

The Impact of E-Logistics Service Quality on Customer Satisfaction in Tokopedia

Arneta Dermawan^a, Norlatifah^a, Reni Dian Octaviani^a

^aFaculty of Management and Business, Institut Transportasi dan Logistik Trisakti, Jakarta, Indonesia

Corresponding author: arnetadermawan@gmail.com

Abstract: This study investigates the impact of e-logistics service quality on customer satisfaction in the Tokopedia, a leading e-commerce platform in Indonesia. The study focuses on three key dimensions of e-logistic service quality: timeliness, order condition, and order accuracy. The research employs a quantitative approach using a questionnaire method and structural equation modelling (SEM) and partial least squares (PLS) analysis with a population and sample of 205 respondents who are domiciled in Greater Jakarta and have been using the Tokopedia application for at least the last 6 months.

Keywords: *E-logistic Service Quality, Timeliness, Order Condition, Order Accuracy, Customer Satisfaction*

1. Introduction

In Indonesia, Tokopedia is the e-commerce site with the highest traffic during the second quarter of 2022. Tokopedia has the most monthly website traffic during this time period 158.3 million when compared to its rivals, according to data provided by iPrice. It is one of the Indonesian online marketplace providers that makes it easier for consumers to purchase and sell goods and services online by providing straightforward ease, a wide selection, and affordable costs (Maulana, 2022).

Customer satisfaction refers to an individual's dissatisfaction or delight with a product's performance compared to their expectations. Every company's objective is to satisfy its customers in order to survive. This leads to client happiness, which is one of the most significant criteria for winning the competition (Hamzah et al., 2021).

However, satisfaction in e-commerce is measured not only in terms of products but also needs to be effectively delivered in the context of high-quality e-logistics (Kawa & Światowiec-Szczepańska, 2021).

E-Logistic Services Quality is an important aspect of the success of e-commerce firms. Companies that provide high-quality logistics services may improve customer happiness, establish loyalty, and gain a competitive edge. Advancements in e-logistic service quality (E-LSQ) have aided the success of numerous online firms. To keep up with the global economy, the logistics industry and delivery technologies are constantly evolving (Hong Vo Tuan Truong et al., 2023).

Although the importance of E-LSQ is analyzed, limited research looks at the impact of customer satisfaction, especially within the Tokopedia market. Therefore, the purpose of this survey is to complete this space by looking at time linking, order status, order rights, and customer satisfaction as important E-LSQ systems. With this link, Tokopedia and other e-commerce platforms can explore where the service training equipment can be used to improve customer satisfaction.

2. Literature Review

E-Logistics Service Quality

E-logistics is a system that utilizes internet technology to help the logistics process. This system was created as a combination of e-commerce and the logistics industry. E-commerce provides an online platform to reach customers, while the logistics industry provides the infrastructure and expertise to deliver goods to customers (Budiman, n.d., 2022)

E- service quality, on the other hand, refers to the quality of services provided by a company through electronic or internet platforms. In the context of e-commerce, E-LSQ is essential because customers interact with companies online without talking to them in person. A good e-LSQ can increase customer satisfaction, loyalty, and retention, as well as encourage the growth of e-commerce businesses (Anggoro Wilis & Nurwulandari, 2020).

Meanwhile, E-logistic service quality (E-LSQ) is concerned with the quality of digitally delivered services. In the context of e-commerce, E-LSQ assesses the quality of logistics services provided via online platforms. E-LSQ is critical to customer happiness, loyalty, and business success. It entails satisfying consumer expectations and offering exceptional service throughout the online purchase process.

E-LSQ advancements have helped many internet merchants succeed. To keep up with the global economy, the logistics business and delivery systems are continually changing (Hong Vo Tuan Truong et al., 2023).

The importance of E-Logistics Service Quality, or E-LSQ, in e-commerce is becoming more widely acknowledged. Service quality is the primary factor that determines successful e-commerce since it is practically free, viable, and simpler to compare the technical characteristics of items online than it is through traditional channels. The purpose of the study is to determine whether a conceptual model of the factors influencing the quality of e-services is put out and examined (MR. D. Krishnamoorthy, 2021)

E-LSQ measurements generalize the timeliness, order condition, and order accuracy of the operation.

