Results

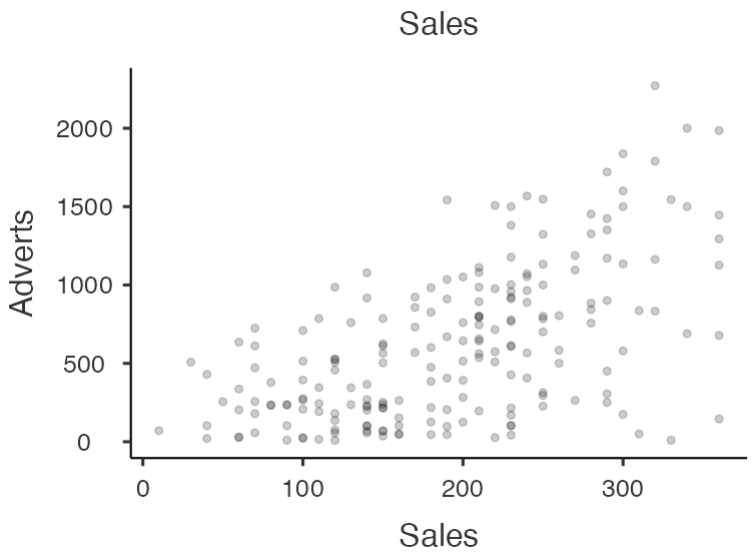
Relationships, Prediction, and Group Comparisons

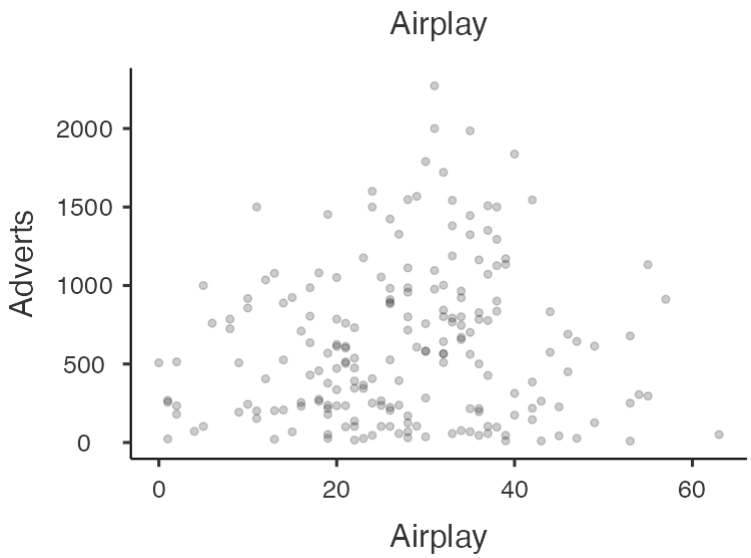
You have entered a numeric dependent variable and several numeric independent variables. Hence, linear regression analysis seems to be a good option for you! In order to run this analysis in jamovi, go to: Regression > Linear Regression

