# "Options Trading Strategy: A quantitative study from an Investor's POV"

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**ABSTRACT:** Thisresearch aims to study some of the hidden yet evident features in the trading of options andfinding ways to maximize profits. It studies 7 different stocks, out of which, 3fall under the FMCG Sector, 3under the Banking Sector traded in the National Stock Exchange and one under Indices. The introduction of options in the Indian stock market has left any trader in the stock marketinspired with the way they function but they are not as simple as they seem to be. One of the conclusions that we can draw from Binomial Option Pricing Model is the endless number of possibilities that can result in one strike price of the option. There is a need to find an independent way to observe the value of an underlying to avoid conflicts of interest underthis market. Hence, in this research study, we undertake to determine a strategy with anobjective of providing simplicity and a new arena of analytical techniques through SimpleAverage Method, Timing Risk, and Speculation.

**KEY WORDS:** Options Pricing, Simple Average Method, Timing Risk, Stop Loss Strategies, Speculation, Monthly Trend Analysis, Seasonality.

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# I. INTRODUCTION

Finance is an art of recognizing opportunities and exercising strategies to get the most benefit out of thesystem. Finance takes its existential significance from a famous scientific theory named Law of conservation mass which states that 'Matter is neither created nor destroyed'. It can only be transferred. This statementrelates to the concept of finance when we replace the word 'matter' with 'money'. The very existence of aneconomy is based on the underlying fact that money is a limited resource which can only be circulated andnot created. The Indian economy is dynamic with fresh advancements being introduced in quick succession, where each one overpowers the other, not only in terms of volume or numbers but also in terms of their increased detail to investor preferences. One such market in India is the Derivatives Market which was introduced in the year 2000. It explicitly caters to the risk management preferences of the investors. A derivatives market operates based on a mechanism where the value of the derivative is derived from the value of an underlying asset. Options are a type of derivatives that grants the right to buy or sell an option at a predetermined price but does not obligate to execute the contract on maturity. Since there are elements of risk and uncertainty involved, we are presenting a simple yet systematic approach to determine the price of an option by considering the average price movements in the prices of the underlying

# II. REVIEW OF LITERATURE

- 1. (Pallav i, Raju, & Raju, April 2013)"OPERATIONAL STRATEGIES AND PERFORMANCE OF OPTIONS TRADING IN INDIA". This Paper is an Introduction to the derivative market and how an investor can control the portfolio risk through Options. Before the discussion of the operational strategies for option trading they have briefly described what an option is, with its types and how it works in the derivative market. Further discussion is made regarding different strategies such as long call, Long put, Short call, short put, Straddle and many more which are useful for different market perceptions of the price movements. They have utilised the data for Derivatives Turnover, Growth of Index and Stock Options trading and contracts from the year 2001 to 2012 to study the performance of options in derivatives trading and how the strategies can be applied for different traders.
- 2. (Rao, June 2012) In his article "DEVELOPING OPTION STRATEGIES BY USING TECHNICAL ANALYSIS: A CASE STUDY OF AUTOMOBILE SECTOR" investigates how Exponential Moving Average Method can be used in selection of stock option strategy in order to manage risk associated with investment in stock option market. For the study to develop strategies for investors Auto industry was selected and the data was collected from National stock exchange and Bombay stock exchange. With the

use of Exponential moving average method Tata Motors, Maruti Suzuki India and Mahindra and Mahindra were analysed using their historical strike prices, put and call option prices to see whether the prices are expected to rise in future and how it is beneficial to invest in these options.

- 3. (Krishnan & G, January 2018)in this article named "**Performance Analysis of Volatile Strategy under Indian Options Market**" explains, Option trading strategy are used to minimize our risk and maximize profits option strategy are both combination of call and put. The trader should thoroughly analyze the market to identify the appropriate strategy which can face the high volatile market. Volatility is the reason for the generation of strategies. Option strategies are used to reduce the risk during high fluctuations in the market. Extreme movements in markets leads to high payoff on these strategies, due to which an effort is taken to generalize the concepts of strangle and straddle in National Stock Exchange (NSE) in India. According to option market experts straddle and strangle is the most suitable volatility strategy. Hence, a question arises, which strategy generates higher returns. Therefore the analysis is undertaken using Sharpe, Treynor and Jensen's alpha ratios. The findings indicate that, when the uncertainty in the market is more, it is better to adopt strangle strategy. Hence, trader should analyse the market and then decide
- 4. (Srivastava, 2004)in his article named "Informational Content of Trading Volume and Open Interest An Empirical Study of Stock Option Market in India" analysing the stock option introduction in India. Predicting underlying stock prices and the information efficiency of stock volume. Since Indian market is highly volatile it helps us to gain our knowledge on role of trade volume and open interest in stock option market, this article examines the role of certain non-price variables such as trading value and open interest determining the price of underlying shares in cash market from the stock option market. Call and put options, open interest and volume based predictors are used in order to examine the significance of these variables. The result says that the predictors have significant explanatory power with the open interest more, when compared to the trading value. The study provides the parameters for the uninformed investors to predict the price of the underlying shares with the help of stock option market data and formulate profitable strategy. Finally it provides the support to the view that presence of option market helps improve the price discovery in underlying asset market

