Results

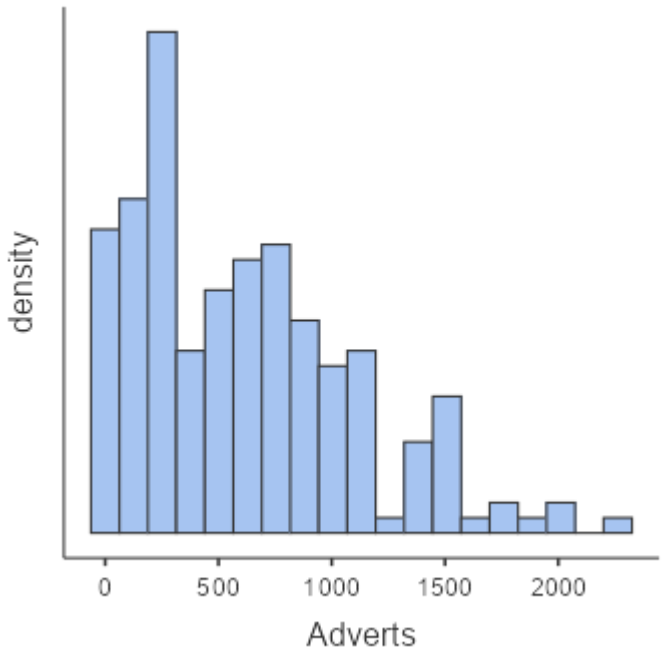
Descriptives

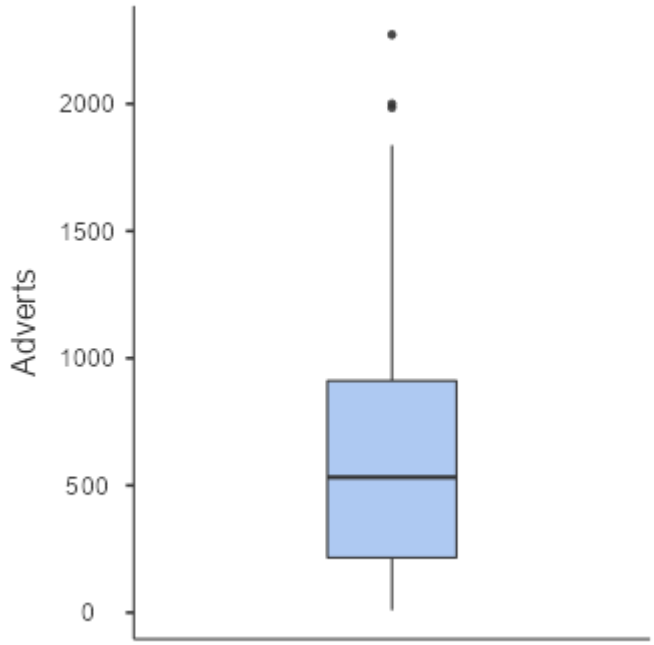
Descriptives

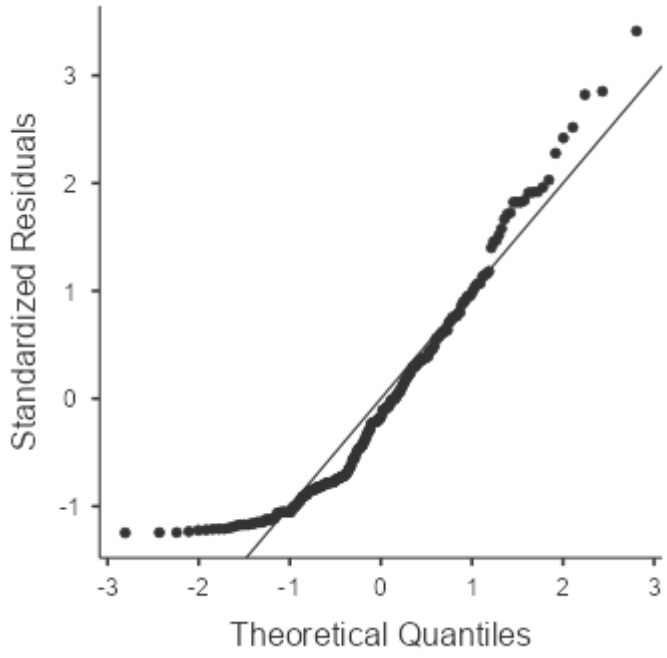
	Adverts	Sales	Airplay	Image
N	200	200	200	200
Missing	0	0	0	0
Mean	614	193	27.5	6.77
Median	532	200	28.0	7.00
Standard deviation	486	80.7	12.3	1.40
Minimum	9.10	10.0	0.00	1.00
Maximum	2272	360	63.0	10.0
Skewness	0.853	0.0439	0.0597	-1.29
Std. error skewness	0.172	0.172	0.172	0.172
Kurtosis	0.236	-0.680	-0.0342	3.74
Std. error kurtosis	0.342	0.342	0.342	0.342
Shapiro-Wilk W	0.925	0.985	0.993	0.877
Shapiro-Wilk p	< .001	0.030	0.408	< .001