- 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





Correlation Matrix

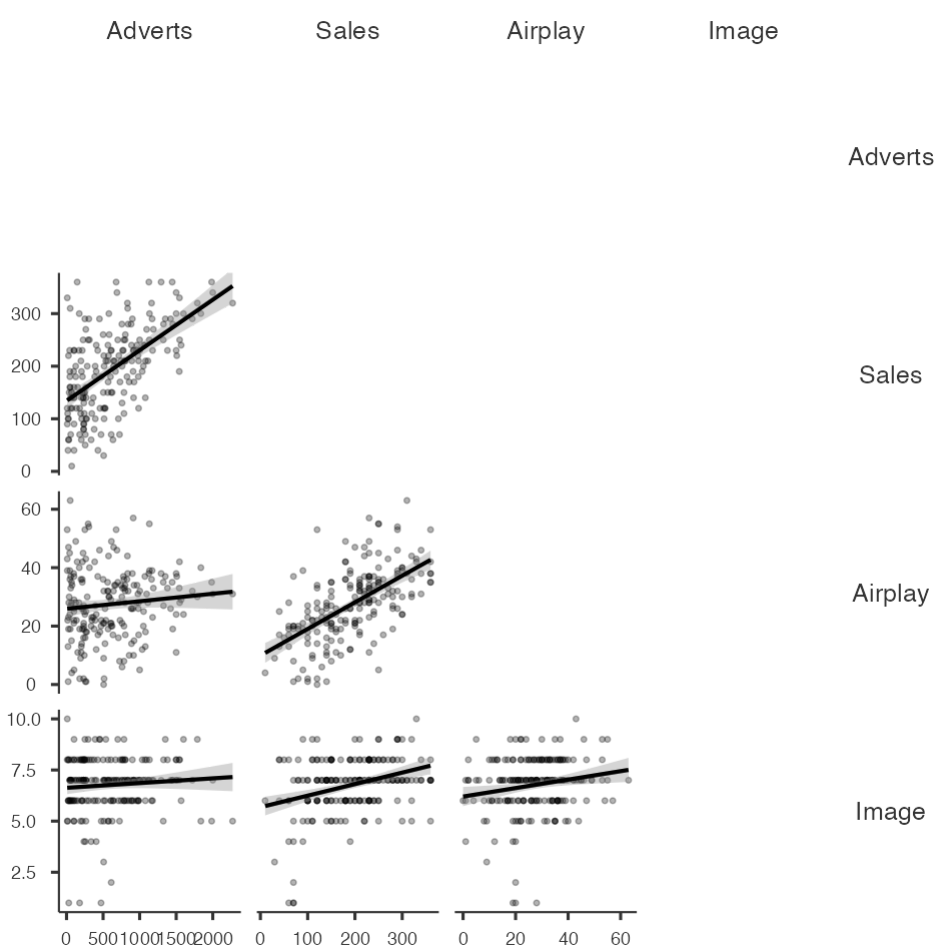
Correlation Matrix

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	—

Plot



Linear Regression

Model Fit Measures

				Overall Model Test			
Model	R	R^2	Adjusted R^2	F	df1	df2	p
1	0.326	0.106	0.102	23.6	1	198	<.001
2	0.815	0.665	0.660	129.5	3	196	<.001

Model Comparisons

Comparison							
Model		Model	ΔR^2	F	df1	df2	p
1	-	2	0.558	163	2	196	<.001

Model Specific ResultsModel 1Model 2

Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	p
Image	137822	1	137822	23.6	<.001
Residuals	1.16e+6	198	5849		

Note. Type 3 sum of squares

[3]

Model Coefficients - Sales

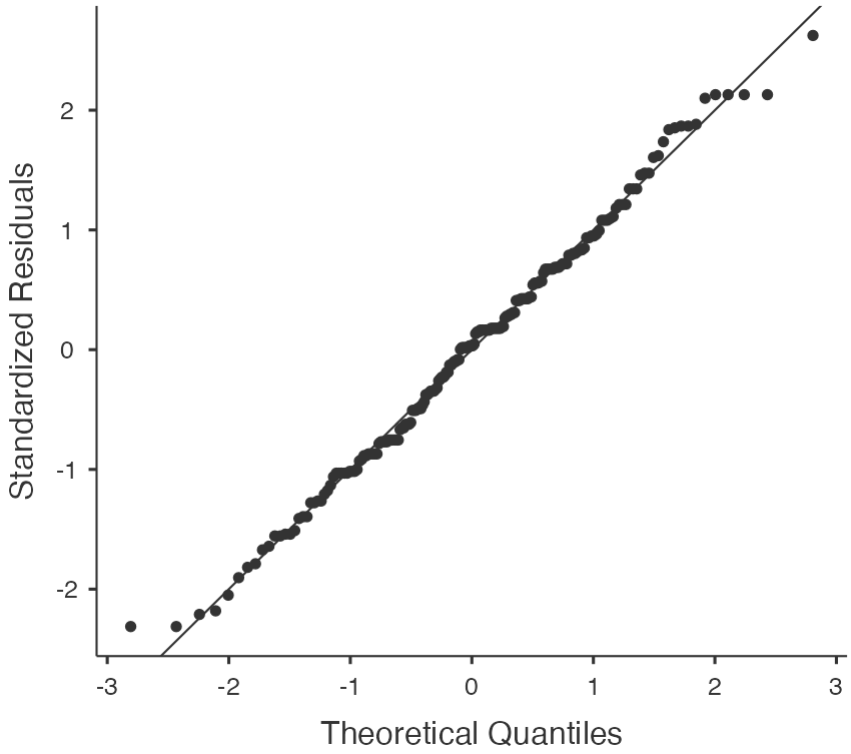
			95% Confidence Interval					95% Confidence Interval	
Predictor	Estimate	SE	Lower	Upper	t	p	Stand. Estimate	Lower	Upper
Intercept	65.5	26.86	12.6	118.5	2.44	0.016			
Image	18.9	3.89	11.2	26.5	4.85	<.001	0.326	0.194	0.459