## **III. RESEARCH DESIGN**

# 3.1 Title: "Options Trading Strategy: A quantitative study from an Investor's POV"

#### 3.2 Statement of Problem:

A derivatives market operates based on a mechanism where the value of the derivative is derived from thevalue of an underlying asset. Since there are elements of risk and uncertainty involved, there is a need tofind an independent way to observe the value of an underlying to avoid conflicts of interest under thismarket. In this research study, a simple yetsystematic approach is undertaken to determine the price of anoption by considering the average price movements in the prices of the underlying.

#### 3.3 Hypothesis:

**H0:**The performance of an option depends on the performance of the performance respective underlying stock **H1:** The performance of an option does not depends on the performance of the performance respective underlying stock

#### **3.2 Research Objectives**

This study has the following objectives:

- To understand the relationship between average stock prices, monthly trends and seasonality of the underlying and option prices.
- To determine the factors inherent and undiscovered in the options market and use it to the benefit of the investor/ trader.
- To formulate a strategy using basic analytical tools and techniques to maximise the profits of aninvestor.

**3.4 Research gap:**The research scope and opportunities in the field of derivatives has remained unexplored. This study aims to formulate a strategy based on inherent features of a derivative such as monthly trend and seasonality using Simple Average Method and Speculation. The study not only provides a strategy but also provides a range of choices rather than one single optimum investment where the investor is free to choose any investment strategy based on expectation of return and risk appetite.

#### 3.5 Scope:

FMCG		BANKING	INDEX
1.	1.Godrej	4.HDFC Bank	7.NIFTY 50
2.	2.Britannia	5.KOTAK Mahindra Bank	
1.	3.Dabur	6.ICICI Bank	

## 3.6 Sources of Data:

Our research study is purely based on historical data of the companies under consideration since it involves speculation and forecast of future performance. Therefore, the datacollection mainly relates to Secondary data collected from the following sources:

- NSE India website: https://www.nseindia.com/
- Economic Times: https://economictimes.indiatimes.com/
- Investopedia: https://www.investopedia.com/
- Management Study Guide: http://www.managementstudyguide.com/

**3.7 Data Analysis Tools:** The calculation and analysis of data has been done using Microsoft Excel ® which is made compatible for any kind of investor.

#### **3.8 Expected Outcomes:**

Estimating that the monthly trend continues and the seasonality effect of the stock prices sustain during the actual period of investment, this study tries to prove that using simple average method and timing risk, an informed investor can maximise profits in the options market. The following are some of the expected outcomes of this research study:

- Prove that monthly trends and seasonality in the stock prices of each company have a similar impact in the trends of the options being traded with their respective stocks as underlying.
- Prove that Timing risk and Stop Loss Strategies help in profit maximisation
- To obtain a strategy based on the above mentioned factors.

#### **3.9 Limitations and assumptions:**

- This study focuses majorly on the Technical aspects of an investment strategy and overlooks some of the Fundamental aspects.
- The investor has limited investment capacity which is assumed to be Rs. 3 Lakh for the purpose of this study.
- Limitation on the period for which the historical data has been collected which is assumed to be 3 years.
- The scope of this study is limited to 3 companies under FMCG, 3 companies under the banking sector and 1 Index.
- The seasonality effect of NIFTY 50 cannot be studied since there is no index undertaken as comparison in this study.
- Although this study undertakes to minimise Timely Risk and Financial Risk, there is no such thing as a risk-free investment.

## **IV. METHODOLOGY**

This research undertakes the study of an investor in the options market with an investment capacity of INR.3 Lakh who believes that the performance of an underlying will in turn affect the corresponding option in the same direction and magnitude. One-month period European options have been considered for investment. The investor has collected data regarding the performance of each underlying stock in the equities market. Furthermore, Simple Average Method has been applied to find out the average monthly performance of each stock/ index.

This investor undertakes to invest on the first Thursday of the month. He invests in the underlying based on the nearest strike price trading in the market. This nearest strike price has been derived by taking into consideration the stock price as on the first Wednesday of the month and applying the average return of the past 3 year's stock performance. This factor majorly contributes to the monthly trend analysis of the underlying stock/index. Since options always trade in lots, the standard and most readily available lot size for each underlying has been considered.

Once the investor has the required data, he invests in the stocks based on the liquidity levels of the options trading. Since he is a well-informed and educated investor, he has chosen to analyze the situation based on the following category with a predetermined mindset on the expected outcomes: 20% return on investment and a stop loss of 30%.

The investor then keeps track of the daily movement of the option prices keeping in mind the above requirements. Once the price of the price of the option price reaches the price as per expected return or the stop loss, whichever is earlier, he sells the options irrespective of the actual date of maturity of the option. He shall wait for a period of T+3 days (where T depicts the date of investment) after which the stop loss shall be applied. This is the major technique undertaken in this research to study the Timing Risk and Stop Loss Strategies.

