to information, willingness to reuse the service, and willingness to recommend it to others. This demonstrates that WhatsApp services have been able to meet customer needs and expectations and support the formation of loyalty and a positive image of the institution.

3.10 The Impact of Structured Chat on Customer Satisfaction

The results of a simple linear regression analysis show that structured chat has a positive and significant effect on customer satisfaction, with the equation $Y = 7.572 + 0.694X$. The positive coefficient indicates that the better the implementation of structured chat, the higher the customer satisfaction. The t-test results show a significance value of $0.000 < 0.05$, so the research hypothesis is accepted. The coefficient of determination (R^2) value of 0.409 indicates that structured chat explains 40.9% of the variation in customer satisfaction, while 59.1% is influenced by other factors outside the study. This finding is in line with the SERVQUAL theory which emphasizes the importance of responsiveness and assurance in service quality. Thus, the implementation of structured chat through fast, clear, consistent, and regular communication is an important factor in increasing customer satisfaction in Indonesia Business Education.

3.11 Relationship between Research Results and Previous Research

The results of the study indicate that structured chat has a positive and significant effect on customer satisfaction, with a significance value of $0.000 < 0.05$ and a regression coefficient of 0.694. This finding aligns with previous research showing that response speed, clarity of information, quality of digital communication, use of WhatsApp Business, and automation features can increase customer satisfaction. This study strengthens these findings by demonstrating that the effectiveness of digital media is increasingly optimal when supported by structured chat management through templates, standard answers, quick replies, and communication documentation. These results also align with the theory of Kotler and Keller [11] that satisfaction is formed when service performance is able to meet customer expectations.

4. Conclusion and Suggestions

Based on the results of the study of 109 respondents, it can be concluded that the implementation of structured chat in Indonesia Business Education is in the good category, while the level of customer satisfaction is in the high category. The results of a simple linear regression analysis show that structured chat has a positive and significant effect on customer satisfaction with the equation $Y = 7.572 + 0.694X$ and a significance value of $0.000 < 0.05$. The coefficient of determination (R^2) value of 0.409 indicates that structured chat is able to explain 40.9% of the variation in customer satisfaction, while 59.1% is influenced by other factors outside the study. Thus, the better the implementation of structured chat through fast, clear, consistent, and organized communication, the higher the customer satisfaction in Indonesia Business Education.

Indonesia Business Education is advised to continue improving the quality of chat management, particularly in terms of response speed, clarity and consistency of information, and optimizing the use of templates and a structured communication management system. Regular service evaluations are also necessary to maintain and improve customer satisfaction. Future researchers can expand their research by adding other variables, such as service quality, trust, customer loyalty, or information system quality, to achieve more comprehensive results.

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