ABSTRACT

India has introduced the trade of Futures and Options (F&O) segment during 2001. Options are famous for their ability to cap the downside risk and keep the upside potential unlimited. The Black - Scholes (BS) option pricing model, not only won the Nobel Prize but also the benchmark of all option exchanges throughout the world. After this discovery, the exchange traded options attained the highest growth rate and became the risk management tool.

In India, all the options that are offered are not traded fully; only about 16.43% of them are actually traded. This indicates that either the investors are unaware of them or do not understand about them. Empirical studies about option pricing will enlighten the academicians and investors about the practicability of the BS model and the relationship between the theoretical and actual option price. Moreover, they may understand the factors that affect the option price and the sensitivity of these factors.

This research, covering a period of five years and ten months with about a lakh options as sample is one of the most extensive empirical examination reported in the literature to date. The sample covered almost all important industries like Automobiles, Banks, Cements, Engineering, FMCG, IT, Pharmaceuticals, Petroleum, Shipping and Steel.

This research covered almost all the angles of an empirical study such as the predictability, sensitivity of the model to its variables, model adequacy test by residual analysis, and testing the validity of the assumptions. It also suggests a new method to improve the predictability of the model.

It found the weak points of the model like biases and deviation of the assumptions of the model. In spite of the same, the predictability is good and is better than the studies made abroad. The new suggested method of using Mean Implied Volatility improved the mean predictability by about thirty percentages, which will be more useful to the investors / academicians. Also the improvements are felt in all moneyness, life of options, volatility etc making the suggested one more versatile and broad - based.