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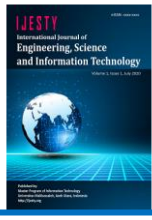

Analysis of The Relationship of Land Transportation With GRDP in Wholesale and Retail Trade Sector, Car and Motorcycle Reparation

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Abstract

Transportation Land transportation influences national economic growth. Due to the existence of land transportation modes, the national economy can continue to grow from year to year. This study analyzed the variable relationship between land transportation through road length data, road condition data, and GRDP in the wholesale and retail trade sectors. The results of this study show that good national road conditions have a very low positive correlation (0.079). And has an insignificant relationship to GRDP (0.665 > 0.05). National road conditions have a shallow level of positive correlation (0.074). And has a negligible relationship to GRDP (0.679 > 0.05). Damaged national road conditions have a superficial negative correlation (-0.040). And has an insignificant relationship to GRDP (0.823 > 0.05). National road conditions severely damaged did not pass the requirements test, normality test results (0.024 <0.05). Provincial road conditions are good, with a positive correlation (0.681). And has a significant relationship to GRDP (0.00 <0.05). Medium local roads have a good level of positive correlation (0.586). And has a substantial relationship to GRDP (0.00 <0.05). The condition of damaged provincial roads has a low negative correlation (-0.103). It has an insignificant relationship to GRDP (0.563 > 0.05). The condition of the badly damaged national road does not pass the requirements test, the normality test (0.024 <0.05). Moderate district/city road conditions have an average positive correlation (0.356). And has a significant relationship to GRDP (0.039 <0.05). The condition of district/city roads is damaged and has a shallow correlation level of (0.105). It has an insignificant relationship with GRDP (0.555 > 0.05). The condition of district/city roads is badly damaged and has a shallow correlation level of (0.105). It has an insignificant relationship with GRDP (0.555 > 0.05). The condition of district/city roads is damaged and has a shallow correlation level of (0.105). It has an insignificant relationship with GRDP (0.555 > 0.05). The condition of district/city roads is badly damaged and has a shallow correlation level of (0.105). It has an insignificant relationship with GRDP (0.555 > 0.05). The condition of district/city roads is damaged and has a shallow correlation level of (0.105). It has an insignificant relationship with GRDP (0.555 > 0.05). The condition of district/city roads is badly damaged and has a shallow correlation level of (0.105). It has an insignificant relationship with GRDP (0.555 > 0.05).

Keywords: *Land Transportation Statistics, Road Conditions, GRDP, Car, Motorcycle Repair.*

1. Introduction

Transportation is the movement of people, goods, or other objects using vehicles or facilities as aids driven by humans or machines to assist humans in their activities. Experts explain the meaning of transportation, and each has their own opinion regarding the similarities and differences in the sense of transportation. Roads are the most critical construction for users of land transportation; in other words, roads are an essential means of connecting land transportation or vehicles to improve the economy at the national, provincial, district, or city levels in Indonesia. In other words, the road is a place where the movement of goods that are being traded or services that are taking place on land occurs. The length of the road according to its condition can be divided into 4 (four) condition statuses: roads with good road condition status, moderate road conditions, damaged road conditions, and heavily damaged roads. GRDP in the sector, the Wholesale and Retail Trade, Car and Motorcycle Repair section includes economic sectors related to wholesale and retail trade. This activity involves the sale of goods without technical changes of various types of goods and providing compensation for services related to the sale of these goods. In addition, this category also includes car and motorcycle repair. The main form of this activity is wholesalers who obtain rights to the goods they sell, such as wholesalers, contractors, distributors, exporters, importers, cooperative associations, sales offices, and sales branch offices managed by units of industrial and mining companies.

