**Laptop**

Call:

lm(formula = net\_Sales ~ ., data = kol.PE\_Laptop)

Residuals:

Min 1Q Median 3Q Max

-0.2400 -0.1321 -0.0735 -0.0088 0.9545

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 0.354418 0.103446 3.43 0.00079 \*\*\*

kohl\_Regular\_price -0.010415 0.015973 -0.65 0.51539

kohl\_disc\_perc -0.267132 0.378131 -0.71 0.48103

kohl\_pdt\_desc\_length 0.000397 0.000479 0.83 0.40885

Price\_rat\_target\_final\_pr -0.183423 0.090674 -2.02 0.04490 \*

TCIN\_var -0.116090 0.070578 -1.64 0.10214

Amz\_rating1 0.063871 0.317950 0.20 0.84107

reviews\_6\_M -0.025062 0.039713 -0.63 0.52898

Amz\_No\_of\_images -0.010150 0.005341 -1.90 0.05933 .

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.245 on 147 degrees of freedom

Multiple R-squared: 0.0834, Adjusted R-squared: 0.0335

F-statistic: 1.67 on 8 and 147 DF, p-value: 0.11

|  |  |  |
| --- | --- | --- |
|  | **Laptop** |  |
| **Variables** | **Beta's** | **Expected Change** |
| kohl\_Regular\_price | -0.010415 | 0.999568988 |
| kohl\_disc\_perc | -0.267132 | -0.267132 |
| kohl\_pdt\_desc\_length | 0.000397 | 0.000397 |
| Price\_rat\_target\_final\_pr | -0.183423 | 0.992436379 |
| Amz\_rating1 | -0.11609 | -0.11609 |
| TCIN\_var | 0.063871 | 0.063871 |
| reviews\_6\_M | -0.025062 | -0.025062 |
| Amz\_No\_of\_images | -0.01015 | -0.01015 |
|  |  |  |
|  |  |  |
| **Expected Y for log Var** |  |  |
|  | exp((beta)\*log([100+p]/100)) |  |
|  | Percentage Change :p=10 |  |
|  |  |  |
| **Price\_Elasticity** | kohl\_Regular\_price | -0.010415 |
|  | Price\_rat\_target\_final\_pr | -0.183423 |

**Pre-modifications over data**

1. It is most preferable to have more data points among all data which helps us providing better fit.

**Pre-modifications over defining variables:**

1. Defining variables should be of identical and independently distributed (property of iid/normality) results in overcoming the problem of multi-collinearity.
2. Reduce as many number of missing cases (values) as possible which it helps in force fitting the data by replacing its value by zero (results in reducing average/means).
3. It is advisable to have more periodical price changes results in establishing better elasticity.

**Conclusions on Model output**

1. As there are no much price changes over weeks, the price is in-elastic except Amazon regular price.
2. It is recommended to take 10% change in price for later weeks following dynamic pricing.
3. Since F-statistic is too small, we fail to reject null hypothesis and conclude that sales are having no significant relationship among all explanatory variables.