Plots

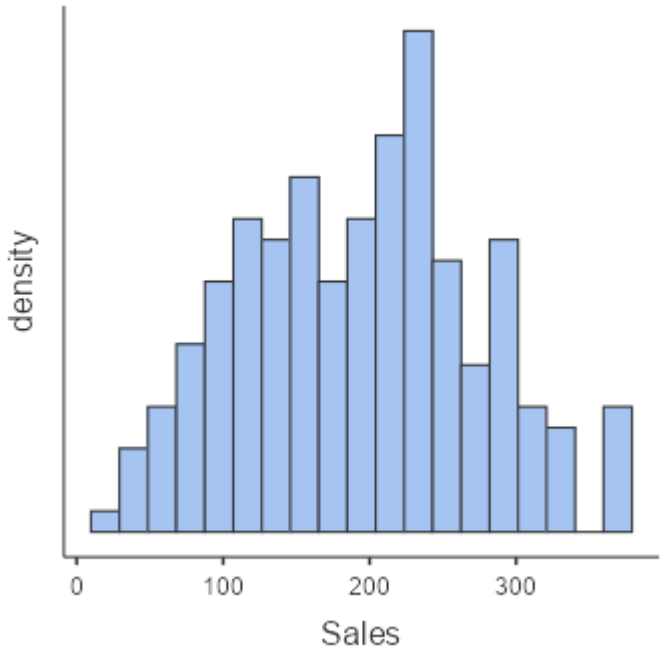
Adverts

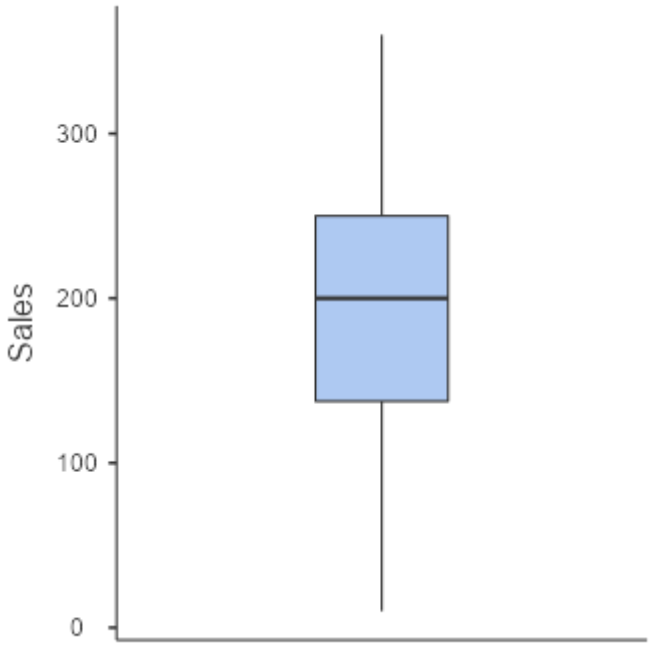


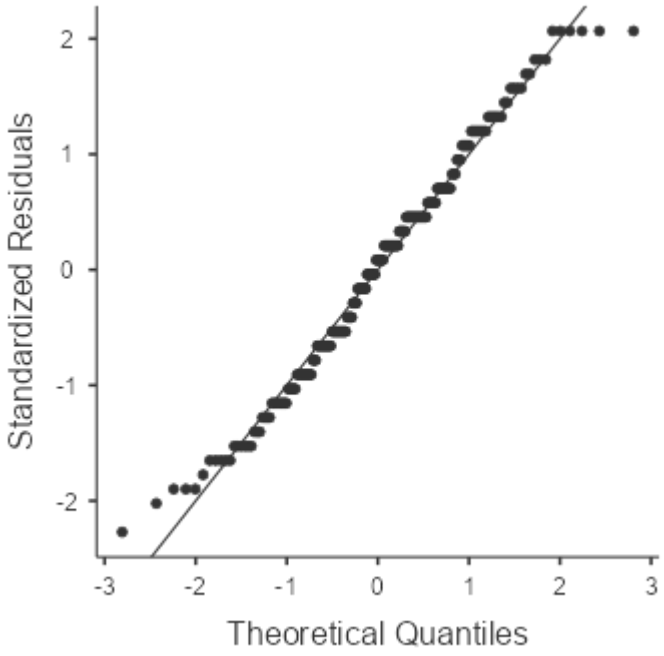

Adverts
2000
1500
1000
500
0


Standardized Residuals
3
2
1
0
-1
-3
-2
-1
0
1
2
3
Theoretical Quantiles

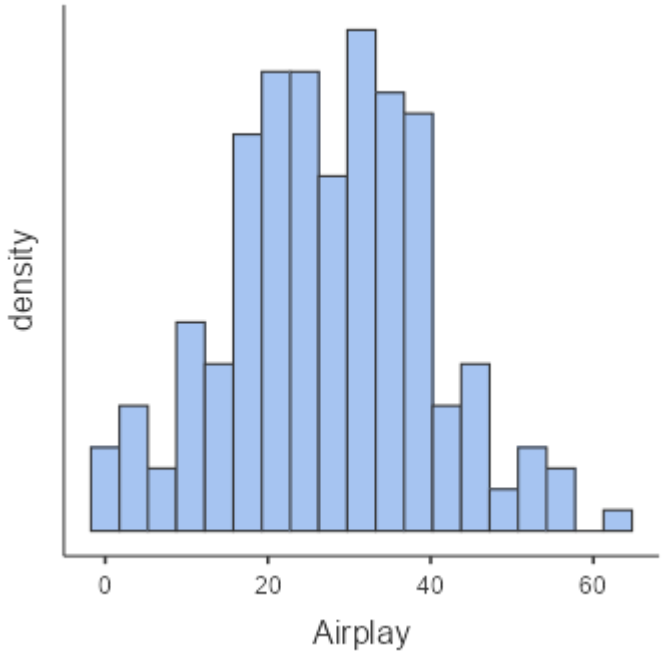
Sales

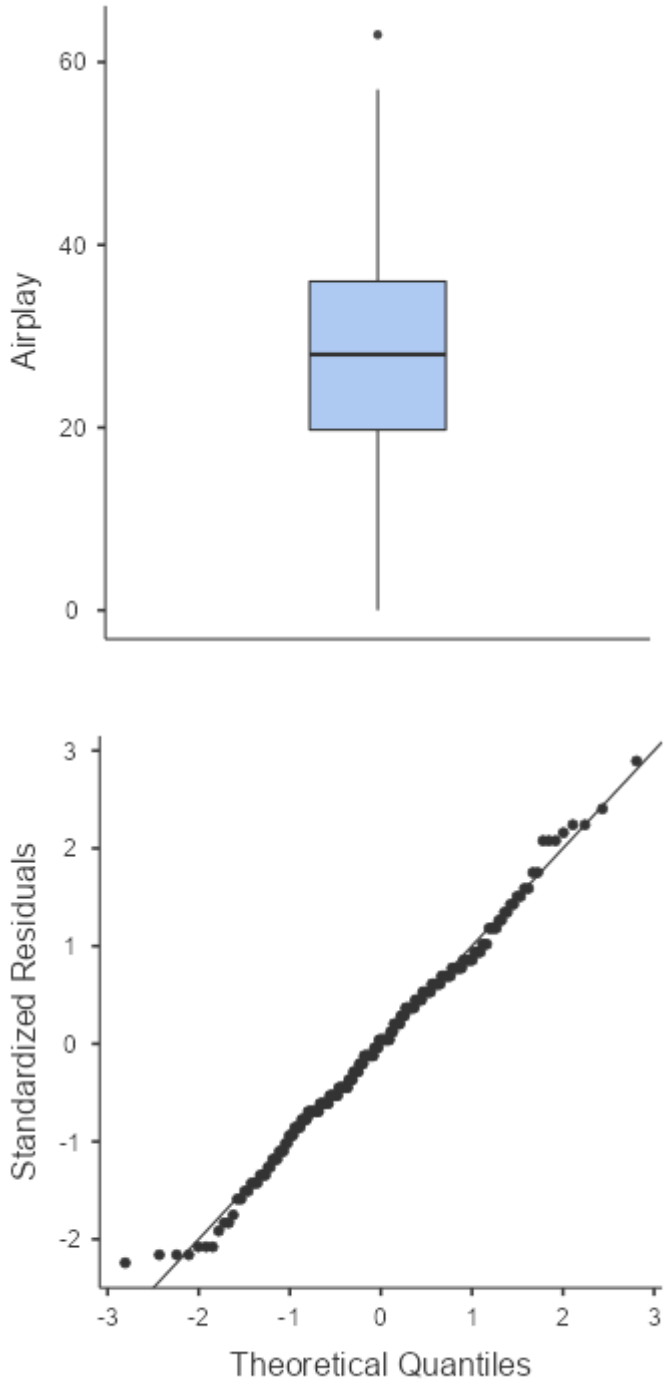

density
0
100
200
300
Sales


Sales
300