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2. Literature Review

Table 1. Previous Research

No	Journal / Researcher	Title	Research methods	Similarities and differences
1.	Jurnal Fakultas Teknik / (Bunyanun Marsus, Ni Kadek Indriani, Visal Darmawan [1]	Effect of Length of Road Infrastructure on GRDP and Palopo City Economic Growth.	Quantitative descriptive	Equality : They analyze the relationship between road infrastructure and GRDP for economic sustainability. Difference : Besides using a quantitative descriptive method, the researchers used a significant correlation quantitative method.
2.	Civil Engineering / Alfridus Gado1, Ismiyati, Mudjiastuti Handajani [2]	The Influence of Public Passenger Car Accessibility Levels on Development Community Economy in Sikka Regency, NTT Province.	Combined research methods Qualitative and quantitative	Equality : The same topic, namely, ground transportation. Difference : Qualitative combined method with quantitative. In contrast to the researchers who use quantitative analysis, the correlation is significant.
3.	Sustainability MDPI/ Jingxin Sun, Zhinong Li, Jiaqiang Lei [3]	Study on the Relationship between Land Transport and Economic Growth in Xinjiang	Nonlinear ordinary least-squares estimation and Gauss-Newton iterative methods	Equality : Land transportation is a boost to the economy. Difference : The scope of discussion (country) is different.
4.	Quality and Operations Management/ Ejiogu, (2020)	The Effect of Transportation Infrastructure on Economic Development	Correlation method.	Equality : They both discussed road infrastructure as an economic improvement. Difference : Different scopes of discussion (country).
5.	Jurnal Manejemen Aset/ Krisna, I Dewa Gede Karma Wisana [5]	The Role of Railway Infrastructure for Regional Economic Growth	Fixed Effects and Feasible Generalized Least Square (FGLS) Methods	Equality : The impact of one of the land transportation on economic growth. Difference : Different method, FGLS.
6.	E-Journal Fac. Ilmu Sosial dan Ilmu Politik/ [6]	Development Planning Strategy in Surabaya in Economic Growth Through Leading Sectors.	This qualitative research is a literature study that uses books and other literature as a source of data and information.	Equality : The same examines the relationship between GRDP and economic sustainability Difference : The scope of GRDP studied is only in one area (Surabaya). Meanwhile, the researchers conducted a more thorough data analysis on the 34 provinces in Indonesia.
7.	Jurnal Manejemen / Bimo W, Nunuk Triwahyuningtya, Renea Shinta A. [7]	Analysis of the Effect of Total Land Transportation Infrastructure and Total Population on Indonesia's Gross Domestic Product (GDP)	In this research, the method used is multiple linear regression analysis using an Ordinary Least Squares (OLS) approach.	Equality : Have similarities in road infrastructure and the scope studied (Indonesia). Difference : The research method uses multiple linear regression with the OLS approach. In contrast to the researchers who use quantitative analysis, the correlation is significant.
8.	Jurnal Ekonomi / [8]	The Influence of Infrastructure on Economic Growth in Simalungun Regency	This study uses the method of descriptive analysis	Equality : There are similarities in the discussion (both use GDP) as a reference. Difference : Descriptive analysis method. In contrast to the researchers who use quantitative analysis, the correlation is significant.
9.	Faculty of Geography / Andri Kurniawan,[9]	Differences in Sectoral Contribution Shifts to GRDP According to Regencies/Cities during the COVID-19 Pandemic in Central Java Province.	Using quantitative methods with a comparative approach between sectors and between regions.	Equality : The data equation on the economic downturn (covid 2020). Equality : The scope of the discussion is more detailed. Meanwhile, the researchers conducted a more thorough data analysis on the 34 provinces in Indonesia.
10.	Jurnal Perbendaharaan / Indrayan-	Analysis of GRDP of Main Economic Sector of DKI	The data analysis method uses Shift Share and Loca-	Equality : Both analyze GRDP to improve the economy.