Assumption Checks

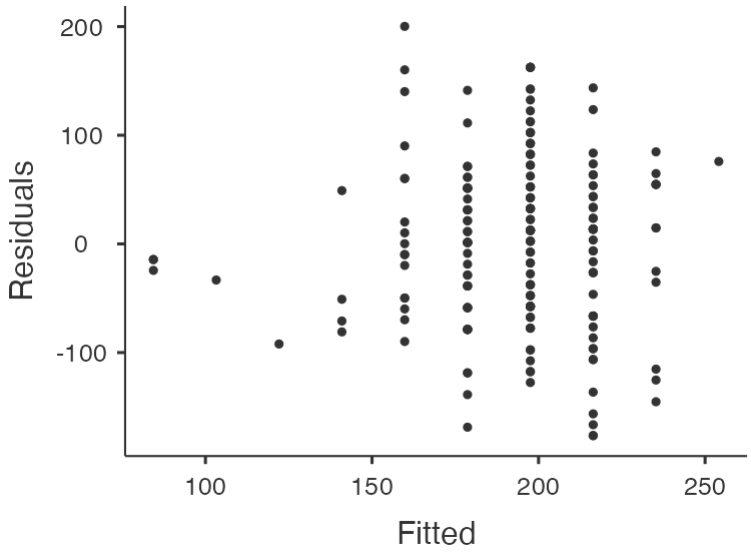
Normality Test (Shapiro-Wilk)