200
100
0

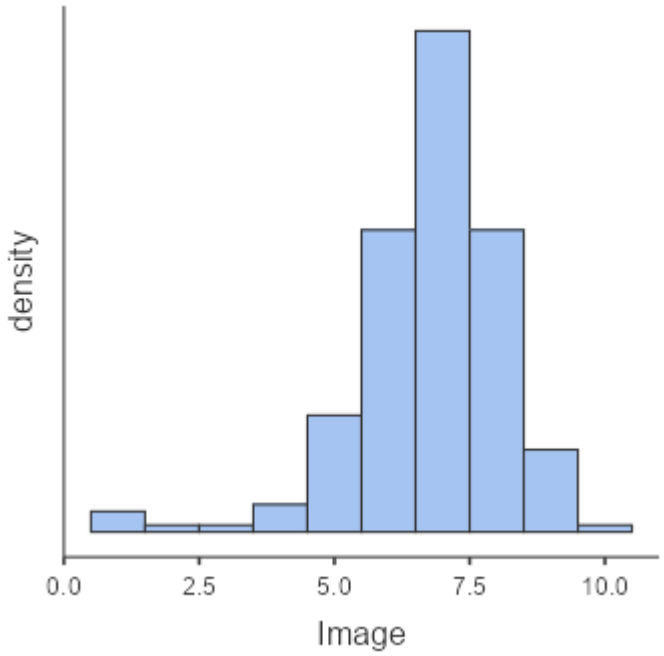

Standardized Residuals
2
1
0
-1
-2
-3
-2
-1
0
1
2
3
Theoretical Quantiles

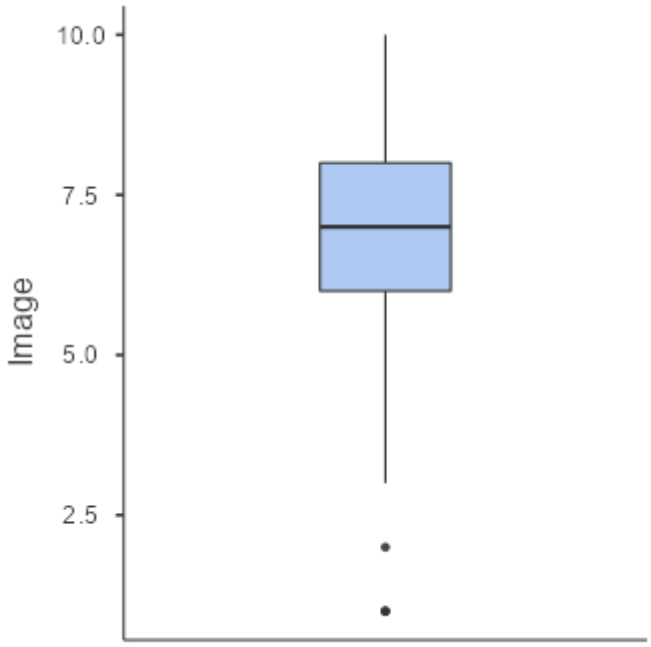
Airplay

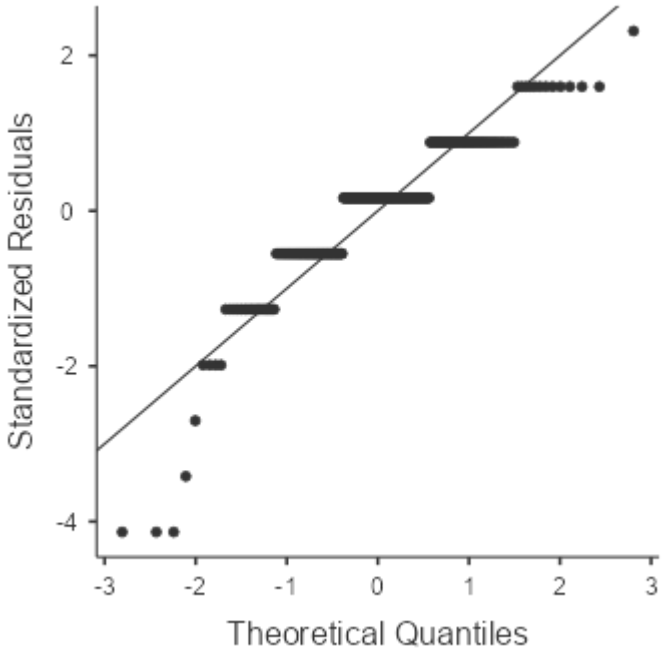

density
0
20
40
60
Airplay


60
40
20
0
Airplay
3
2
1
0
-1
-2
Standardized Residuals
-3
-2
-1
0
1
2
3
Theoretical Quantiles

Image


density
0.0
2.5
5.0
7.5
10.0