Factors Affecting E-Logistics Service Quality

Timeliness and Customer Satisfaction

Globalization and technological improvements make it easier for today's clients to find the things they desire. These clients are similarly impatient, so they want their orders to be fulfilled on time. Punctuality is one of the first quality characteristics identified in the literature for logistics services. It is defined as delivering client orders on time as promised (Akil & Ungan, 2022).

The period of time between the customer's order and the product being delivered to them is known as timeliness (Ridho et al., 2021). The impact of timeliness on customer satisfaction is significant. If the products that customers purchase can be delivered at the prearranged or specified time, they will be happy. According to the study's findings (Ridho et al., 2021), customer satisfaction is positively and significantly impacted by timeliness. This demonstrates that a company's ability to deliver items on time to its clients will increase customer satisfaction.

H1: There is a positive relationship between timeliness and customer satisfaction.

Order Condition and Customer Satisfaction

The order condition refers to whether the customer's orders arrive undamaged. The client values the condition of the provided items as well as the speed and completeness with which they are delivered. If the items are not properly safeguarded, they may be destroyed during shipping. Customers expect to receive the requested product undamaged. Otherwise, customers may opt for a different provider for their future purchases. As a result, it is vital to identify the components that may influence the order condition (Akil & Ungan, 2022).

Based on previous research (Uvet, 2020), we hypothesized a direct relationship between order condition and customer satisfaction.

H2: There is a positive relationship between order condition and customer satisfaction.

Order Accuracy and Customer Satisfaction

Customers prefer that the items they buy be delivered in the amount and quality indicated throughout the order process, with no alternative products received. Order accuracy is described as if the supplied items are the proper ones, in the correct amounts (Politis et al., 2014).

Order accuracy is a parameter relating to the correctness of the courier service for orders accepted from clients (Hendayani & Dharmawan, 2020). Previous studies (Akil & Ungan, 2022) in different sectors have found a positive relationship between order accuracy and customer satisfaction.

H3: There is a positive relationship between order accuracy and customer satisfaction.

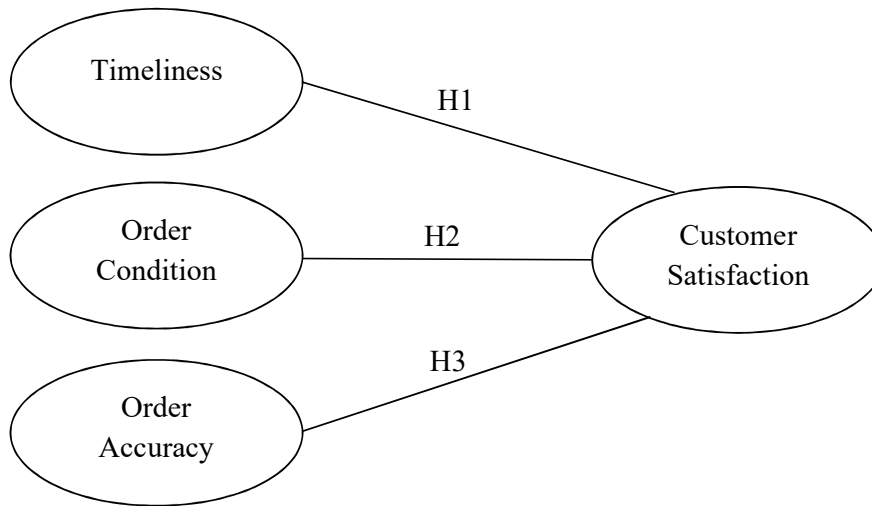
Customer Satisfaction

Customer satisfaction is defined as a result of the quality of service and means that it is positively related to the quality of the product or service provided to the customer. It is also believed that customer satisfaction has increased along with an increase in the quality level of products and services. In particular, customer satisfaction is a fundamental variable that describes the behavior of returning customers and their subsequent purchase of products and services (Tae YEO et al., 2015).