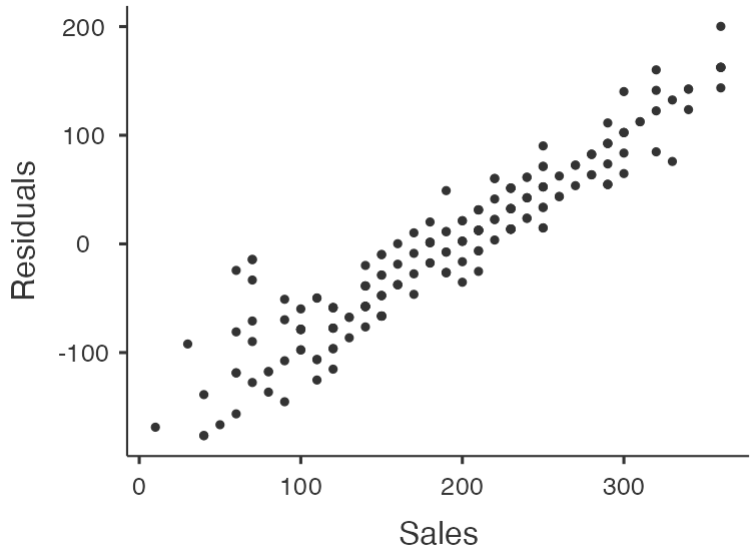
Statistic	p
0.993	0.508

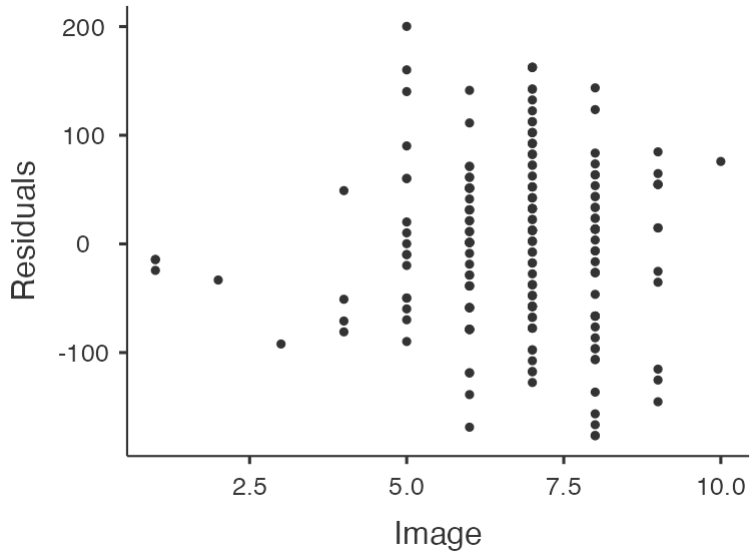
Q-Q Plot



Residuals Plots







Omnibus ANOVA Test

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

Note. Type 3 sum of squares

[3]

Model Coefficients - Sales

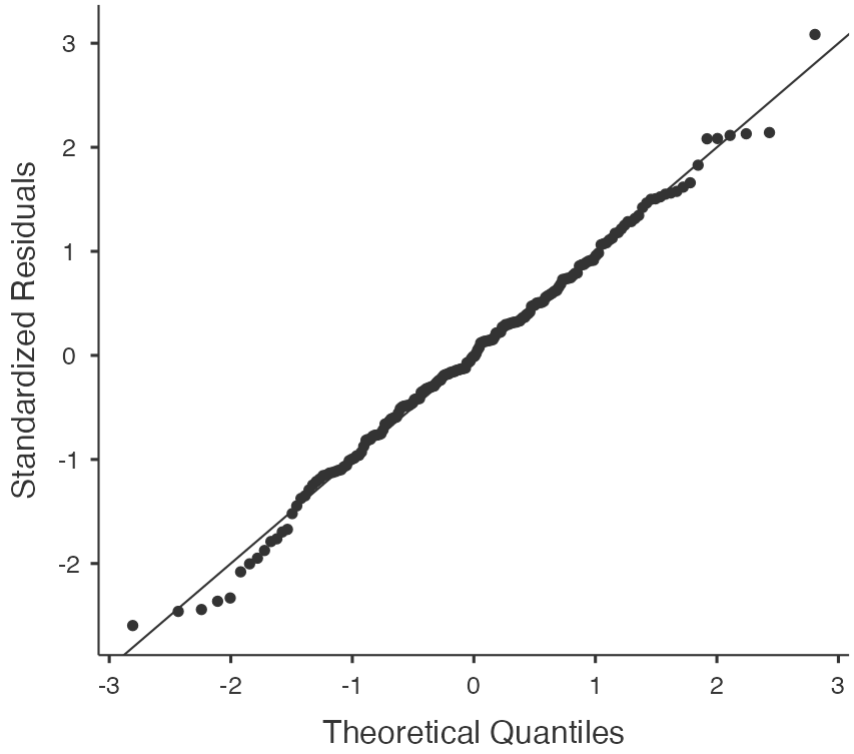
			95% Confidence Interval					95% Confidence Interval	
Predictor	Estimate	SE	Lower	Upper	t	p	Stand. Estimate	Lower	Upper
Intercept	-26.6130	17.35000	-60.8296	7.6037	-1.53	0.127			
Image	11.0863	2.43785	6.2786	15.8941	4.55	<.001	0.192	0.109	0.275
Airplay	3.3674	0.27777	2.8196	3.9152	12.12	<.001	0.512	0.429	0.595
Adverts	0.0849	0.00692	0.0712	0.0985	12.26	<.001	0.511	0.429	0.593

