

This study contains paired comparison analysis suggested by Barren using informative priors. Dirichlet-gamma-gamma and conjugate are used as prior distributions for the analysis. The posterior distribution for the parameters of the model is derived and used to estimate means, modes and standard deviations. Elicitation of hyper parameters is performed by using the prior predictive distribution. Graphs of the marginal posterior densities of the parameters are also presented. Preference probabilities for the confirmation of the ranking are obtained. The predictive probabilities of the treatments for the future single comparison are also calculated. Hypothesis testing of the parameters is done along with the appropriateness of the model that has been checked using χ^2 test. This analysis is performed for two, three and four treatments. The results of Dirichlet-gamma-gamma and conjugate are also compared and most of the calculated values agree up to two significant digits. It is observed that ranking of the treatments remains the same under both priors.