Customer satisfaction measures each person's level of satisfaction or dissatisfaction based on a comparison between the actual performance of the product and their expectations. Every business wants to satisfy its customers in order to survive. Customer satisfaction, as a consequence, is one of the most crucial elements in winning the competition (Hamzah et al., 2021).

Customer satisfaction is measured after the purchase in the event that the selected alternative meets or exceeds the customer's expectations, whereas dissatisfaction occurs when outcomes fall short of or are inconsistent with the expectations of the customer (Gunawan, 2022).

From these two viewpoints, it can be inferred that customer satisfaction stems from the assessment of customers following their usage of a good or service, with the expectations of the customers serving as the evaluation's factors.

**Fig. 1.** Research model

3. Research method

The study design employed the quantitative technique. A web-based survey was used to gather the data. The web-based survey was determined to be the most appropriate due to its benefits, which include access to different demographics and the ability to cover a vast geographic region at relatively low expenses in a short amount of time. (Akil & Ungan, 2022). The research utilized a survey method and applied inferential statistical analysis techniques, specifically Structural Equation Modeling (SEM). The population in this study is all Tokopedia customers. The sample is a group of Tokopedia customers who participated in the web-based survey.

Regarding the sample size, there are different approaches in the literature. In general, one or two signs are sufficient, but three indicators might be beneficial. Since redundant indications are less informative than one indicator of a hidden variable, more than three indicators are rarely used. The scale produced by different indicators may lead to more issues (Hayduk & Littvay, 2012).

There were three sections of the questionnaire that were used in this investigation. An overview of the study's goals and directions for completing the survey form were provided in the first section. This section required the prospective participants to spend ten to fifteen minutes completing an online, entirely optional, anonymous questionnaire.

The second section discussed the sample demographics and shopping behaviors of possible respondents. The research constructs used in this investigation are given in the third section. Timeliness (TM), Order Condition (OC), Order accuracy (OA), and Customer Satisfaction (CS) were the four components that were measured. These components were selected because our analysis showed them to be the most important logistical service process elements. A thorough literature review and the advice of experts and professionals were the sources of the elements in each construct. Table 3.1 lists the constructions that were examined in this study, along with the related objects (Akil & Ungan, 2022).

Table 3.1

The constructs included in this study and the items associated with them are presented here.

Timeliness
TM1: The time between placing an order and receiving the goods is quite fast.
TM2: The order arrived on time.
TM3: Orders are handled quickly.
TM4: There are rarely delays in order delivery.
Order Condition
OC1: The products I ordered were packed in good condition.
OC2: The product I ordered works well.
OC3: The condition of the order is in line with my expectations.
OC4: There are no defects in the product I ordered.
Order Accuracy
OA1: The product received was in accordance with my order.
OA2: The number of products is in accordance with my order.
OA3: The condition of the product received is good.
OA4: If the product I ordered is not available, Tokopedia will recommend another product that matches my order.
Customer Satisfaction
CS1: I can conveniently shop online anywhere and anytime.
CS2: I feel happy because the site looks neat and easy to use.
CS3: The products provided by Tokopedia are more complete than other applications.

All of the constructs were measured on a 5-point Likert-type scale as follows: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

4. Results and discussion

General data about the respondents, including gender, age, education level, occupation, place of residence, and the frequency of transactions the respondents make on Tokopedia each month, can be seen in tables. These data were gathered from 205 questionnaires that were distributed.

Table 4.1

Respondent Data by Gender

Gender	Total	Percentage
Male	120	58,5%
Female	85	41,5%
Total	205	100%

Table 4.1 shows that the largest number of respondents came from male respondents totaling 120 people or 58.5%, while female were 85 people or 41.5%.

Table 4.2

Respondent Data by Age

Age	Total	Percentage
17 – 25 years old	119	58%
26 – 35 years old	61	29,8%
36 – 50 years old	23	11,2%
>50 years old	2	1%
Total	205	100%

Table 4.2 shows that the largest respondents came from respondents aged 17-25 years old with 119 people or 58%, other respondents aged 26-35 years old with a total of 61 people or 29%, and the rest of the respondents aged less than 50 years and over 50 years old respectively 23 people and 2 people or 11.2% and 1%.