Assumption Checks

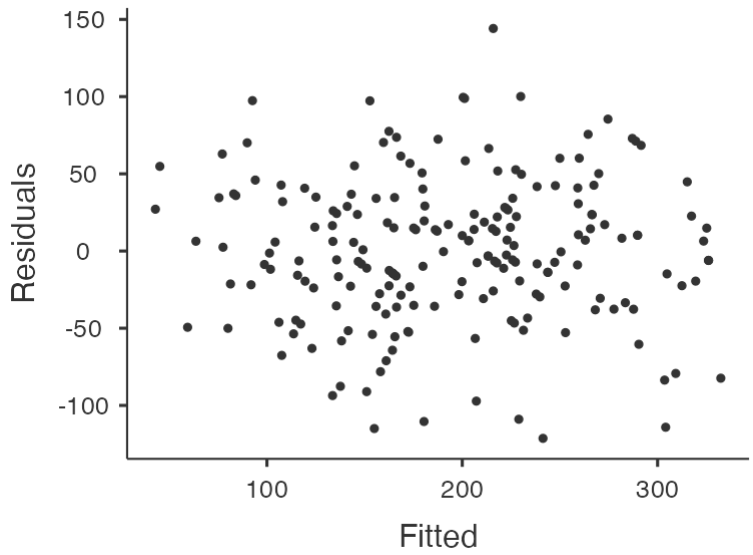
Normality Test (Shapiro-Wilk)