Image


10.0
7.5
5.0
2.5
Image



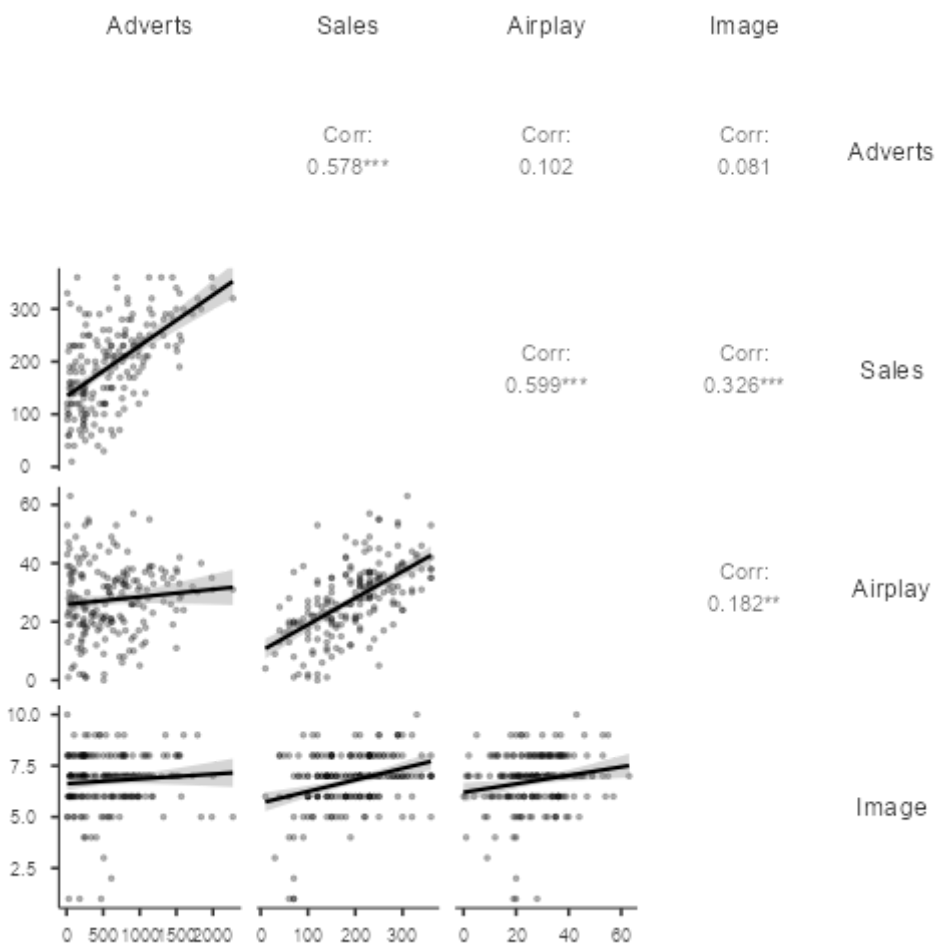
Correlation Matrix

Correlation Matrix

		Adverts	Sales	Airplay	Image
Adverts	Pearson's r	—			
	p-value	—			
Sales	Pearson's r	0.578 ***	—		
	p-value	< .001	—		
Airplay	Pearson's r	0.102	0.599 ***	—	
	p-value	0.151	< .001	—	
Image	Pearson's r	0.081	0.326 ***	0.182 **	—
	p-value	0.256	< .001	0.010	—