Table 4.3

Respondent Data by Education Level

Education Level	Total	Percentage
High School/Equivalent	59	28,8%
D1 – D4	21	10,2%
S1	113	55,1%
S2	12	5,9%
Total	205	100%

Table 4.3 shows that the largest respondents came from respondents with S1 education with a total of 113 people or 55.1%, then high school/equivalent education amounted to 59 people or 28.8%, then D1 - D4 education amounted to 21 people or 10.2% and S2 educated amounted to 12 people or 5.9%.

Table 4.4

Respondent Data by Occupation

Education Level	Total	Percentage
College Students	94	45,9%
Private Employees	64	31,2%
Entrepreneurial	24	11,7%
Civil Servants	20	9,8%
Others	3	1,4%
Total	205	100%

Table 4.4 shows that the largest respondents came from respondents with jobs as students amounting to 94 people or 45.9%, respondents with jobs as private employees as many as 64 people or 31.2%, respondents with jobs as entrepreneurs amounting to 24 or 11.7%, respondents with jobs as civil servants amounting to 20 or 9.8%. And respondents with other jobs were 3 people or 1.4%.

Table 4.5

Respondent Data by Transactions via Tokopedia in a month

Transaction Count	Total	Percentage
1 times	33	16,1%
2 times	46	22,4%
3 times	47	22,9%
4 times	31	15,1%
5 times	20	9,8%
>5 times	28	13,7%
Total	205	100%

Table 4.5 shows that the largest respondents came from respondents with 3 transactions totaling 47 people or 22.9%, then respondents with 2 transactions totaling 46 people or 22.4%, then respondents with 1 transaction number of 33 people or 16.1%, respondents with 4 transactions totaling 31 people or 15.1%, and respondents with a total of >5 transactions totaling 28 people or 13.7%. Meanwhile, the smallest number of respondents with the number of transactions 5 times amounted to 20 people, or 9.8%.

Evaluation of measurement model (Outer Model)

The outer model is a measurement model to see each indicator that has a relationship with other variables. The outer model is used to test validity and reliability. Below is the path diagram of this research model.

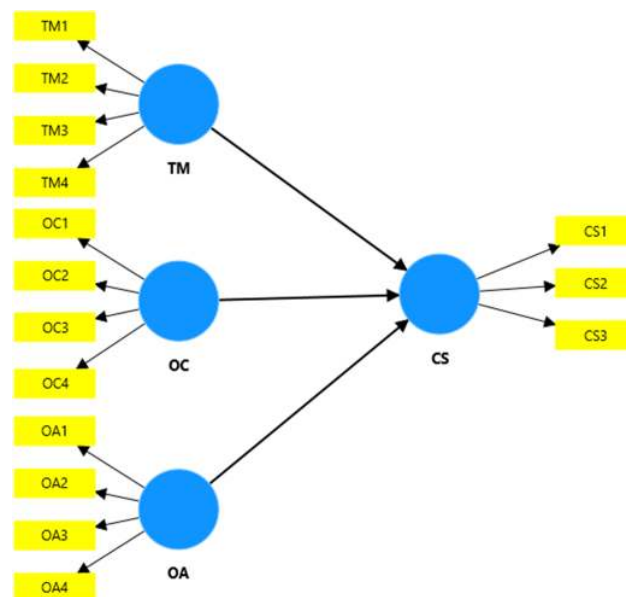


Fig. 2. Path diagram

The merger of measurement models and structural models into a single diagram is called a path diagram. The path diagram connects between variables, namely Timeliness (X1), Order Condition (X2), and Order Accuracy (X3) as exogenous variables, and Customer Satisfaction (Y) as endogenous variables. The single arrow shows the causal relationship between exogenous variables and endogenous variables. According to (Hair et al., n.d.) stated that the tests carried out on the outer model are as follows:

Convergent validity

Convergent validity is a measure that is positively correlated with an alternative measure of the same construct. Each item must be able to achieve a valid construct. To evaluate convergent validity, the researchers considered the values of outer loadings and Average Variance Extracted (AVE). Below are the outer loadings values for the Timeliness (X1), Order Condition (X2), and Order Accuracy (X3), and Customer Satisfaction (Y) constructs.

