

# MLR Analysis and Backward Elimination

## All regressors

Model Fit Measures

Model	R	R <sup>2</sup>
1	0.287	0.0821

*Note.* Models estimated using sample size of N=181

Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	344.59955	138.74076	2.484	0.014
Views	-0.00344	0.00581	-0.592	0.555
Temperature	-1.34536	4.31467	-0.312	0.756
Fiesta	-77.84440	52.54461	-1.481	0.140
Holiday	101.35276	37.70040	2.688	0.008
Suspension	-52.96313	67.75840	-0.782	0.435
Promo	60.56783	31.74883	1.908	0.058
Posts	-12.57814	8.19222	-1.535	0.127

## Removed Temperature

Remaining: Views, Fiesta, Holiday, Suspension, Promo, Posts

Model Fit Measures

Model	R	R <sup>2</sup>
1	0.286	0.0816

*Note.* Models estimated using sample size of N=181

Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	301.86891	21.60015	13.975	<.001
Views	-0.00301	0.00563	-0.535	0.593
Fiesta	-79.99573	51.95437	-1.540	0.125
Holiday	100.41087	37.48157	2.679	0.008
Suspension	-52.50827	67.56673	-0.777	0.438
Promo	63.14557	30.57401	2.065	0.040
Posts	-13.30777	7.83053	-1.699	0.091

## Removed Views

Remaining: Fiesta, Holiday, Suspension, Promo, Posts

#### Model Fit Measures

Model	R	R <sup>2</sup>
1	0.283	0.0801

*Note.* Models estimated using sample size of N=181

#### Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	297.0	19.52	15.212	<.001
Fiesta	-78.2	51.74	-1.511	0.133
Holiday	100.2	37.40	2.679	0.008
Suspension	-49.0	67.10	-0.730	0.467
Promo	62.6	30.49	2.053	0.042
Posts	-14.7	7.38	-1.988	0.048

## Removed Suspension (SELECTED)

Remaining: Fiesta, Holiday, Promo, Posts

#### Model Fit Measures

Model	R	R <sup>2</sup>
1	0.278	0.0773

*Note.* Models estimated using sample size of N=181

#### Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	295.8	19.43	15.23	<.001
Fiesta	-76.3	51.60	-1.48	0.141
Holiday	97.5	37.17	2.62	0.009
Promo	63.7	30.41	2.10	0.037
Posts	-14.6	7.37	-1.98	0.049

## Removed Fiesta

Remaining: Holiday, Promo, Posts

#### Model Fit Measures

Model	R	R <sup>2</sup>
1	0.257	0.0658

*Note.* Models estimated using sample size of N=181

Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	291.4	19.26	15.13	<.001
Holiday	89.4	36.88	2.42	0.016
Promo	65.8	30.48	2.16	0.032
Posts	-13.9	7.38	-1.88	0.062

## Removed Posts

Remaining: Holiday, Promo

Model Fit Measures

Model	R	R <sup>2</sup>
1	0.217	0.0472

*Note.* Models estimated using sample size of N=181

Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	261.7	11.0	23.70	<.001
Promo	48.0	29.2	1.64	0.102
Holiday	94.6	37.0	2.56	0.011

## Removed Promo

Remaining: Holiday

Model Fit Measures

Model	R	R <sup>2</sup>
1	0.181	0.0327

*Note.* Models estimated using sample size of N=181

Model Coefficients - Sales

Predictor	Estimate	SE	t	p
Intercept	268.3	10.3	25.96	<.001
Holiday	91.5	37.2	2.46	0.015

## References

[1] The jamovi project (2024). *jamovi*. (Version 2.6) [Computer Software]. Retrieved from <https://www.jamovi.org>.

[2] R Core Team (2024). *R: A Language and environment for statistical computing*. (Version 4.4) [Computer software]. Retrieved from <https://cran.r-project.org>. (R packages retrieved from CRAN snapshot 2024-08-07).