Note. * p < .05, ** p < .01, *** p < .001

Plot



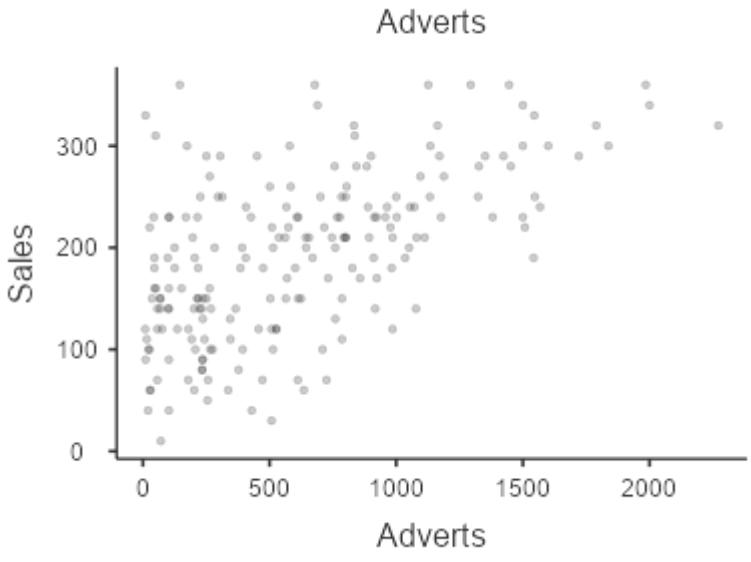
Relationships, Prediction, and Group Comparisons

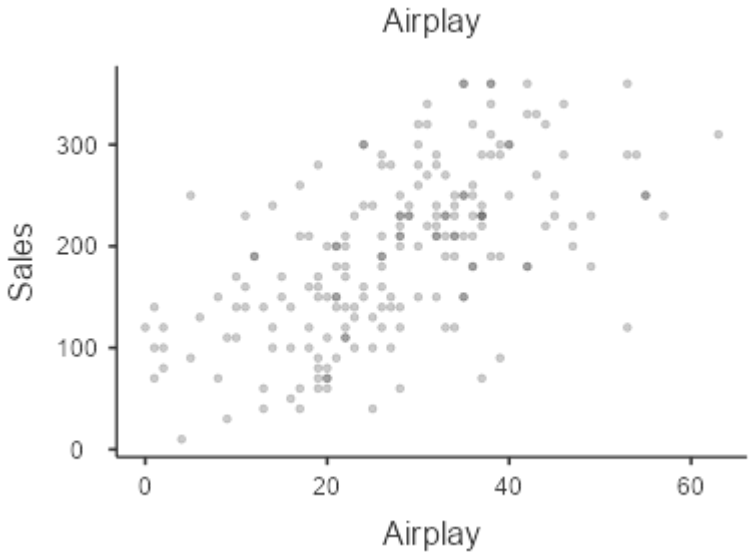
You have entered a numeric dependent variable and several numeric independent variables. Hence, linear regression analysis seems to be a good option for you! In order to run this analysis in jamovi, go to: Regression > Linear Regression

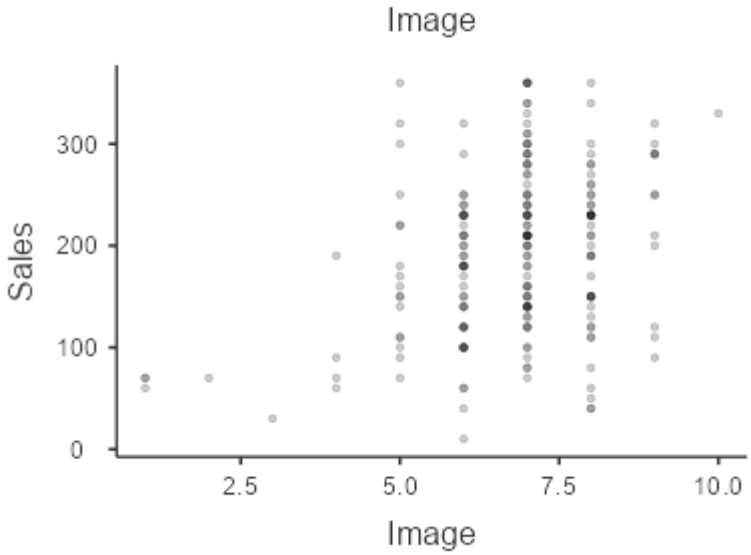
- Drop your dependent variable in the box below Dependent Variable
- Drop your independent variables in the box below Covariates

Click on the link to learn more about this method!

Scatter Plots of Bivariate Relationships - Dependent/Independent Variables







Linear Regression

Model Fit Measures

							Overall Model Test			
Model	**R**	**R^2**	**Adjusted R^2**	**AIC**	**BIC**	**RMSE**	**F**	**df1**	**df2**	**p**
1	0.578	0.335	0.331	2247	2257	65.7	99.6	1	198	< .001
2	0.815	0.665	0.660	2114	2131	46.6	129.5	3	196	< .001

Model Comparisons

Comparison							
Model		**Model**	**ΔR^2**	**F**	**df1**	**df2**	**p**
1	-	2	0.330	96.4	2	196	< .001

Model Specific ResultsModel 1Model 2

Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	p
Adverts	433688	1	433688	99.6	< .001
Residuals	862264	198	4355		

Note. Type 3 sum of squares

[3]

Model Coefficients - Sales

			95% Confidence Interval				
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**t**	**p**	**Stand. Estimate**
Intercept	134.1399	7.53657	119.2777	149.002	17.80	< .001	
Adverts	0.0961	0.00963	0.0771	0.115	9.98	< .001	0.578

Data Summary

Cook's Distance

			Range	
Mean	**Median**	**SD**	**Min**	**Max**
0.00442	0.00158	0.00741	3.15e-8	0.0572

