ABSTRACT
The Capital market is the life line of any economy. The capital market channelizes the savings and investment between the suppliers of capital and the users of capital. The Indian capital market witnessed a lot of changes in the post globalization era. The introduction of paperless trading, revamping the settlement days and the screen based trading paved the markets to the next level. In the Indian equity markets, the futures markets existed unofficially (Badla trading). The derivative products were introduced in the capital market in a systemized manner in 1999. Derivative assets are the financial contracts that derive their value from the underlying asset. The underlying assets can be index, stocks, commodities, currencies, exchange rates, rate of interest, weather etc.,

Speculators use the financial leverage and market volatility as their advantage to make financial gains and scout for more information. The Primary function of Futures market is price discovery. The effective futures market should generate prices that express consciously formed opinions on cash prices in the future, and should transmit that information throughout the marketing system in a timely manner (Working, 1948). Therefore study of Price discovery and Lead lag relationship is essential to determine the futures market efficiency. The derivative markets are known for their volatile behavior. Volatility may be defined as the degree of the price fluctuates over a given period of time. Volatility is a basis for risk in financial terms. Portfolio managers, investment managers, risk arbitrageurs closely watch the volatility in the market as it gives new opportunities to enter into the market and also it has a major impact over their investment.
The study is based on the secondary data for examining the price discovery between spot and futures prices of selected Mid-cap shares and their relationship during the bull and bear phase of the market for the period from its inception in the futures market to 31st December 2015. Further the study also attempts to study the impact of volatility, volume and open interest on the spot and the futures market prices.

For the purpose of examining the price discovery, Johansen cointegration model and Vector error correction models were used and the ARCH/GARCH model to draw the conclusion. Our findings suggest that, the price discovery process, futures market play a major role in price discovery function in majority of the Mid-cap stocks and also futures market leading the spot market in majority of the shares. In the short term relationship, most of the shares are exhibiting the short term relationship between the spot and the futures market. The Trading volume of the futures market is creating an impact on the majority of the Mid-cap futures market and the spot market. In the Open interest, majority of the Mid-cap shares indicates its impact on the spot and the futures prices.

**Keywords:** Futures price discovery, lead lag relationship, volatility Modelling, GARCH Models, Open interest