

## NIFTY prediction technique using Big Data analysis approach

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### Abstract

It's pretty obvious that most of the traders would like to trade in options for many reasons like needs very less capital for option buying. However some do write options for a high probability of profitable trade. However its quite a wonder that when all stocks have monthly expiry the index holding the stocks have weekly expiry. Lets have an inside look of why it's the way it is and what's the impact of it on traders.

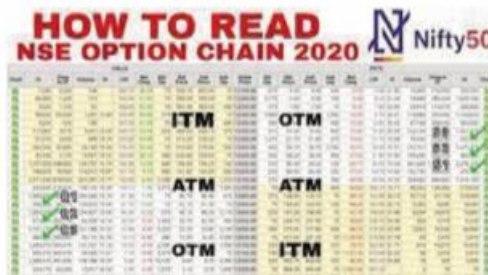
Received 08 July, 2024; Revised 21 July, 2024; Accepted 23 July, 2024 © The author(s) 2024.

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### Option Basics

Its statistically proved that majority of the retail investors tend to buy options as the investment required will be pretty less as compared to span margin of future market thereby assume to make big profit with small investments which is more unlikely to happen. However theory says option buying is of limited risk and writing options is of unlimited risk its actually vice-versa. Let's have an insight of what actually the scenario is in options market.

### HOW TO READ NSE OPTION CHAIN 2020



The image shows a screenshot of an NSE Option Chain for Nifty50. The title is "HOW TO READ NSE OPTION CHAIN 2020 Nifty50". The table has several columns, with the following labels visible: ITM, OTM, ATM, and ITM. The rows represent different strike prices and their corresponding call and put option data.

Market tend to behave very volatile sometimes and less volatile sometimes based on many parameters including both price action and external situations as well. India Vix of course gives an indication about the volatility but still option buyers go under loss 90% of the times. Let's see the truth and myth behind options trading.

Options buying as stated needs very less capital. Considering an example let stock ABC Ltd have spot price of 100 rupees. 100ceof ABC Ltd be at 10 rupees and the lot size considering as 1000 buyers pays a premium of 10000 to buy 1 lot of ABC Ltd 100ce. However a writer has to deposit a span margin of around 100000 inr to sell the same option. if all option buyers can make profit then market cannot sustain as loss on writers will be massive. So technically speaking its only the writers who makes profit.

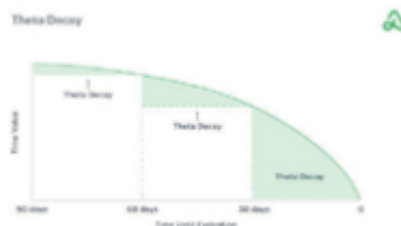
## CALL AND PUT OPTIONS



Also its pretty obvious that majority of the writers are institutions who invest several thousands of crores everyday. Being Big investors they are the one who drives the market by varying the price action as per their convenience. This naturally creates bit of panic in market and retail investors losses hit when market makes violent moves.

### THETA EFFECT

As the market movement is bit stagnant or makes small moves the premium melts hugely because of theta effect. So if the expiry is monthly then naturally time remaining to cross the strike price will be considerably more which reduce theta effect on the premiums . This makes the institutions to wait for a long time for the premiums. This makes the institutions to wait for a long time for the premium to receive completely .Hence it is so well designed that in a weekly expiry operators/institutions can play a vital role in price action more often especially on expiry day. Moving further different indices under NSE have different days for expiry like FINNifty on Tuesday, Nifty and Bank Nifty on Thursday.



So its pretty clear that its only option writers who makes more money in market either logically or statistically. Since very long time. So the premium are bound to decay or melt soon in order for these big players to continue the game and control the market. It is in this regards that NSE wish to have early expiries so that institutions can make most out of it.

### Authors



*Ms. Suma Bhat Graduated in Symbiosis in the year 2009 in the field of Business Administration and specialized in Human Resource management. She has been awarded by IBM for contributing innovative techniques. She has also won many awards in her schooling and also a practitioner of acupressure techniques where she has treated more than 800 people. She has taken the financial sector as a passion and has been serving imparting knowledge of financial literacy and financial Management. She has contributed in data extraction and information gathering for the current article and has been supportive in giving ideas during capital market workshops and training.*



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### **References**

- [1]. SENTENCE EMBEDDING PREDICTION. IPYNB-USED the event EMBEDDINGS INTO AN L.S.T.M
- [2]. [HTTPS://GITHUB.COM/SRIZZLE/DEEP-TIME-SERIES/PAPERS-RELEVANT-PAPERS](https://github.com/SRIZZLE/DEEP-TIME-SERIES/PAPERS-RELEVANT-PAPERS) (USED FOR REFERENCE )
- [3]. [HTTP://EN.WIKIPEDIA.ORG/WIKI/STOCK\\_MARKET](http://en.wikipedia.org/wiki/Stock_market)
- [4]. [HTTPS://WWW.INVESTOPEDIA.COM/TERMS/S/STOCKMARKET.ASP](https://www.investopedia.com/terms/s/stockmarket.asp)
- [5]. [HTTPS://WWW.ANALYTICSVIDHYA.COM/BLOG/2021/01/IMAGE-CLASSIFICATION-USING-CONVOLUTIONAL-NEURAL-NETWORKS-A-STEP-BY-STEP-GUIDE](https://www.analyticsvidhya.com/blog/2021/01/image-classification-using-convolutional-neural-networks-a-step-by-step-guide)
- [6]. [HTTPS://MEDIUM.COM/@RAGHAVPRABABHU/UNDERSTANDING-OF-CONVOLUTIONAL-NEURAL-NETWORK-CANDEEP-LEARNING-99760835F148](https://medium.com/@RaghavPrababhu/understanding-of-convolutional-neural-network-candeeep-learning-99760835f148)
- [8]. [HTTPS://WWW.IRAJ.IN/JOURNAL/JOURNAL\\_FILE/JOURNAL\\_PDF/14-481-153485282984-86.PDF](https://www.iraaj.in/journal/JOURNAL_FILE/JOURNAL_PDF/14-481-153485282984-86.PDF)
- [9]. [HTTPS://ARXIV.ORG/FTP/ARXIV/PAPERS/1607/1607.01958.PDF](https://arxiv.org/ftp/arxiv/papers/1607/1607.01958.pdf)
- [10]. [HTTPS://GITHUB.COM/ADITYAJAIN](https://github.com/AdityaJain)