Outer Loadings

	CS	OA	OC	TM	Information
CS1	0.821				Valid
CS2	0.795				Valid
CS3	0.838				Valid
OA1		0.737			Valid
OA2		0.739			Valid
OA3		0.666			Valid
OA4		0.789			Valid
OC1			0.718		Valid
OC2			0.689		Valid
OC3			0.766		Valid
OC4			0.719		Valid
TM1				0.824	Valid
TM2				0.757	Valid
TM3				0.857	Valid
TM4				0.749	Valid

Based on the table of the results of the outer loading test on the Customer Satisfaction (Y) variable above, 3 items of statement have an outer loading value of > 0.7 which indicates that the item of the statement is valid and can be used for further tests. Then in the Timeliness variable (X1) there are 4 statements that have an outer loading value of > 0.7 which indicates that the statement item is valid and can be used for further tests.

Furthermore, in the variable Order Condition (X2) there are 3 statements that have an outer loading value of > 0.7 which indicates that the statement item is valid and can be used for further tests, while there is 1 statement item that has an outer loading value of < 0.7 (OC2) but the AVE value produced < 0.5 , then it can be said that 1 item of the statement is valid and can be used for further tests. Then the Order Accuracy (X3) variable has 3 statements that have an outer loading value of > 0.7 which indicates that the statement item is valid and can be used for further tests, while there is 1 statement item that has an outer loading value of < 0.7 (OA3) but the AVE value produced < 0.5 , then it can be said that 1 statement item is valid and can be used for further tests.

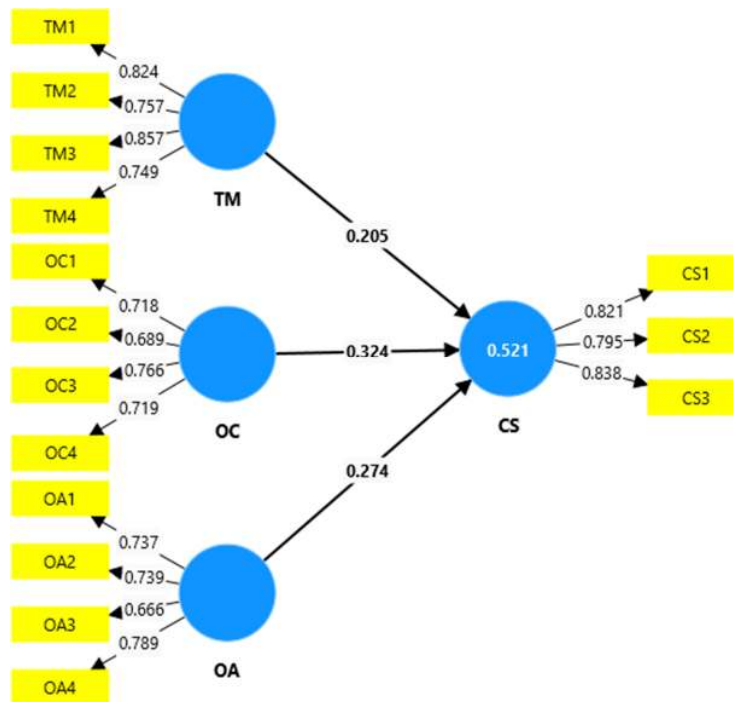


Fig. 3. Outer model

In addition to evaluating the value of outer loadings, the researcher also considered the value of Average Variance Extracted (AVE). The AVE score is said to be valid if it has a > value of 0.5. Below are the AVE values of each variable.

Average Variance Extracted (AVE)

Variable	Average variance extracted (AVE)
CS	0.670
OA	0.539
OC	0.524
TM	0.637

Based on the table of AVE test results above, all indicators used to measure variables in this study have a > value of 0.50 so it is said to be valid and acceptable.