	syah Nur, Muhammad Taufiqur Rakhman [10]	Jakarta Province.	tion Quotient. In Shift-Share analysis for 2011-2018 and Location Quotient (LQ) for 2014-2018.	Difference : The scope of the discussion is more detailed. Meanwhile, the researchers conducted a more thorough data analysis on the 34 provinces in Indonesia.
11.	Jurnal Ilmu Sosial / Patrianus Khristian Sumule [11]	The Impact of Land Transportation Management Policies on the Economy of the Biak Community. Numfor patricians	Using the descriptive method, with proper interpretation.	Equality : The same topic, namely, using ground transportation. Difference : Descriptive method with interpretation. In contrast to the researchers who use quantitative analysis, the correlation is significant.
12.	Jurnal Ekonomi dan Manejemen / Jujun Junaidi, Irwan Gani, Akhmad Noor [12]	Analysis of Land Transportation on Economic Growth in the Province East Kalimantan.	Research with quantitative methods based on secondary data.	Equality : Have similarities to the impact of land transportation. Difference : Do not use GRDP data as a comparison and scope in an area. Meanwhile, the researchers conducted a more thorough data analysis on the 34 provinces in Indonesia.
13.	Jurnal Ekonomi Pembangunan/ Reza Gunawan, Teuku Zulham [13]	Traffic Congestion Relationship With Income And Expenditure of Traders in the City of Banda Aceh	Correlation method of the relationship between traffic jams and the income and expenses of traders in Banda Aceh.	Equality : Both have the scope of discussion, land transportation relations. Difference : The scope of the discussion focused on an area. Meanwhile, the researchers conducted a more thorough data analysis on the 34 provinces in Indonesia.
14.	International Journal of Economics and Management/ Ade Parlaungan Nasution, [14]	Land Transportation Effects on Manufacturing and Regional Economy of Sumatra Indonesia	Multiple Linear Regression Analysis and Simultaneous Test	Equality : Have similarities to the impact of land transportation. Difference : Different methods, multiple linear regression, and simultaneous tests. In contrast to the researchers who use quantitative analysis, the correlation is significant.
15.	Journal of Physics/ Yongbin Wang [15]	The correlation between GDP and different transport modes turnover based on gray correlation analysis	The decoupling method is used in the relationship between economic growth, traffic volume, and environmental conditions.	Equality : Land transportation is a boost to the economy. Difference : The decoupling method is a result of the discussion. In contrast to the researchers who use quantitative analysis, the correlation is significant.
16.	Civil Engineering/ Ing Daud Nawir, Rahmat Faizal, Achmad Zultan Mansyur, Riinawati and Usman Jayadi[16]	Land Transportation Management Policy In Tarakan Public Economy	This research uses a descriptive method.	Equality : Land transportation is a boost to the economy. Difference : This researcher focuses on the scope of land transportation (vehicles). At the same time, researchers focus on land transportation through road condition data.
17.	International Journal of New Technology and Research (IJNTR)/ Adeniyi Joshua Olu, Akinrinmade Yomi, [17]	Analysis Of Road Transport Impact On Rural Development In Nigeria: A Study On Akure North Local Government Area, Ondo State	A systematic sampling method was used in administering the questionnaire, which was analyzed and discussed.	Equality : Road transportation (land) improves the economy. Difference : The scope of the discussion in a place (village). Meanwhile, the researchers conducted a more thorough data analysis on the 34 provinces in Indonesia.
18.	International Journal of Chemical, Environmental & Biological Sciences (IJCEBS)/Ashkan Tatari, [18]	Investigation of Transportation Infrastructure in Developing Countries	Spatial Autocorrelation and Spatial Lag.	Equality : Land transportation is an increase in the economy. Difference : Different methods, Autocorrelation with Spatial and Spatial Lag. In contrast to the researchers who use quantitative analysis, the correlation is significant.
19.	Jurnal Ekonomi / Dhimas Ilham Prasetya, Ida Nuraini,	The Effect of Road and Electricity Infrastructure Development on GRDP in	The use of linear regression analysis method.	Equality : Have the same focus on road construction. Difference :

	Hendra [19]	Mojokerto City		Linear regression analysis method. In contrast to the researchers who use quantitative analysis, the correlation is significant.
20.	Journal of Coventry University's Repository / Jin Suk Park Young-Joon Seo and Min-Ho Ha[20]	The role of maritime, land, & air transportation in economic growth: Panel evidence from OECD and non-OECD countries	Follows previous economic growth literature and generally uses only physical capital and labor as factors of production.	Equality : Economic improvement in land transportation. Difference : The method used by this researcher is a qualitative analysis of literature data. In contrast to the researchers who use quantitative analysis, the correlation is significant.

3. Methods

3.1. Research Methods

Data from this study, the authors took related data from Analysis of the Relationship of Land Transportation with GRDP in the Wholesale and Retail Trade sector, Repair of Cars and Motorcycles in 2020, which refers to the condition of State roads, Provincial roads, and Regency/City roads. The author has collected some GRDP (national) data from several regional areas covering almost all provincial data and city-district data from 2016 to 2020, which were obtained from the Central Statistics Agency (BPS). The author also received alternative data from road surface conditions and road length data in 2020. The author conducted this research using several data sources, in the form of primary data and secondary data, as follows:

Secondary Data :

Is data collected from various sources, such as data from previous research and data that the authors obtained from the Central Bureau of Statistics (BPS), in the form of:

