Last question:

Question: Our question for the group was what should the guidelines be for when to use out-of-sample validation vs. cross-validation?

Out-of-sample validation should be used when you have the resources (financial or otherwise) to replicate a study. You can use data generated from another experiment with the same design to validate your model. Sometimes, however, running a replica experiment is too costly or not feasible. In this case, you can reserve a portion of the data to validate the model you develop with the rest of your data.

Question:  Is the systematic Bayesian approach more successful or is Frequentism?

Different approaches are more suitable for different models. Bayesian statistical modeling relies on "prior" information about parameters, variables, etc. This is useful for building more "intuition" into your models or parameter estimates. However, sometimes observations, parameters, and variables are independent of each other and prior information is not necessary. Even when prior information is available you also have to weigh whether additional complexity will add enough benefit to the accuracy of your model. Frequentism still offers an important perspective. Increased complexity is not always better.