Discriminant validity

Discriminant validity is a construct that is considered different from other constructs based on empirical standards. To evaluate the discriminant validity, the researcher considered cross-loading factors and the fornell-larcker criterion. The Fornell-Larcker criterion is interpreted as a measure that compares the square root of the AVE value with the latent variable relationship. Thus, the square root value of each AVE construct must be greater than its correlation value with other constructs (Sukma Jaya et al., 2021). Below are the fornell-larcker

criterion values for the Timeliness (X1), Order Condition (X2), and Order Accuracy (X3), and Customer Satisfaction (Y) constructs.

Fornell-Larcker Criterion

Variable	CS	OA	OC	TM
CS	0.818			
OA	0.643	0.734		
OC	0.679	0.749	0.724	
TM	0.613	0.620	0.737	0.798

The Square Root AVE value shows that CS has a value of 0.818, OA has a value of 0.734, OC has a value of 0.749, and TM has a value of 0.798. The construction correlation shows that CS has a correlation of 0.643 with OA, 0.679 with OC, and 0.613 with TM. Meanwhile, OA has a correlation of 0.749 with OC, 0.620 with TM, and OC has a correlation of 0.737 with TM. The evaluation of the Fornell-Larcker Criterion shows that CS with OA ($0.643 < 0.734$), CS with OC ($0.679 < 0.749$), and CS with TM ($0.613 < 0.798$) meet the criteria. However, OA with OC had the same correlation ($0.749 < 0.749$), OA with TM ($0.620 < 0.798$), and OC with TM ($0.737 < 0.798$) also met the criteria.

In addition to evaluating the value of the Fornell-Larcker criterion, the researcher also considered the cross-loading value. Cross-loadings are a measure that indicates that the outer loading value of the indicator on the related construct must be greater than the cross-loading value on other constructs. Below are the cross-loading values of each variable construct.

Cross-Loading

	CS	OA	OC	TM
CS1	0.821	0.530	0.613	0.548
CS2	0.795	0.457	0.471	0.427
CS3	0.838	0.580	0.570	0.517
OA1	0.394	0.737	0.620	0.435
OA2	0.403	0.739	0.561	0.490
OA3	0.334	0.666	0.456	0.372
OA4	0.649	0.789	0.566	0.504
OC1	0.492	0.448	0.718	0.430
OC2	0.461	0.524	0.689	0.599
OC3	0.446	0.556	0.766	0.684
OC4	0.551	0.625	0.719	0.447
TM1	0.412	0.485	0.637	0.824
TM2	0.439	0.409	0.461	0.757
TM3	0.565	0.521	0.565	0.857
TM4	0.512	0.550	0.686	0.749

Based on the test results of the cross-loading, it shows that all the outer loading values of the indicators on the related construct are greater than the cross-loading values on other constructs. It can be concluded that all constructs have good discriminant validity.

Composite Reliability dan Cronbach Alpha

(Hair et al., n.d.) states that the composite reliability value should be > 0.70 even though a value of 0.60 is still acceptable. A construct can be said to have a high reliability value if the composite reliability value > 0.70 . Reliability is related to the accuracy and accuracy of the measurement. Reality testing was carried out to test whether the data obtained from the research instrument showed adequate internal consistency. The reality test in this study was carried out by looking at Cronbach's Alpha value. A research instrument is said to be reliable if the value of Cronbach's Alpha > 0.60 . Therefore, the decision-making criteria in the reality test are as follows:

- If Cronbach's Alpha score > 0.60 , then the question items in the questionnaire are reliable.
- If Cronbach's Alpha score < 0.60 , then the question items in the questionnaire are not reliable.

	Cronbach's alpha	Composite reliability (rho_c)
CS	0.755	0.859
OA	0.727	0.823
OC	0.697	0.815
TM	0.810	0.875

Based on the results of the composite reliability and cronbach alpha tests, it was shown that all constructs in this study met the minimum value requirement limit of > 0.60 . The results of the composite reliability test show that all variables have adequate internal consistency in measuring a consruk. In addition, the reliability test in this study is also strengthened by the results of cronbach alpha so that it can be concluded that all the constructs in this study are reliable and can be further analyzed.