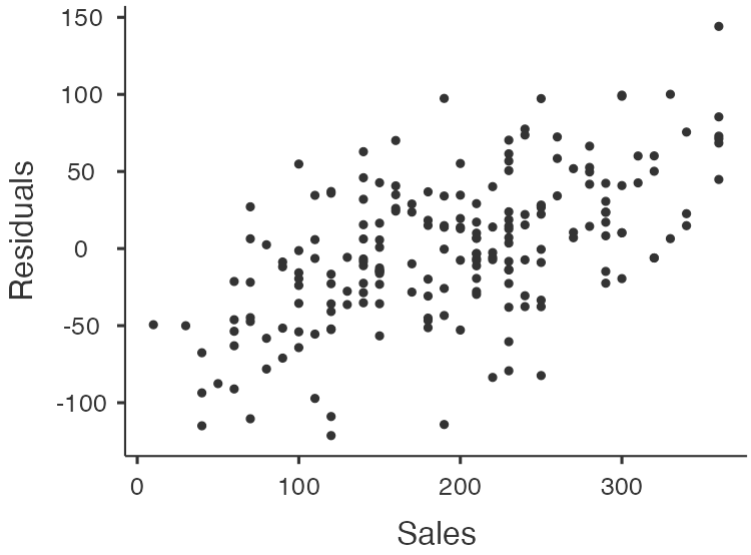
Statistic	p
0.995	0.725

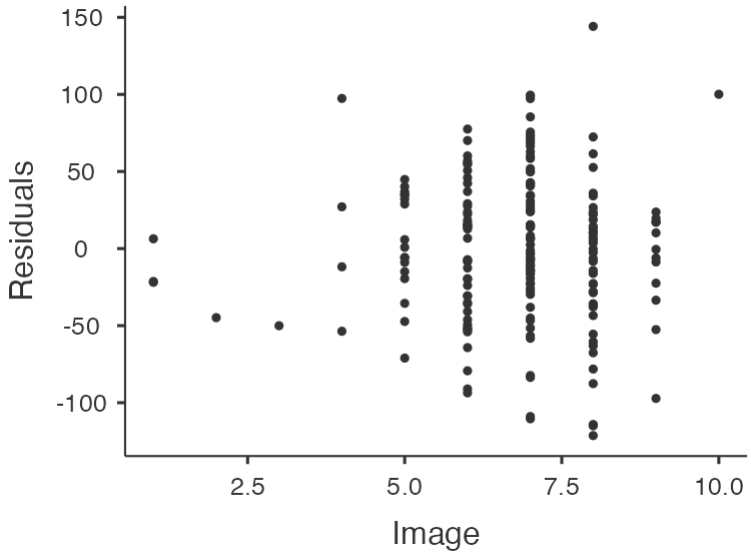
Q-Q Plot

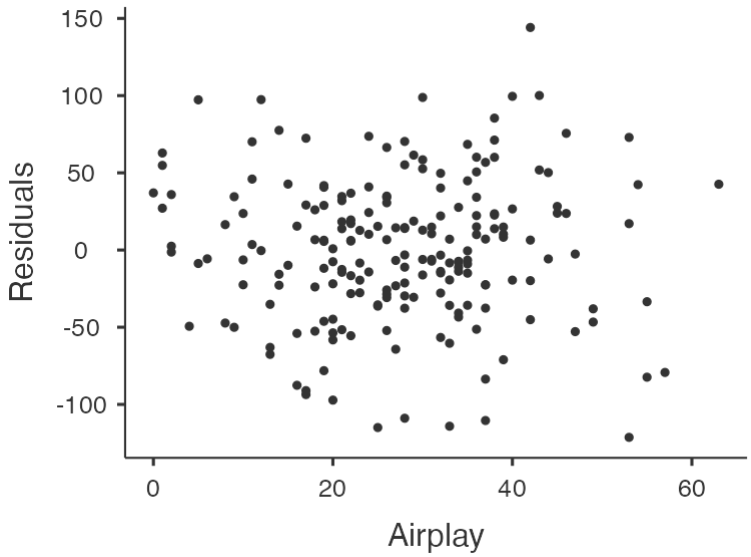


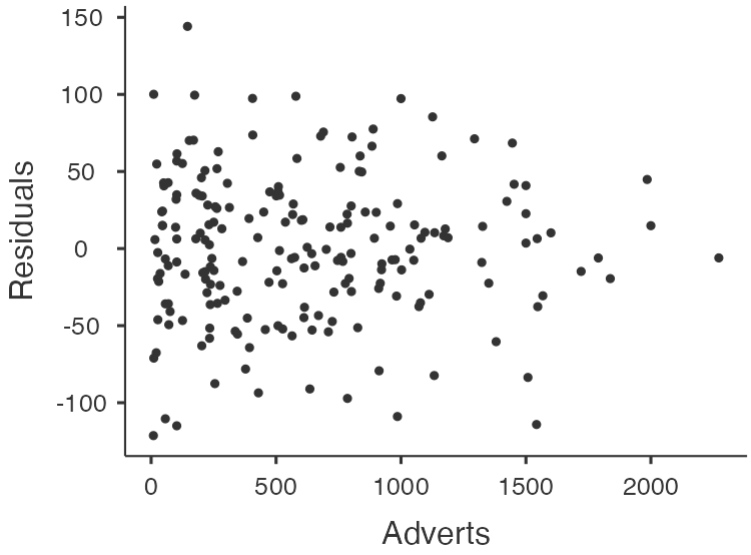
Residuals Plots




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


Residuals
150
100
50
0
-50
-100
2.5
5.0
7.5
10.0
Image


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



References

[1] The jamovi project (2022). *jamovi*. (Version 2.3) [Computer Software]. Retrieved from https://www.jamovi.org.

[2] R Core Team (2021). *R: A Language and environment for statistical computing*. (Version 4.1) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from MRAN snapshot 2022-01-01).

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