Jurnal Manajemen Pendidikan *Volume 13, No. 01, 2025, halaman 120 - 126*
https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

THE INFLUENCE OF DELIVERY SPEED AND TIMELINESS ON CUSTOMER SATISFACTION ON THE TRANSPORTATION SERVICES OF CV. PERDANA EXPRESS RANTAU PRAPAT

Masrina Tanjung[a*)], Sri Ayla [a)], M.Rusdi [a)]

[a)] *Universitas Al-Washliyah Labuhanbatu, Labuhanbatu, Indonesia*

[*)]*e-mail korespondensi: masrinatanjung4@gmail.com,*

Article history: *received 21 February 2025; revised 02 March 2025; accepted 24 March 2025*

Abstract. The aim of this study is to ascertain whether customer satisfaction with the CV is significantly impacted by the speed at which customer goods are delivered and whether they arrive at the destination on time. Transportation services offered by Perdana Express. Quantitative methodologies are used in the study. Interviews and observation are the methods utilized to get data. In this study, 82 respondents/customers made up the sample. Simple random sample with a 5% significance level is the method used for sampling. Utilizing statistical methods and SPSS, the data analysis approach examines the validity and reliability of surveys and performs multiple linear regression analysis using the T and F tests to support the hypothesis. Research findings indicate that the timeliness variable has a close/significant impact on customer satisfaction (Y) in CV transportation services, while the delivery speed variable has a close/significant impact on customer satisfaction. At Perdana Express Rantauprapat, delivery timeliness and speed account for 98.3% of the total, with other variables and factors influencing the remaining 1.7%.

Keywords: delivery speed; timeliness; customer satisfaction.

I. INTRODUCTION

Punctuality and the speed at which items are delivered have become essential components of contemporary logistics services, particularly in the digital age when customers have high demands for dependable and quick services. Customer loyalty, trust, and satisfaction are influenced by these two elements. While delivery speed that surpasses client expectations increases customer happiness and fortifies long-term relationships, timely delivery demonstrates the company's dependability and provides value to the brand. In contrast to PT SiCepat and Ninja Express, which have effectively increased their competitiveness through real-time tracking technology and integrated delivery management, research indicates that logistics businesses that prioritize speed and timeliness continue to provide delayed services. This demonstrates that spending money on top-notch services increases client loyalty. CV. Rantauprapat-based Perdana Express, a transportation service provider, has comparable difficulties competing with regional and national logistics firms. CV. Perdana Express can increase customer happiness, foster loyalty, and broaden its market reach in the Rantauprapat region and beyond by prioritizing delivery speed and accuracy. Thus, the purpose of this study was to examine how customer satisfaction with CV. Perdana Express Rantauprapat's transportation services is impacted by the promptness of arrival at the destination and the speed at which client items are delivered.

Goals of the Research

The aim of this study is to ascertain:

1. To ascertain whether or not customer satisfaction with CV. Perdana Express Rantauprapat's transportation service is significantly impacted by the pace at which customer items are delivered.
2. To ascertain how client satisfaction with CV. Perdana Express Rantauprapat's transportation services is impacted by punctuality in arriving at the destination.
3. To ascertain how customer satisfaction with CV. Perdana Express's transportation services is impacted by the promptness of delivery of client items and on-time arrival at the destination.

There doesn't appear to be any text available for translation. I would be pleased to help you, so please share the text you would like me to translate!

Speed of Delivery (X1)

Since delivery speed is one indicator of operational efficiency in contemporary logistics systems, it is crucial. According to Riley and Klein (2019), the speed of goods delivery is the time interval that encompasses the period for transporting the order until it reaches the desired position by the consumer. Factors that influence it include Efficient Route Planning, Use of Logistics Technology, Availability of Fleet and Infrastructure, Good Operational Management, with indicators being Delivery Duration,

https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

Timeliness of Delivery, Ease of Tracking Access, and Condition of Goods Upon Receipt. Factors that influence include Efficient Route Planning, Use of Logistics Technology, Availability of Fleet and Infrastructure, Good Operational Management, with indicators such as Delivery Duration, Timeliness of Delivery, Ease of Tracking Access, Condition of Goods Upon Receipt.