- BPS GRDP of Wholesale and Retail Trade; Car and Motorcycle Repair 2016 – 2020.
- BPS Land Transportation Statistics, Length of State, Provincial, Regency/City Roads According to Road Conditions in 2020

3.2. Methods Used

1. Normality Test
   The technique used for normality testing uses the Kolmogorov-Smirnov test through the SPSS for Win 25.0v program. The benchmark used is if $p > 0.05$, then the distribution is normal; if otherwise $p \geq 0.05$, then the distribution is not normal.
2. Linearity Test
   The rule used is if $p > 0.05$, then the relationship between the two is linear and if vice versa, if $p \leq 0.05$, then the relationship between the two is non-linear.
3. Correlation Test and Data Significance
   The method used for the homogeneity test is the data in this study in the form of the Levene test, namely the homogeneity of variance test. To determine homogeneity, criteria are used; if Sig. >∞, then the variance of each sample is the same (homogeneous). If Sig. <∞, then the variance of each sample is not the same (not homogeneous). Significant test, if (∞) = 0.05.
   The formula for Moment Product Correlation, namely:

$$r_{XY} = \frac{n\sum XiYi - (\sum Xi)(\sum Yi)}{\sqrt{[n\sum Xi^2 - (\sum Xi^2)][n\sum Xi^2 - (\sum Yi^2)]}}$$

Correlation has an interpretation of the size of the correlation coefficient obtained, which can be carried out using guidelines on specific provisions, which can be seen in the following table:

Table 2. Correlation Test

Interval Kolerasi	Tingkat hubungan
0.00 – 0.199	Sangat Rendah
0.20 – 0.399	Rendah
0.40 – 0.599	Sedang
0.60 – 0.799	Kuat
0.80 – 1.00	Sangat Kuat

Source : Sugiono 2013 ; 250

3.3. Hypothesis Testing

Hypothesis 1 = Ho: "There is no positive relationship between State road conditions (X) on GRDP in the Wholesale and Retail Trade sector; Car and Motorcycle Repair (Y)."
Ha: "There is a positive relationship between the condition of State roads (X) on the GRDP of the wholesale and retail trade sector; Car and Motorcycle Repair (Y)."

Hypothesis 2 = Ho: "There is no positive relationship between the condition of provincial roads (X) and the GRDP of the wholesale and retail trade sector; Car and Motorcycle Repair (Y)."
Ha: "There is a positive relationship between the condition of provincial roads (X) and the GRDP of the wholesale and retail trade sector, Car and Motorcycle Repair (Y)."
Hypothesis 3 = Ho: "There is no positive relationship between the condition of Regency/City roads (X) on the GRDP of the Wholesale and Retail trade sector; Car and Motorcycle Repair (Y)."
Ha: "There is a positive relationship between the condition of Regency/City roads (X) on the GRDP of the Wholesale and Retail trade sector; Car and Motorcycle Repair (Y)."

To determine the results of the Ho and Ha Hypothesis tests, hypothesis testing uses SPSS tools with the following conditions:
- Sig. Value or the probability is less than 0.05 (Sig. <0.05), meaning there is a correlation/relationship.
- Sig. Value or the probability is more significant than 0.05 (Sig. > 0.05), meaning there is no correlation/relationship.

4. Results And Discussion

4.1. Normality Test

The normality test aims to determine whether the variables are normally distributed or not normally distributed. To test the hypothesis, the variables used are only variables that are typically distributed, to find out the distribution of variables can be seen with the SPSS tool with the Kolmogorov-Smirnov method with the provisions:
a. If significance > 0.05, then the data is not normally distributed.
b. If significance ≤ 0.05, then the distribution is normal

4.1.1. GRDP Normality Test of Wholesale and Retail Trade

Tabel 3. One-Sample Kolmogorov-Smirnov Test

	GRDP Trade
N	34
Kolmogorov-Smirnov Z	1862
Symp. Sig. (2-tailed)	002

Source: Normality Test on SPSS Applications

Testing of GRDP variable data in sectors, wholesale and retail trade, car and motorcycle repair, normally distributed. Because it has Asymp data. Sig (0.441) > 0.05

4.1.2. National Road Condition Normality Test

Tabel 4. One-Sample Kolmogorov-Smirnov Test

	Good National Road	Medium National Road	Broken National Road	Severely Damaged National Road
N	34	34	34	34
Kolmogorov-Smirnov Z	.612	.533	1,061	1,489
Symp. Sig. (2-tailed)	.848	.939	.211	024

Source: Normality Test on SPSS Applications

It is known that the test results of the national road condition variables are good, medium, and damaged, normally distributed because they have Asymp. Sig (0.848; 0.939; 0.211) > 0.05. The condition variable for heavily damaged national roads is not normally distributed due to Asymp. Sig (0.024) < 0.05. Variable data that does not meet the normality test cannot be used in linearity tests or hypothesis testing.