Evaluation of structural model (Inner Model)

An inner model is interpreted as a model that tests causality among variable constructs. According to (Hair et al., n.d.) stated that the tests carried out on the inner model are as follows:

R²

R² is the most common measure used to evaluate the inner model is the coefficient of determination (R²). R² is a predictive power model that is calculated as a square correlation between the actual value and the predicted construction of a given endogen. R² represents the combined effect of exogenous latent variables on endogenous latent variables. Thus, R² represents the amount of variance in an endogenous construct described by all exogenous constructs associated with it. The R square values include 0.75 (strong), 0.50 (moderate), and 0.25 (weak). Below are the values of R² as follows:

	R-square	R-square adjusted
CS	0.521	0.514
Information	Moderate	Moderate

Based on the results of the R^2 test, Timeliness (X1), Order Condition (X2), and Order Accuracy (X3), and Customer Satisfaction (Y) affect Customer Satisfaction (Y) with an R^2 value of 0.521 (moderate). This shows that 52.1% Customer Satisfaction (Y) can be affected by Timeliness (X1), Order Condition (X2), and Order Accuracy (X3). The rest, around 47.9%, can be influenced by other variables.

For this adjusted R^2 value, it shows that about 51.4% of the variation of the dependent variable can be explained by the independent variable. This value is more accurate than R^2 because it recognizes that the addition of independent variables can increase the R^2 value disproportionately.

Path Coefficients

Path coefficients are a model for looking at the direction of hypothetical relationships. Path coefficients have a standard value of -1 to +1 (the indigo can be smaller or larger but generally falls between those boundaries). Path coefficients that have a value closer to +1 show a strong positive relationship and vice versa for negative values. Below are the values of the path coefficients as follows:

	CS	OA	OC	TM
CS				
OA	0.274			
OC	0.324			
TM	0.205			

1. Customer Satisfaction with Timeliness

The path coefficient value of 0.205 shows that every change of one standard deviation in the TM variable will cause a change of 0.205 standard deviation in the CS variable. This means that TM has a positive influence on CS.

2. Customer Satisfaction with Order Condition

A path coefficient value of 0.324 indicates that every change of one standard deviation in the OC variable will cause a change of 0.324 standard deviation in the CS variable. This means that OC has a positive influence on CS.

3. Customer Satisfaction with Order Accuracy

The path coefficient value of 0.205 shows that every change of one standard deviation in the TM variable will cause a change of 0.205 standard deviation in the CS variable. This means that TM has a positive influence on CS.

Based on the test, path coefficients showed that OA, OC, and TM had a positive influence on CS. However, keep in mind that a larger path coefficient value indicates a stronger influence. Therefore, OC has a stronger influence on CS compared to OA and TM.

T-Statistics

T-Statistics in the inner model test is useful for testing the significance of the hypothesis. Hypothesis testing can be seen from the output of bootstrapping. The following results of the bootstrapping output test can be seen in the image below:

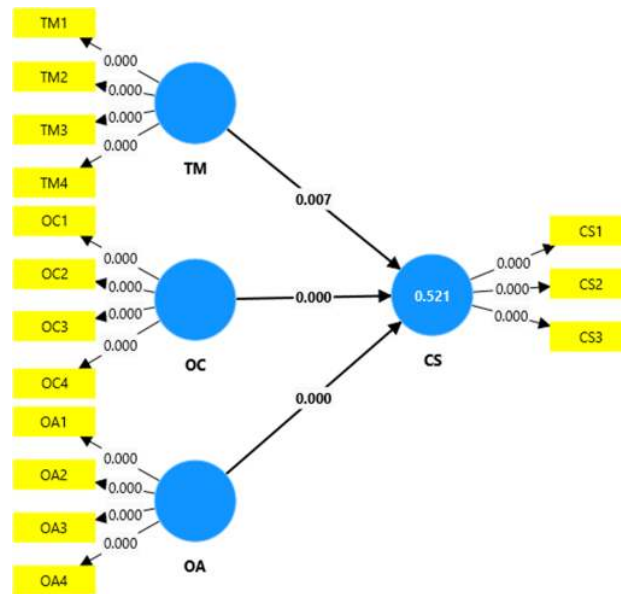


Fig. 4. Bootstrapping

In the hypothesis test, if using an alpha level of 5%, the critical value on T-Statistics is 1.96. This means that if the value obtained is in the range of $-1.96 < \text{T-Statistics} < 1.96$, then the hypothesis is not significant. And vice versa, if the T-Statistics value < -1.96 or > 1.96 , then the hypothesis is significant. The results of the hypothesis test can be seen in the following table.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
OA -> CS	0.274	0.278	0.078	3.485	0.000
OC -> CS	0.324	0.329	0.089	3.617	0.000
TM -> CS	0.205	0.203	0.076	2.712	0.007