Assumption Checks

Durbin–Watson Test for Autocorrelation

Autocorrelation	DW Statistic	p
-0.0439	2.03	0.778

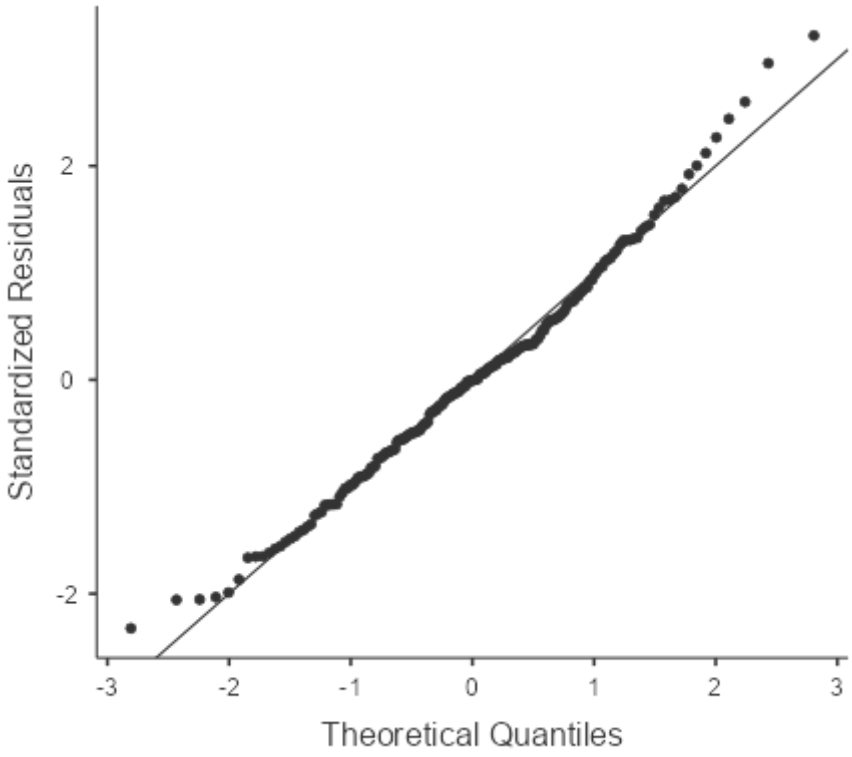
[3]

Collinearity Statistics

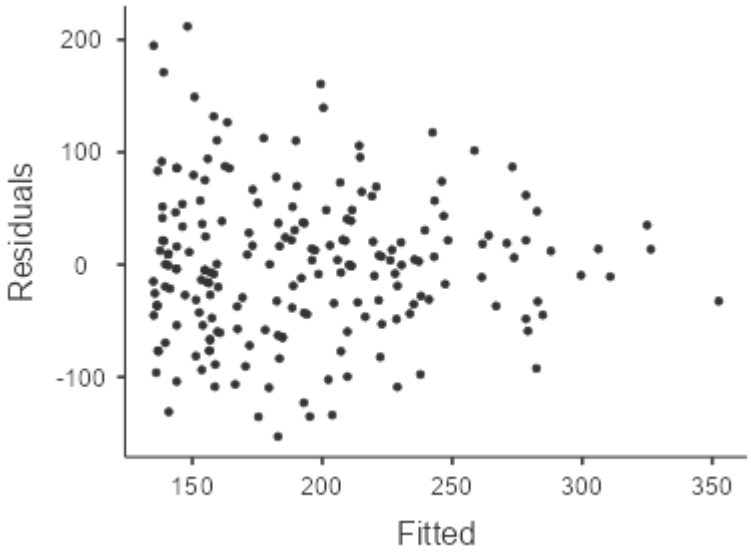
	VIF	Tolerance
Adverts	1.00	1.00

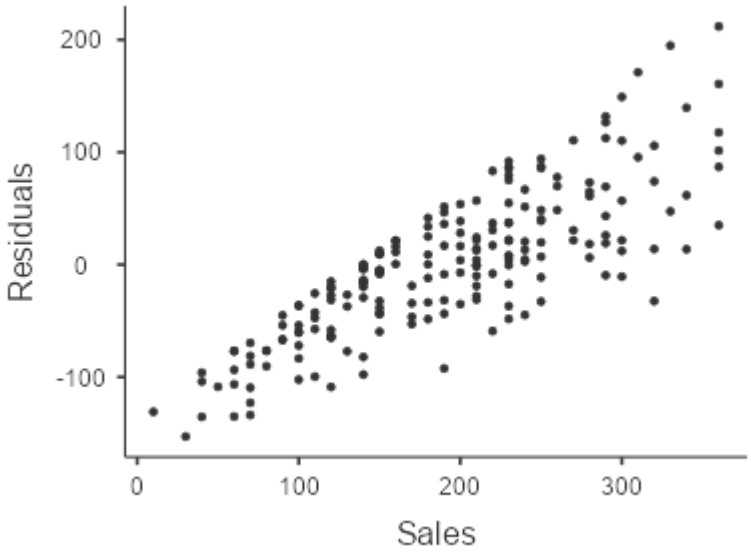
[3]

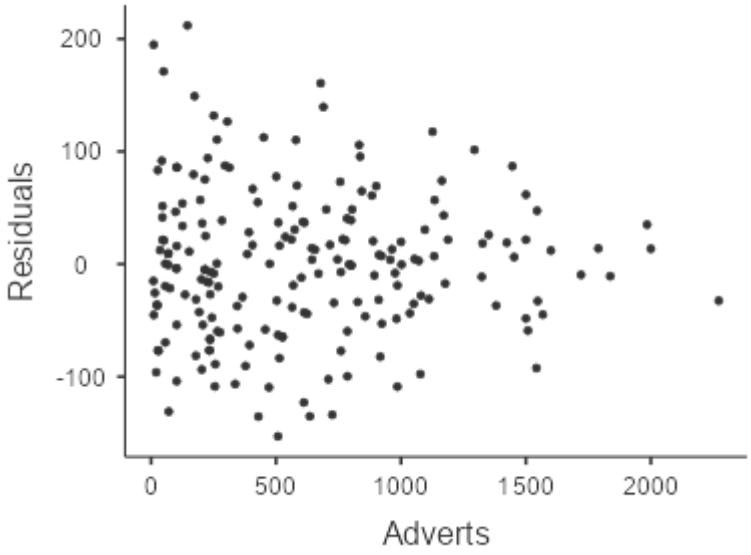
Q-Q Plot



Residuals Plots







Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	p
Adverts	333332	1	333332	150.3	< .001
Airplay	325860	1	325860	147.0	< .001
Image	45853	1	45853	20.7	< .001
Residuals	434575	196	2217		