4.1.3. Provincial Road Condition Normality Test

Tabel 5. One-Sample Kolmogorov-Smirnov Test

	Good Provincial Road	Medium Provincial Road	Damaged Provincial Road	Severely Damaged Provincial Road
N	34	34	34	34
Kolmogorov-Smirnov Z	1,194	1,200	1.132	1,512
Symp. Sig. (2-tailed)	.115	.112	.154	.021

Source: Normality Test on SPSS Applications

It is known that the test results of the variable provincial road conditions are good, moderate, and damaged, normally distributed because they have Asymp. Sig (0.115; 0.112; 0.154) > 0.05. The condition variable for heavily damaged provincial roads is not normally distributed due to Asymp. Sig (0.021) < 0.05. Variable data that does not meet the normality test cannot be used in linearity tests or hypothesis testing.

4.1.4. Test for Normality of District/City Road Conditions.

Tabel 6. One-Sample Kolmogorov-Smirnov Test

	Medium District Road	Damaged County Road	Severely Damaged District Road
N	34	34	34
Kolmogorov-Smirnov Z	.786	.747	1.123
Symp. Sig. (2-tailed)	.568	.633	.160

Source: Normality Test on SPSS Applications

It is known that the test results of the variable condition of district/city roads are moderate, damaged, heavily damaged, and generally distributed because they have Asymp. Sig (0.568; 0.633; 0.160) > 0.05.

4.2. Linearity Test

4.2.1. GRDP Linearity Test - National Road Conditions

Table 7. National Road Linearity

			df	F	Sig.
Length of National Road in Good Condition (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	.132	.940
		Linearity	1	.226	.638
		Deviation from Linearity	2	085	.919
		Within Groups	30		
Condition of Medium National Road Length (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	3,267	.035
		Linearity	1	5.308	.028
		Deviation from Linearity	2	2,246	.123
		Within Groups	30		
Condition Length of Damaged National Road (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	.156	.925
		Linearity	1	006	.938
		Deviation from Linearity	2	.231	.795
		Within Groups	30		

Source: Linearity Test on SPSS applications

It is known that the national road conditions are Good, Moderate, and Damaged, which have a linear relationship with the GRDP variable. The data obtained is based on the results of Deviation From Linearity in the form of (0.919; 0.123; 0.795) > 0.05. These results are also by the calculated values of F with F tables, which are linearly related (0.085; 2.246; 0.231 < 3.316).

4.2.2. GRDP Linearity Test – Provincial Road Conditions

Table 8. Linearity of Provincial Roads

			df	F	Sig.
Length of National Road in Good Condition (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	3,242	.036
		Linearity	1	7,087	012
		Deviation from Linearity	2	1,320	.282
		Within Groups	30		
Condition of Medium National Road Length (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	2,455	082
		Linearity	1	4,203	.049
		Deviation from Linearity	2	1,581	.222
		Within Groups	30		
Condition Length of Damaged National Road (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	.599	.621
		Linearity	1	1,461	.236
		Deviation from Linearity	2	.168	.846

		Within Groups	30		

Source: Linearity Test on SPSS applications

It is known that the provincial road conditions are Good, Moderate, and Damaged and have a linear relationship with the GRDP variable. The data obtained is based on the results of Deviation From Linearity in the form of (0.282; 0.222; 0.846) > 0.05. These results are also by the calculated values of F with F tables, which are linearly related (1.320; 1.581; 0.168 < 3.316).