Timeliness (X2)

Brillyan Jaya Sakti Journal (2018),Delivery time is the period from when the customer orders the product until the product arrives at the customer (Aminah et al., 2017). Factors that influence include service quality, the timeliness of delivery itself, and the facilities provided by the company, with indicators being Warranty, Price Suitability, and Responsibility.

Client Contentment (Y)

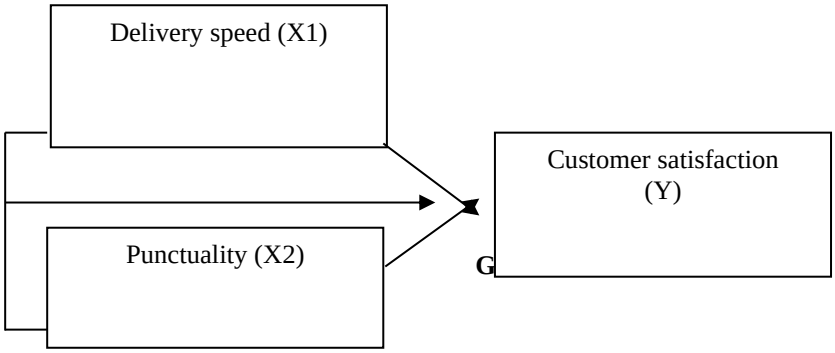
Tjiptono (2015) defines that customer satisfaction is a central concept in the discourse of business and management. The consequences of customer satisfaction are crucial for businesses, the government, and consumers alike. For businesspeople, satisfaction is viewed as one of the dimensions of market performance (Rumiyati, R., & Syafarudin, A., 2021). According to Priyowibowo et al. (2022), the factors that influence are service quality, price, and product quality. According to Tjiptono (2014:101), the indicators of customer satisfaction are the alignment of expectations and the interest in returning. Partnership The speed of delivery of goods affects customer satisfaction. According to research published in the Sosio Ekons Journal by Indraprasta PGRI University, the speed of delivery and the quality of service simultaneously have a significant impact on customer satisfaction. The results of the determination test show that these two variables affect consumer satisfaction by 54%, while the remaining portion is influenced by other variables.

The relationship between timeliness and customer satisfaction

According to research published in the Management Journal by Diponegoro University, the timeliness of delivery has a positive and significant impact on customer satisfaction. The test results show that the regression coefficient for this variable is 0.500, with a t-value of 9.379 and a significance level of 0.000. This indicates that the more timely the deliveries made by the company, the higher the level of satisfaction felt by the customers.

Research Model

In this study, it illustrates the relationship between independent variables, namely delivery speed and punctuality, with the dependent variable, which is customer satisfaction.



Research Model on the Effects of Timeliness and Delivery Speed on Customer Satisfaction

There doesn't appear to be any text to translate. Kindly send me the text you want translated, and I'll be pleased to help!. Theory A hypothesis is a short-term, most probable assumption that still requires confirmation. The following hypothesis is based on the relationship between the variables in this study:

1. It is believed that customer satisfaction with CV. Perdana Express Rantauprapat's transportation services is influenced by the speed at which client items are delivered.
2. It is believed that client satisfaction with CV. Perdana Express Rantauprapat's transportation services is influenced by prompt delivery to the destination.
3. It is believed that customer satisfaction with CV. Perdana Express Rantauprapat's transportation services is influenced by the promptness of delivery of client goods and on-time arrival at the destination.

