

Is your model additive or multiplicative ?

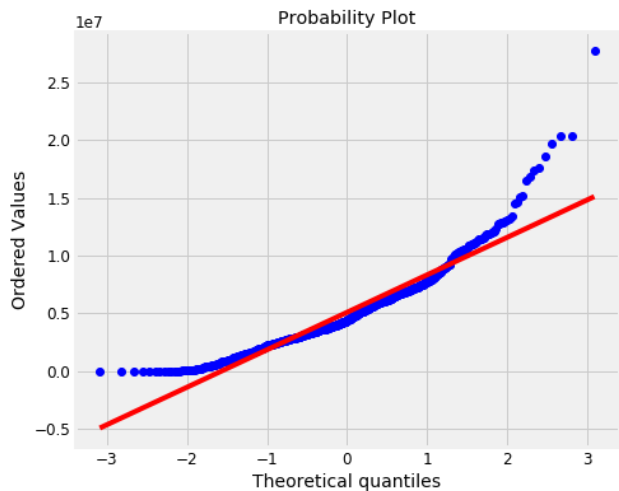
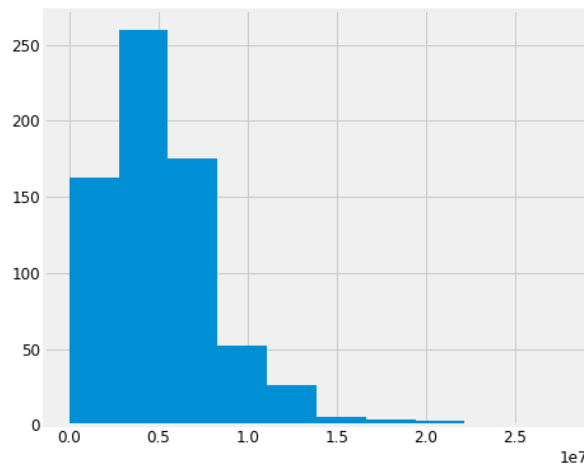
Additive model is used when the variance of the time series doesn't change over different values of the time series.

On the other hand, if the variance is higher when the time series is higher then it often means we should use a multiplicative models.

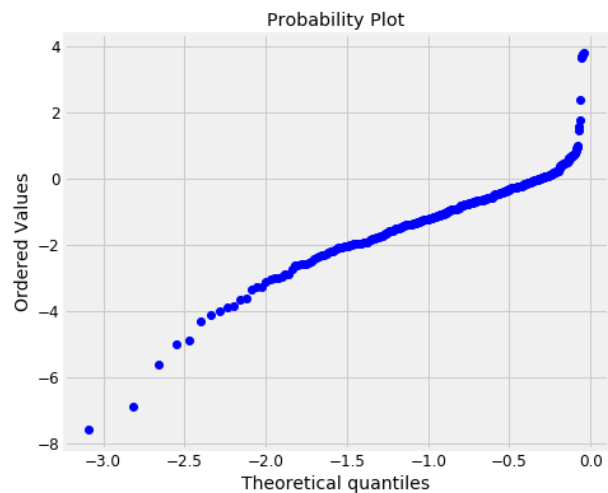
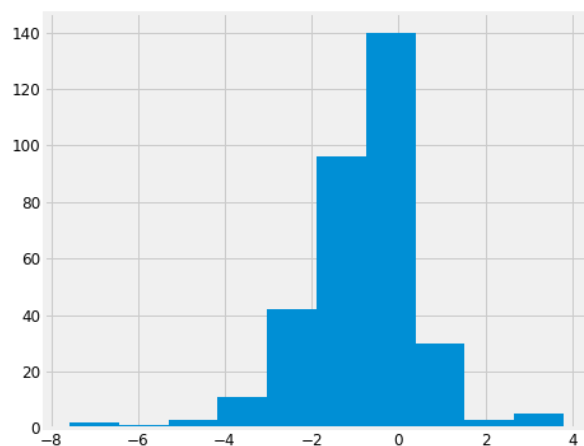
To check perform below steps:

1. Plot histogram of output variable (ex. revenue).
2. Calculate $\log(\text{revenue}_{i+1} / \text{revenue}_i)$
3. Plot histogram for above logarithm.
4. If second plot is more likely to be normally distributed then choose multiplicative model. Else, choose additive model.

I. Plot for Output variable.



II. Plot for logarithmic calculation.



Plot I is more normal than Plot II, Therefore we have to use **additive model**.