4.2.3. GRDP Linearity Test – District/City Road Conditions

Table 9. Linearity of District/City Roads

			df	F	Sig.
Moderate Length of District/City Roads (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	4,547	010
		Linearity	1	12,703	001
		Deviation from Linearity	2	.469	.630
		Within Groups	30		
Condition Length of Damaged District/City Roads (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	3,551	.026
		Linearity	1	9,742	.004
		Deviation from Linearity	2	.455	.639
		Within Groups	30		
Condition Length of District/City Roads Very Damaged (Km) * GRDP of Wholesale and Retail Trade	Between Groups	(Combined)	3	.799	.504
		Linearity	1	2,195	.149
		Deviation from Linearity	2	.101	.904
		Within Groups	30		

Source: Linearity Test on SPSS applications

It is known that the condition of moderately damaged and heavily damaged district/city roads has a linear relationship with the GRDP variable. The data obtained is based on the results of Deviation From Linearity in the form of (0.630; 0.639; 0.904) > 0.05. These results are also by the calculated value of F with the F table, which is related linearly (0.469; 0.455; 0.101 <3.316).

4.3. Correlation Test

The product-moment correlation test was carried out to determine the correlation coefficient between land transportation based on data on national, provincial, district/city road conditions and GRDP in the sector, wholesale and retail trade, and car and motorcycle repair. The following are the guidelines and provisions used in this correlation test, as well as the results of the correlation test obtained:

Table 10. Correlation Test

Correlation Interval	Relationship level
0.00 – 0.199	Very low
0.20 – 0.399	Low
0.40 – 0.599	Currently
0.60 – 0.799	Strong
0.80 – 1.00	Very strong

4.3.1. GRDP Correlation Analysis - National Road Conditions

Table 11. National Road Correlations

		GRDP Trade	Good condition	Moderate Condition	Bad condition
GRDP Trade	Pearson Correlation		079	.074	-.040
	N	34	34	34	34
	Sig. (2-tailed)		.655	.679	.823

Source: Correlation Test on the SPSS application

In excellent and medium variables, get a correlation coefficient of (0.079 & 0.074), which shows a positive correlation (+) with a shallow level of relationship. Meanwhile, the damaged data variable (-0.040) gets a negative coefficient (-) and a superficial level of relationship. And with this, there is no significant relationship to the road condition variables Good, Medium, and Damaged because the variable values (0.655; 0.679; 0.823) > 0.05.

4.3.2. GRDP Correlation Analysis – Provincial Road Conditions

Table 12. Provincial Road Correlations

		GRDP	Good condition	Moderate Condition	Bad condition
GRDP Trade	Pearson Correlation		.681**	.586**	-.103
	N	34	34	34	34

	Sig. (2-tailed)	.000	.000	.562

Source: Correlation Analysis Test on the SPSS application

On excellent and moderate variables, get a correlation coefficient of (0.681 & 0.568), which shows a positive correlation (+) with a solid and intermediate level of relationship. Meanwhile, the corrupted data variable (-0.103) gets a negative coefficient (-) and a shallow level of relationship. With this, there is no significant relationship to the wrong road condition variable because (0.562) > 0.05. The results obtained a substantial relationship between the Good and Moderate Road Conditions variables because (0.00; 0.00) < 0.05.

4.3.3. GRDP Correlation Analysis - District/City Road Conditions

Table 13. District/City Road Correlations

		GRDP Trade	Moderate Condition	Bad condition	Severely Damaged Condition
GRDP Trade	Pearson Correlation		.356*	.105	024
	N	34	34	34	34
	Sig. (2-tailed)		039	.555	.893

Source: Correlation Analysis Test on the SPSS application

From the table above, it can be concluded that there is a relationship between the moderately damaged and heavily damaged district/city road condition variables and the GRDP variable. Moderate, damaged, and heavily damaged variables get a correlation coefficient of (0.356; 0.105; 0.024), which shows a positive correlation (+) with a low and shallow relationship level. There is no significant relationship to the variable Damaged and Heavily Damaged Road Conditions because (0.555; 0.893) > 0.05. Meanwhile, the results show a meaningful relationship for the Medium Road Conditions variable because (0.039) <0.05.

4.4. Hypothesis Testing

1. Condition of National Roads with GRDP of Wholesale and Retail Trade, Repair of Cars and Motorcycles
   Significant correlation test results show that the condition of national roads (good, moderate, and damaged) is not related to the GRDP of wholesale and retail trade (0.655; 0.679; 0.823) > 0.05. Can be read, reject Ha, and accept Ho

2. Condition of Provincial Roads with GRDP of Wholesale and Retail Trade, Repair of Cars and Motorcycles
   The results of the significant correlation test show that the condition of provincial roads (damaged) is not related to the GRDP of wholesale and retail trade (0.562) > 0.05. It can be read as rejecting Ha and Accepting Ho. Meanwhile, the Provincial Road Conditions (Good and Medium) have a significant relationship with the GRDP of Wholesale and Retail Trade (0.000; 0.000) < 0.05. Can be read, Rejecting Ho and Accepting Ha.