II. METHOD RESEARCH

Type and Source of Data

This study employs an associative-causality approach and a quantitative methodology. Numerical data is used in the quantitative approach. Causal associative research, according to Hasan (2017), is a study that examines the relationship between two variables or the ways in which one variable (X) influences another (Y). Population, Sampling Method, and Sample Size A total of 103 clients of the Prima Baja Aek Tapa Rantauprapat building supplies store make up the study's population, while 82 respondents/customers of the CV Perdana Express Rantauprapat transportation service make up the sample. Random sampling using the Slovin formula at a 5% significance level is the method employed.

https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

Method of Data Collection, Observation and interviews are the methods used to collect data. In the interviews, customers of the CV, Perdana Express Rantauprapat transportation service are asked questions and given questionnaires with a Likert scale in the form of checklists. These questionnaires also have the following weight values:

Table 1. Skala Likert

descriptive	Score
Strongly agree (SA)	5
Agree (A)	4
Disagree (DS)	3
Disagree (DS)	2
Strongly disagree (SD)	1

The generated questionnaire is then put through validity and reliability testing with SPSS 22.0 to determine its viability. Method of Data Analysis The validity and reliability of the questionnaire are tested using statistical methods in this study's data analysis. Multiple linear regression analysis is then performed, and T-tests and F-tests are used to support the hypothesis. The purpose of multiple linear regression analysis is to ascertain how the independent variables—which have more than one number—relate to the dependent variable. The multiple linear regression model must first undergo testing for classical assumptions. The tests for normality, multicollinearity, and heteroscedasticity are performed as follows:

Data from the Normality Test Finding out if a dataset's distribution resembles or follows a normal distribution is the goal of the normality test. A normal probability plot graph is one of two techniques used in this normality test to ascertain whether or not the data distribution is normal. If the data's personal branding does not veer to the left or right, the histogram technique indicates that the data is regularly distributed. If the points in the graphical method follow the data along the diagonal line, the data is regularly distributed. Test of Multicollinearity used to determine if there is a high or strong correlation between the independent variables in a regression. Multicollinearity arises when the independent variables are correlated, and vice versa. The independent variables in a decent regression model shouldn't be correlated. The VIF between independent variables and the tolerance value are examined in order to perform multicollinearity testing. Tolerance < 0.10, or VIF > 0.10, is the generally used criterion to show the presence of multicollinearity. 10. Test of Heteroskedasticity This test aims to determine whether the regression model exhibits unequal variance of the residuals from one observation to another. If the variance remains constant, it is called homoscedasticity; conversely, if the variance differs, it is called heteroscedasticity. The presence or absence of heteroscedasticity can be determined by examining the scatterplot graph between the predicted values of the independent variable and the residual values. The presence or absence of heteroscedasticity can be determined by examining the scatterplot between the predicted values of the independent variable and the residual values. Multiple Linear Regression Analysis

Multiple Linear Regression Analysis

This analysis is conducted to determine the extent of the influence of delivery speed (X1) and punctuality (X2) on customer satisfaction (Y), where the multiple linear equation is as follows:

Y is equal to a + b1x1 + b2x2.

Testing Hypotheses

Test of Partial Significance (T Test)

The t-statistic test is conducted to examine whether the independent variable (X) individually has a significant relationship or not with the dependent variable (Y). The hypothesis formulation to be tested is as follows:

1) H0 is accepted if ttabel>thitung: meaning there is no significant influence from the independent variable partially on the dependent variable.
2) Ha is accepted if thitung>ttabel: it means there is a significant influence from the independent variable partially on the dependent variable.

Simultaneous Significance Test (F Test)

Static Testing The F test in the multiple regression model is conducted to determine whether all independent variables together have an effect on the dependent variable. As for The criteria for hypothesis testing according to Sugiyono (Sugiyono, 2012) are as follows:

1) Accept H0 (reject Ha) if Fcount < Ftable: this means there is a significant simultaneous effect of the independent variable on the dependent variable.
2) Reject H0 (accept Ha) if Fhitung>Ftabel: it means there is a significant simultaneous effect of the independent variable on the dependent variable.