Note. Type 3 sum of squares

[3]

Model Coefficients - Sales

			95% Confidence Interval				
Predictor	**Estimate**	**SE**	**Lower**	**Upper**	**t**	**p**	**Stand. Estimate**
Intercept	-26.6130	17.35000	-60.8296	7.6037	-1.53	0.127	
Adverts	0.0849	0.00692	0.0712	0.0985	12.26	< .001	0.511
Airplay	3.3674	0.27777	2.8196	3.9152	12.12	< .001	0.512
Image	11.0863	2.43785	6.2786	15.8941	4.55	< .001	0.192

Data Summary

Cook's Distance

			Range	
Mean	**Median**	**SD**	**Min**	**Max**
0.00520	0.00166	0.00962	4.05e-7	0.0708

Assumption Checks

Durbin–Watson Test for Autocorrelation

Autocorrelation	**DW Statistic**	**p**
0.00270	1.95	0.778

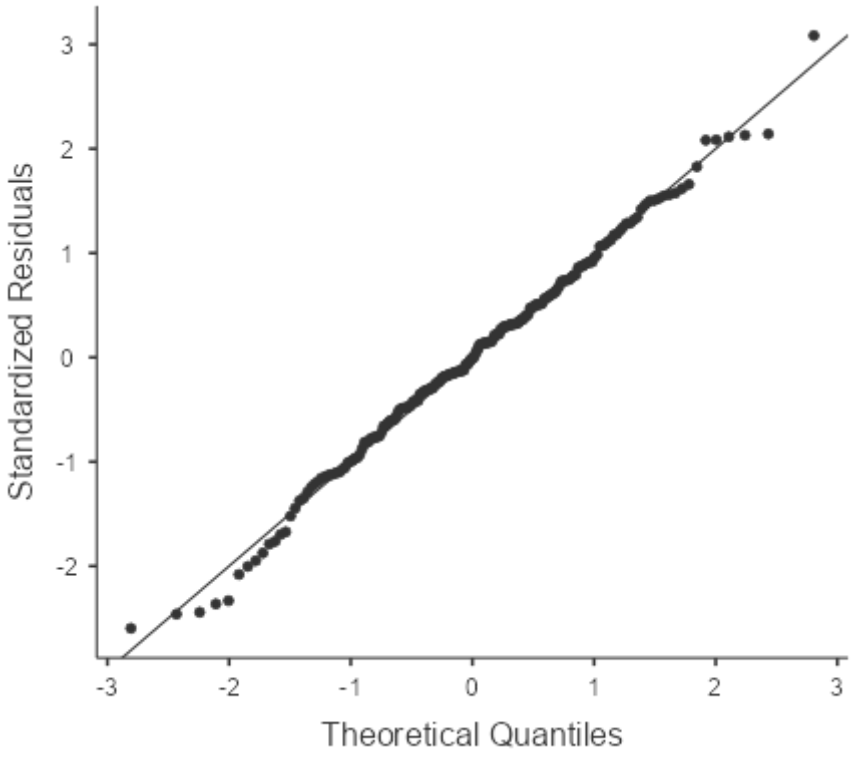
[3]

Collinearity Statistics

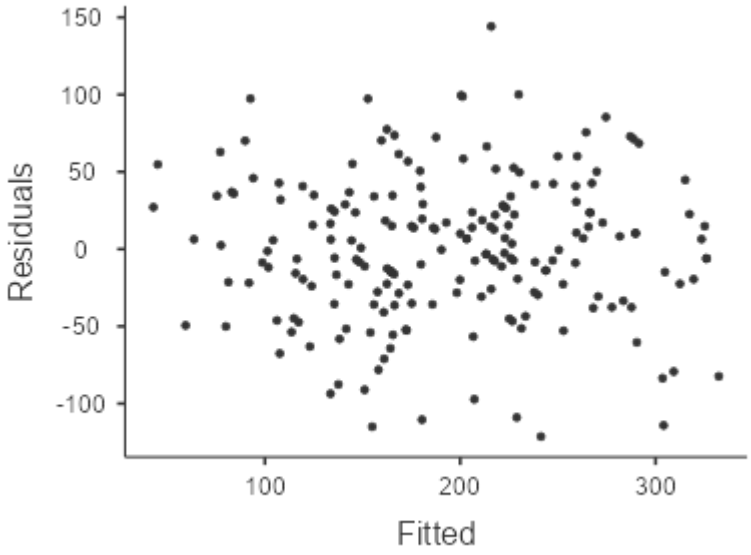
	VIF	**Tolerance**
Adverts	1.01	0.986
Airplay	1.04	0.959
Image	1.04	0.963