3. District/City Road Conditions with GRDP of Wholesale Trade and Retail of Car and Motorcycle Repairs
   The results of the significant correlation test show that District/City Road Conditions (Damaged and Heavily Damaged) are not related to the GRDP of wholesale and retail trade (0.555; 0.893) > 0.05. It can be read as rejecting Ha and Accepting Ho. Meanwhile, the condition of District/City Roads (Medium) has a significant relationship with the GRDP of Wholesale and Retail Trade (0.039) <0.05. Can be read, Rejecting Ho and Accepting Ha.

4.5. Discussion

4.5.1. Relationship of National Road Conditions to GRDP

1. Relationship between National Road Conditions and GRDP
   The results of the correlation analysis between the variables of Good National Road Conditions and GRDP for wholesale and retail trade show a positive correlation (0.079) with a shallow level of relationship. From the results of this correlation, it can be stated that the better national road conditions are, the more it will positively contribute to the GRDP of wholesale and retail trade, although it has a low correlation contribution.
2. Relationship between Moderate National Road Conditions and GRDP
   The results of the correlation analysis between the variables of moderate national road conditions and the GRDP of wholesale and retail trade show a positive correlation (0.074) with a shallow level of relationship. From the results of this correlation, it can be stated that the better national road conditions are, the more it will positively contribute to the GRDP of wholesale and retail trade, although it has a low correlation contribution. Meanwhile, the significance test for the variable National Road Conditions was good, with GRDP for the Wholesale and Retail Trade sector, the results were (0.679 > 0.05). From the data of the two variables, it shows a relationship that is less influential and not significant.
3. Relationship between Damaged National Road Conditions and GRDP
   The results of the correlation analysis between the Damaged National Road Condition variable and the GRDP of the Wholesale and Retail Trade Sector show a negative correlation (-0.040), with a shallow level of relationship. The relationship of the correlation test on the Damaged National Road variable gets a negative result with a superficial level. So that makes researchers read the data further. It was found that the more damaged national road conditions are, the more likely they could negatively impact the GRDP growth of wholesale and retail trade. Meanwhile, in the significance test of the Good National Road Condition variable with the GRDP of the Wholesale and Retail Trade sector, the results were (0.823 > 0.05). From the data of the two variables, it shows a relationship that is less influential and not significant.

4.5.2. Relationship between Provincial Road Conditions and GRDP

1. Relationship between Provincial Road Conditions and GRDP
   The results of the correlation analysis between the variable Provincial Road Conditions are Good, and the GRDP of the Wholesale and Retail Trade sector show a positive correlation (0.681), with a strong relationship level. From the results of this correlation, it can be stated that the better the provincial road conditions are, the more it will make a positive contribution and increase accessibility to the GRDP of the wholesale and retail trade sector. Meanwhile, in the significance test, the variable Province Road Conditions is Good, with GRDP in the Wholesale and Retail Trade sector, getting the result (0.000 <0.05). The data shows an influential and significant relationship. This makes the excellent road condition variable have a relationship that can increase accessibility and contribute significantly to the wholesale and retail trade GRDP variables. The Good Provincial Road Condition variable has significant results, aiming to increase accessibility and contribute to the economy. It can be illustrated that this relationship can be a priority for road development and maintenance in the form of road repairs (in the event of damage) to support economic growth and development in the GRDP variable in the Wholesale and Retail Trade sector. In the significance test of the Good National Road Condition variable, with the GRDP of the Wholesale and Retail Trade sectors, the result is (0.655 > 0.05), which shows that the two variables have no significant relationship.
2. Relationship between Moderate Provincial Road Conditions and GRDP
   The results of the correlation analysis between the Medium Provincial Road Condition variable and the GRDP of the Wholesale and Retail Trade sector show a result (0.586) with a moderate level of relationship. From the results of this correlation, it can be stated that the better the provincial road conditions are, the more it will make a positive contribution and increase accessibility to the GRDP of the wholesale and retail trade sector. Meanwhile, there is a Medium Province Road Condition variable in the significance test, with the GRDP of the Wholesale and Retail Trade sector getting the result (0.000 <0.05). The road condition variable has a relationship that increases accessibility and contributes significantly to the wholesale and retail trade GRDP variables. The Medium Provincial Road Condition variable has significant results, which aim to increase accessibility and contribute to the economy. It can be illustrated that this relationship can be a priority for road development and maintenance in the form of road repairs (in the event of damage) to support economic growth and development in the GRDP variable in the Wholesale and Retail Trade sector.
3. Relationship between Damaged Provincial Road Conditions and GRDP
   The results of the correlation analysis between the Damaged Province Road Condition variables and the GRDP of the Wholesale and Retail Trade sector show a negative correlation (-0.103), with a shallow level of relationship. The Correlation Test for the Damaged Provincial Road variable shows a negative relationship with a superficial level. So that makes researchers read the data further. It was found that the more damaged provincial roads are, the more likely it is to impact the GRDP growth of wholesale and retail trade negatively. In the significance test of the Damaged Province Road Condition variable, with the GRDP of the Wholesale and Retail Trade sector, the results were (0.562 > 0.05). The two variables showed a less influential and insignificant relationship from the data.