Coefficient of Determination

The testing of the coefficient of determination (R2) will show the extent of the contribution of the independent variable to the dependent variable.

https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

III. RESULT AND DISCUSSION

Results of Validity and Reliability Tests

It seems there is no text to translate. Please provide the text you would like me to translate into English.The results of the validity and reliability tests can be seen as follows:

Table 2 Results of Validity and Reliability Tests

Variable	concrate	Corrected Validitas Corrected Item (R Hitung)	Rtable 5%(80)	Descriptive	Cronbach's Alpha > 60	Status
Delivery Speed (X1)	X1.1	0,220	0,217	Valid	0,757	Reliabel
	X1.2	0,662	0,217	Valid		
	X1.3	0,701	0,217	Valid		
	X1.4	0,627	0,217	Valid		
	X1.5	0,582	0,217	Valid		
	X1.6	0,404	0,217	Valid		
	X1.7	0,605	0,217	Valid		
	X1.8	0,605	0,217	Valid		
	X1.9	0,487	0,217	Valid		
	X1.10	0,675	0,217	Valid		
Timeliness (X2)	X2.1	0,687	0,217	Valid	0,805	Reliabel
	X2.2	0,587	0,217	Valid		
	X2.3	0,668	0,217	Valid		
	X2.4	0,663	0,217	Valid		
	X2.5	0,655	0,217	Valid		
	X2.6	0,338	0,217	Valid		
	X2.7	0,561	0,217	Valid		
	X2.8	0.611	0,217	Valid		
	X2.9	0,687	0,217	Valid		
	X2.10	0,526	0,217	Valid		
Customer Satisfaction (Y)	Y.1	0,343	0,217	Valid	0,761	Reliabel
	Y.2	0,588	0,217	Valid		
	Y.3	0,699	0,217	Valid		
	Y.4	0,676	0,217	Valid		
	Y.5	0,647	0,217	Valid		
	Y.6	0,372	0,217	Valid		
	Y.7	0,586	0,217	Valid		
	Y.8	0,606	0,217	Valid		
	Y.9	0,486	0,217	Valid		
	Y.10	0,556	0,217	Valid		

According to Table 2, if Rhitung > Rtabel for each statement, then all of the statements are true. Next, it can be concluded that all claims are dependable if the Cronbach's alpha value is greater than 0.60.

The Classical Assumption Test's findings

Test of Normalcy

In this instance, the Normality Test is used to determine whether or not the independent and dependent variables have a normal distribution. Here, we describe how to perform the normalcy test:

Table 3 Normality test

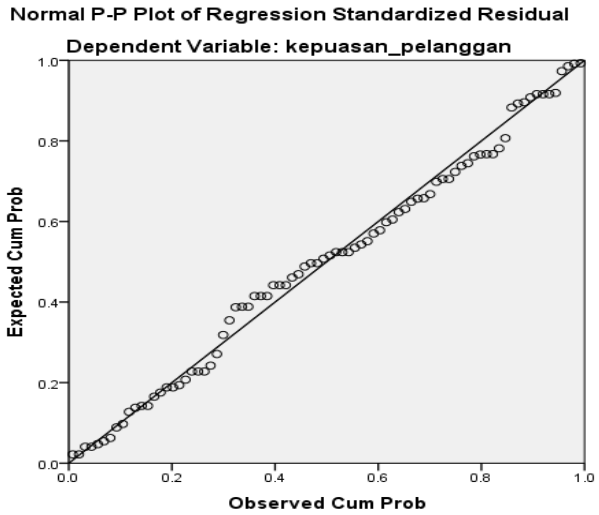
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Predicted Value
N		82
Normal Parameters[a,b]	Mean	40.7195122
	Std. Deviation	4.19897318
Most Extreme Differences	Absolute	.090
	Positive	.050
	Negative	-.090
Test Statistic		.090
Asymp. Sig. (2-tailed)		.096[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

Table 3 shows that the asymp.sig value (0.096) is greater than the alpha value (0.05), so this normality test is declared to be normally distributed.



The image above shows the points following a diagonal line, whether they follow or do not spread.This indicates that this test follows a normal distribution.