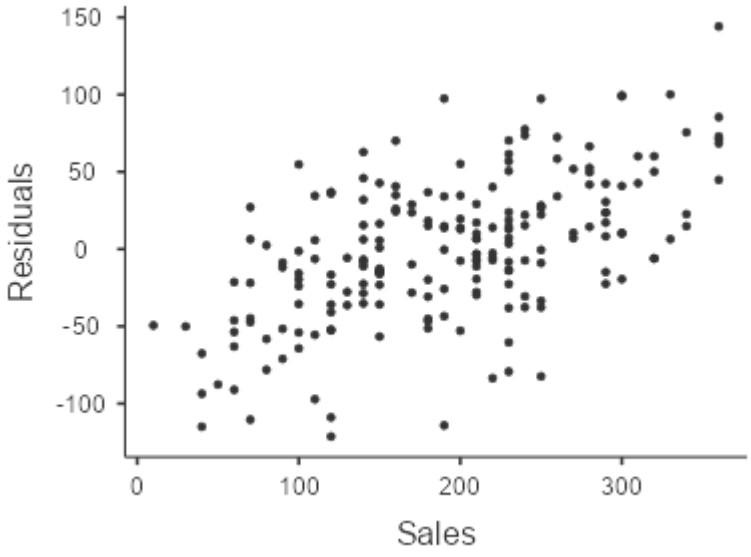
[3]

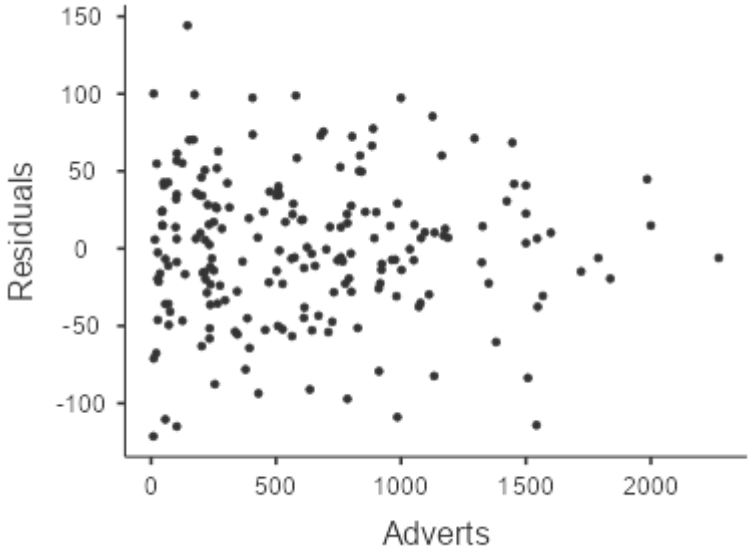
Q-Q Plot

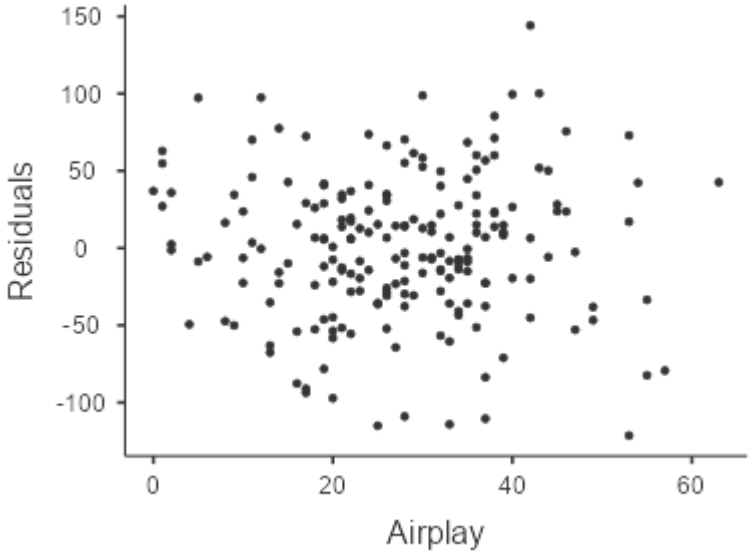


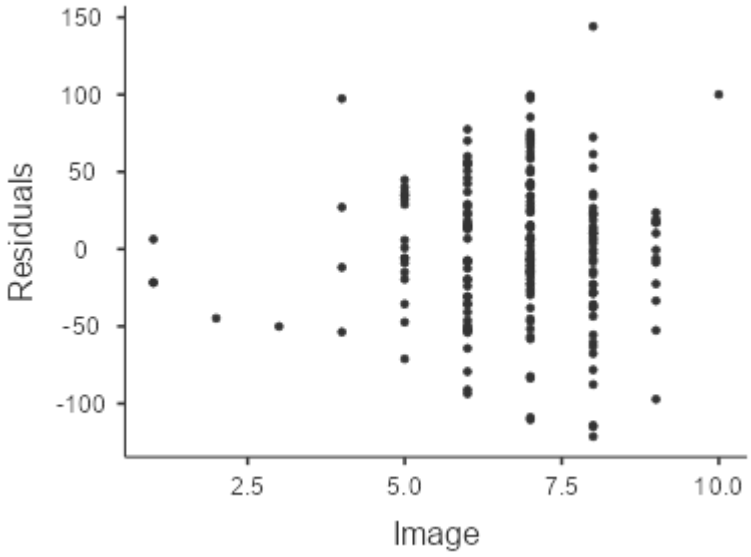
Residuals Plots




Residuals
150
100
50
0
-50
-100
0
100
200
300
Sales


Residuals
150
100
50
0
-50
-100
0
500
1000
1500
2000
Adverts


Residuals
150
100
50
0
-50
-100
0
20
40
60
Airplay



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[1] The jamovi project (2021). *jamovi*. (Version 2.2) [Computer Software]. Retrieved from https://www.jamovi.org.

[2] R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.0) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from MRAN snapshot 2021-04-01).

[3] Fox, J., & Weisberg, S. (2020). *car: Companion to Applied Regression*. [R package]. Retrieved from https://cran.r-project.org/package=car.