4.5.3. Relationship between Regency/City Road Conditions and GRDP

1. Relationship between Moderate District/City Road Conditions and GRDP
   The results of the correlation analysis between the Moderate District/City Road Conditions variables and GRDP of Wholesale and Retail Trade show a positive correlation (0.356) with a moderate level of relationship. From the results of this correlation, it can be stated that more road conditions in reasonable districts/cities will positively contribute to the GRDP of wholesale and retail trade, even though it has a low correlation contribution.
   Meanwhile, there is a medium district/city road condition variable in the significance test, with GRDP in the wholesale and retail trade sector, getting the result (0.039 <0.05). The data shows an influential and significant relationship. This makes the excellent road condition variable have a relationship that can increase accessibility and contribute significantly to the wholesale and retail trade GRDP variables. The Medium District/City Road Condition variable results are significant, aiming to increase accessibility and contribute to the economy. It can be described that this relationship can be a priority for road development and road repair to support economic growth and development in the GRDP variable in the Wholesale and Retail Trade sectors.
2. Relationship between Damaged District/City Road Conditions and GRDP
   The results of the correlation analysis between the Damaged District/City Road Condition variables and the GRDP of Wholesale and Retail Trade show a positive correlation (0.105) with a shallow level of relationship. The results of this correlation show that the more damaged district/city roads will positively contribute to the GRDP of wholesale and retail trade, even though it has a low correlation contribution. Meanwhile, in the significance test of the Damaged District/City Road Condition variable, with the GRDP of the Wholesale and Retail Trade sector, the results were (0.555 > 0.05). From the data of the two variables, it shows a relationship that is less influential and not significant.
3. Correlation of Severely Damaged District/City Road Conditions with GRDP
   The results of the correlation analysis between the variables of Heavily Damaged District/City Road Conditions and GRDP of wholesale and retail trade show a positive correlation (0.024), with a shallow level of relationship. From the results of this correlation, it can be stated that the greater the number of district/city roads that are heavily damaged, the more it will positively contribute to the GRDP of wholesale and retail trade, although it has a low correlation contribution. Here, in the significance test of the Heavily Damaged Regency/City Road Condition variable, with GRDP in the Wholesale and Retail Trade sector, the results were (0.893 > 0.05). From the data of the two variables, it shows a relationship that is less influential and not significant.

5. Conclusion

1. Good National Road Condition - GRDP
   The test results of the national road condition variable, both the wholesale and retail trade GRDP variables, have a shallow positive correlation level of (0.079). And has an insignificant relationship to GRDP (0.665 > 0.05).
2. Medium National Road Condition – GRDP
   The test results of the moderate national road condition variable with wholesale and retail trade GRDP have a shallow positive correlation of (0.074). It has an insignificant relationship to GRDP (0.679 > 0.05).
3. Damaged National Road Condition – GRDP
   The test results of the damaged national road condition variable with the wholesale and retail trade GRDP variables have a shallow negative correlation of (-0.040). And has an insignificant relationship to GRDP (0.823 > 0.05).

4. The condition of the National Road is Severely Damaged
   The variable condition of the badly damaged national road does not pass the requirements test because it has an abnormal distribution in the normality test results (0.024 <0.05), so this variable cannot be tested for linearity or correlation and hypothesis testing.

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