Multicollinearity Test

Table 4. Multicollinearity Test Results

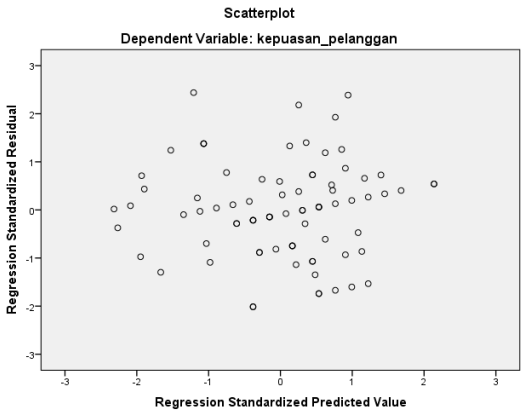
Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	delivery speed	.088	11.301
	on_time	.088	11.301

a. Dependent Variable: customer_satisfaction

Table 4 shows the Tolerance values of x1 and x2 (0.88) which are greater than 0.1 as well as the VIF values of x1 and x2 (11.301).Less than 10.Then the test is said to not have multicollinearity.

Heteroskedasticity Test



From the image above, the researcher observed that the points are scattered above and below the point x 0 on the Y and X axes, so it can be concluded that there is no heteroscedasticity.

Jurnal Manajemen Pendidikan *Volume 13, No. 01, 2025, halaman 120 - 126*
https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

Results of Multiple Linear Regression Analysis

Table 5. Results of Multiple Linear Regression Calculation and T-Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.608	.620		2.593	.011
	delivery speed	.372	.050	.366	7.472	.000
	on_time	.590	.045	.636	12.968	.000

a. Dependent Variable: customer_satisfaction

From the table above, the following values were obtained:
a (constant) : 1.608
b1x1 : 0.372
b2x2 : 0.590
then the multiple linear regression equation for customer friendliness and product availability is:
Y = a + b1x1 + b2x2
Y = 1.608 + 0.372 + 0.590
From the equation above, it can be seen that the consumer friendliness variable (X1) has a positive b coefficient and the product completeness variable (X2) has a positive b coefficient.

Partial T-Test

Using the t-test, individual hypothesis testing seeks to affect each independent variable X on Y. By comparing t-observed and t-table, hypothesis testing may be ascertained. Table 5 above displays the t-test findings, from which the following conclusion can be drawn:

1. t_hitung 7.472 > t_tabel of (1.990) since t_hitung is 7.472 based on the delivery speed variable. H0 is rejected if thitung > ttabel, indicating a strong/significant relationship between the Delivery Speed variable and customer satisfaction (Y) in CV. Perdana Express Rantauprapat's transportation services.
2. Thitung is (12.968) based on the punctuality variable; so, thitung (12.968) > ttabel (1.990). H0 is rejected if thitung > ttabel, indicating a strong/significant relationship between the customer satisfaction (Y) and punctuality variable in CV. Perdana Express Rantauprapat's transportation services.

The t-value (12.968) is based on the punctuality variable; so, t-value (12.968) > t-table (1.990). H0 is rejected because t-value > t-table, indicating a strong/significant relationship between customer satisfaction (Y) and the timeliness variable in CV. Perdana Express Rantauprapat's transportation service. There doesn't appear to be any text to translate. Kindly send me the text that you want translated.

F Test (Simultaneous)

Table 6. F-Test Results (Simultaneous Test)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1428.141	2	714.071	2311.254	.000[b]
	Residual	24.407	79	.309		
	Total	1452.549	81			

a. Dependent Variable: customer_satisfaction
b. Predictors: (Constant), delivery speed on_time

Based on the table, it can be seen that Fhitung = 2311.254, Ftabel = 3.112 with a significance of 0.000,Thus, the calculated significance (0.000) < table significance (0.05), so H0 is rejected.It can be concluded that variables X1 and X2 simultaneously affect customer satisfaction in the transportation services of CV. Perdana Express Rantauprapat. Coefficient of Determination

Table 7. Determinant Coefficient

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.992[a]	.983	.983	.55584

a. Predictors: (Constant), delivery speed on_time
b. Dependent Variable: customer_satisfaction

https://journal.unpak.ac.id/index.php/jmp *e-ISSN: 2614-3313 ; p-ISSN: 2302-0296*
DOI : https://doi.org/10.33751/jmp.v13i1.11869 *Penerbit: Sekolah Pascasarjana, Universitas Pakuan*

Delivery speed and punctuality have a 98.3% influence, according to the R Squared value test result of 0.983, or 98.3%; other factors and variables account for the remaining 1.7%.

