Walmart case study

**Objective->**

To identify the impact of all independent variables(Promotion Index, FeatureAdvertising Index) on dependent variables(Sales)

**Justification->**

Since DV and all the IV’s are quantitative in nature, so we will use regression analysis

**Data analysis->**

H0 (Null Hypothesis) : The model is not statistically significant

H1 (Alternative Hypothesis): The model is statistically significant

First Step:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ANOVA |  |  |  |  |  |
|  | *df* | *SS* | *MS* | *F* | *Significance F* |
| Regression | 2 | 7.33917E+11 | 3.66959E+11 | 10.82865655 | 5.69043E-05 |
| Residual | 97 | 3.28711E+12 | 33887722216 |  |  |
| Total | 99 | 4.02103E+12 |  |  |  |

Here p<alpha so we reject nul hypothesis and accept H1 therefore we can say model is significant

Second Step:

Interpretation of r^2: (Coefficient of determination): Here r^2 value is 0.18,

So that is below 0.50 that means model is not good. This value explains only 18% variation in the change of DV wrt changes in the IV’s.