Based on the results of the hypothesis test that the values of H1, H2, and H3 have exceeded the value of 1.96, the hypothesis is accepted, The explanation is:

1. Hypothesis Testing 1: Timeliness has a significant positive influence on Customer Satisfaction

Based on the results of hypothesis 1 testing, the value of the Timeliness beta coefficient on Customer Satisfaction is 0.205 (positive). This can be interpreted that the higher the Timeliness value, the higher the Customer Satisfaction value. An increase of one unit of Timeliness will increase Customer Satisfaction by 20.5%. In addition, the results of the hypothesis test have a T-Statistics value of 2.712. This shows that the hypothesis has a significant influence because the T-Statistics value > 1.96 with a p-value of < 0.05 , so it can be concluded that Timeliness has a significant positive influence on Customer Satisfaction so that **H1 is accepted**.

2. Hypothesis Testing 2: Order Condition has a significant positive influence on Customer Satisfaction

Based on the results of hypothesis 2 testing, the value of the Order Condition beta coefficient to Customer Satisfaction is 0.324 (positive). This can be interpreted that the higher the Order Condition value, the higher the Customer Satisfaction value. An increase in one unit of Order Condition will increase Customer Satisfaction by 32.4%. In addition, the results of the hypothesis test have a T-Statistics value of 3,617. This shows that the hypothesis has a significant influence because the T-Statistics value > 1.96 with a p-value of < 0.05 , so it can be concluded that the Order Condition has a significant positive influence on Customer Satisfaction so that **H2 is accepted**.

3. Hypothesis 3: Order Accuracy has a significant positive influence on Customer Satisfaction

Based on the results of hypothesis 3 testing, the value of the Order Condition beta coefficient to Customer Satisfaction is 0.274 (positive). This can be interpreted that the higher the Order Accuracy value, the higher the Customer Satisfaction value. An increase in one unit of Order Accuracy will increase Customer Satisfaction by 27.4%. In addition, the results of the hypothesis test have a T-Statistics value of 3,485. This shows that the hypothesis has a significant influence because the T-Statistics value > 1.96 with a p-value of < 0.05 , so it can be concluded that the Order Condition has a significant positive influence on Customer Satisfaction so that **H3 is accepted**.

5. Conclusion

Based on the results of hypothesis testing, it can be concluded that the three variables tested, namely Timeliness, Order Condition, and Order Accuracy, have a significant positive influence on Customer Satisfaction.

1. Timeliness shows a 20.5% increase in customer satisfaction when timeliness is improved. This result is supported by a T-statistic value of 2.712, which is greater than 1.96, and a p-value smaller than 0.05, so H1 is accepted. In addition, customers will be more satisfied if their orders are delivered on time. Customer perception and satisfaction can be disrupted by late deliveries.
2. Order Condition also has a significant positive effect on customer satisfaction; a one-unit increase in order conditions will increase customer satisfaction by 32.4%, as indicated by the T-statistic value of 3.617, which is greater than 1.96, and a p-value smaller than 0.05, so H2 is accepted. It can also mean that customers expect the product to arrive in good condition, and dissatisfaction can be caused by damage or defects.
3. Order Accuracy increases customer satisfaction by 27.4% with a one-unit increase in order accuracy, which indicates H3 is accepted. The T-statistic value of 3.485, which is also greater than 1.96, and a p-value smaller than 0.05, indicate that H3 is accepted. In addition, correct and complete orders are essential for customer satisfaction. Errors such as missing items or wrong products can significantly reduce customer satisfaction.

Overall, the results of testing this hypothesis show that these three factors are important determinants in significantly increasing customer satisfaction.

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