1. Since t_hitung is 7.472 based on the delivery speed variable, t_hitung 7.472 > t_tabel of (1.990). H0 is rejected if thitung > ttabel, indicating a strong/significant relationship between the Delivery Speed variable and customer satisfaction (Y) in CV. Perdana Express Rantauprapat's transportation services.
2. The t-value (12.968) is greater than the t-table value (1.990) since it is based on the punctuality variable. The purchase decision (Y) in the transportation services of CV. Perdana Express Rantauprapat is strongly/significantly influenced by the timeliness variable, as indicated by the rejection of H0 if the t-value is greater than the t-table value.
3. The R Squared value test result is 0.983, or 98.3%, meaning that delivery speed and punctuality have a 98.3% influence, with other variables and factors accounting for the remaining 1.7%.

IV.CONCLUSSION

The conclusion of this research is: 1. Customer satisfaction (Y) and the delivery speed variable have a strong/significant relationship in CV. Perdana Express Rantauprapat's transportation services. 2. When it comes to CV. Perdana Express Rantauprapat's transportation services, the timeliness element has a strong/significant impact on the choice to buy (Y). Delivery speed and product timeliness account for 98.3% of the total, with other factors and variables influencing the remaining 1.7%. Advice 1. To sustain customer and community satisfaction, the pace of goods delivery must be consistently maintained, according to the research's recommendation. 2. One requirement that transportation service providers must meet is timeliness. 3. In order to improve client satisfaction, delivery speed and timeliness must constantly be given top priority.

REFERENCES

Febriani, M. H. D. (2024). *Analisis Kecepatan Pengiriman, Akurasi Pelacakan dan KualitasPelayanan Terhadap Kepuasan Pelanggan*. *1*(4), 1–8.

Hafni, S. (2021). *Priypwibowo*. *1*(1), 118–126. Sahir, Syafrida Hafni. %22Metodologi penelitian.%22 (2021).

Jamaludin, A., Widiarto, T., Mashita, J., & Aldi, M. (2023). Pengaruh Kecepatan Pengiriman dan Kualitas Pelayanan terhadap Kepuasan Konsumen PT Sicepat Ekspres Jatisampurna Bekasi. *Sosio E-Kons*, *15*(3), 275. https://doi.org/10.30998/sosioekons.v15i3.20801

Jaya Sakti, B., & Manajemen, J. (2018). PELANGGAN (Studi pada J&T Express Kota Semarang). *Diponegoro Journal of Management*, *7*(4), 1–8. http://ejournal-s1.undip.ac.id/index.php/dbr

Karyawan, K., Indonesia, P. T., Fajri, C., & Amelya, A. (2022). *Pengaruh Kepuasan Kerja dan Disiplin Kerja terhadap*. *5*, 369–373.

Kharisma, D., Simatupang, S., & Hutagalung, H. (2023). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Konsumen Pada UD. Restu Mulia Pandan. *Jurnal Manajemen Dan Akuntansi Medan*, *5*(1), 32–42. https://doi.org/10.47709/jumansi.v5i1.2210

Pelabuhan, D., Pantai, P., Lampung, B., Alhuda, S., Anna, Z., & Rustikawati, I. (2016). *Analisis Produktivitas Dan Kinerja Usaha Nelayan Purse Seine Analysis of Productivity and Business Performance Purse Seine Fishermen*. *VII*(1).

Pembelian, K., & Tebu, G. (2016). *Program Studi Manajemen Fakultas Ekonomi Universitas Tamansiswa Padang*. *7*(September).

Wibowo, A., & Singagerda, F. I. S. (2023). *MENGGUNAKAN QR CODE BERBASIS SISTEM*. 29–37.