

### Levene's Test Results:

Statistic: 1.9893651956764993, P-value: 0.13690253117827733

The variances across segments are not significantly different ( $p \geq 0.05$ ), indicating the assumption of homogeneity of variances is met.

### Bartlett's Test Results:

Statistic: 3.750855311892396, P-value: 0.15328939770299424

The variances across segments are not significantly different ( $p \geq 0.05$ ), indicating the assumption of homogeneity of variances is met.

### OLS Regression Results

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Dep. Variable: log\_sales R-squared: 0.000  
Model: OLS Adj. R-squared: -0.000  
Method: Least Squares F-statistic: 0.4556  
Date: Sat, 26 Oct 2024 Prob (F-statistic): 0.634  
Time: 18:50:20 Log-Likelihood: -8566.6  
No. Observations: 4502 AIC: 1.714e+04  
Df Residuals: 4499 BIC: 1.716e+04  
Df Model: 2  
Covariance Type: nonrobust

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	coef	std err	t	P> t	[0.025	0.975]
Intercept	4.1811	0.033	125.868	0.000	4.116	4.246

C(Segment)[T.Corporate]	0.0038	0.055	0.068	0.946	-0.104	0.112
C(Segment)[T.Home Office]	-0.0602	0.068	-0.890	0.374	-0.193	0.073

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Omnibus:	151.820	Durbin-Watson:	2.003
Prob(Omnibus):	0.000	Jarque-Bera (JB):	99.003
Skew:	0.239	Prob(JB):	3.18e-22
Kurtosis:	2.453	Cond. No.	3.32

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Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

ANOVA Test Results:

F-statistic: 0.45559371457787307

P-value: 0.6341006489489389

Fail to reject the null hypothesis: There are no significant differences between the segments.