Total Investment = Rs. 3,00,000\*90% = 2,70,000 (10% is kept aside as margin of safety)

## **V. DATA ANALYSIS AND INTERPRETATION**

Steps followed by the investor:

(1) The stock prices of individual stocks has been obtained from the website: https://www.nseindia.com/products/content/equities/eq\_security.htm

(2) The simple average of each month from the data collected above can be found from the following formula:

Average Return % = (Closing stock price – Opening stock price) × 100 (Opening Stock price)

- (3) From the data obtained in point (1), the Opening Stock Price on the first Wednesday of each month has been extracted.
- (4) We then find the Expected Stock Price by using the following formula

**Expected Stock Price** = Opening Stock Price + Average Return

- (5) From this point on, the investor starts looking into the options market. He obtains the data regarding Strike Prices of respective options from the following website: <u>https:// www.nseindia.com/ products/ content/ derivatives/ equities/historical\_fo.htm</u>
- (6) He then chooses a Strike Price to enter into the options contract based on the following 2 factors:
- a. The closest one to the Expected Strike Price
- b. The one with highest liquidity in the trading market
- (7) The final step before investing is to determine the number of lots to be bought based on the predetermined Lot Size for each varying underlying. This can be determined by using the following formula:

**No. of Lots**=Rs. 2,70,000 (Maximum capital) Price of the option × Lot size

This helps to maintain the Total investment within the maximum limit of INR. 2,70,000

 $\Box$  **Total Investment** = Price of the option  $\times$  Lot size  $\times$  No. of Lots

- (8) The investor then categorizes his priority into 3 levels, i.e., a standard expected return of 20% on the investment and 3 stop loss level 30%.
- (9) The final step of this study is to sell the option on the occurrence of any of the above events, i.e., the price of the options touches or exceeds the Expected return or touches or falls below the Stop loss. An important aspect of Time Value of money has been considered in this stage of our study where the investor waits for (T+3 days) before implementing the Stop Loss strategy which is called the Timing Risk.

Once the above procedure has been undertaken, we can determine the Profit/Loss earned for each month under each of the above three categories. This has to be repeated for each company under each sector to come to a conclusion on the effect of Monthly trends and Seasonality on the overall profitability of the investor.

Months	Godrej	Britannia	Dabur	HDFC	KOTAK	ICICI	NIFTY 50
April '17	-4.08%	4.11%	1.58%	3.63%	2.79%	1.61%	-0.78
May '17	2.49%	4.15%	5.61%	5.27%	6.58%	5.47%	4.85
June '17	9.98%	7.27%	3.49%	6.41%	0.94%	-1.24%	1.84
July '17	4.94%	9.24%	4.26%	6.99%	-13.99%	3.43%	2.33
August '17	2.94%	6.69%	0.65%	-2.65%	2.85%	0.48%	-0.33
September '17	-1.16%	4.24%	-3.39%	-0.25%	-2.35%	-4.08%	-0.63
October '17	0.31%	2.75%	2.03%	0.56%	7.07%	8.13%	1.67
November '17	-5.39%	-2.08%	1.23%	-2.39%	0.07%	0.50%	-1.19
December '17	3.44%	0.83%	-1.64%	0.35%	1.34%	-29.70%	-1.53
January '18	2.06%	0.59%	-0.07%	4.23%	2.36%	6.65%	2.01
February '18	2.54%	3.56%	-1.09%	-1.71%	-0.29%	4.60%	-0.88
March '18	2.32%	0.46%	1.87%	3.61%	4.02%	10.39%	2.6
April '18	-0.01%	5.62%	3.01%	-3.51%	2.84%	1.81%	-0.31%
May '18	4.35%	2.62%	3.45%	6.55%	6.25%	6.49%	3.26%
June '18	0.00%	3.85%	4.86%	3.29%	0.00%	-5.02%	-0.04%
July '18	6.23%	7.62%	2.89%	8.06%	-14.16%	3.52%	3.63%
August '18	-5.48%	6.65%	-3.44%	-3.33%	-1.86%	-3.27%	-2.21%
September '18	-5.16%	2.13%	-3.09%	1.62%	-0.62%	-4.22%	-1.02%

# Table 1: AVERAGE OF PAST 3 YEARS

The above table describes the 3 year average returns of each company.

(For April 2017 to December 2017 average of 2014,15 &16 has been considered and for January 2018 to September 2018 average of 2015,16 & 17 has been considered)

Table 2.1 Analysis of Godrej					
MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE	NEAREST STRIKE PRICE	PRICE OF THE OPTION	
April 2017	1697.8	1628.53	1650	20	
May 2017	1814.7	1859.89	1850	36	
June 2017	1861.75	2047.55	1960	10	
July 2017	981.6	1030.09	980	27.5	
August 2017	920.25	947.31	950	11	
September '17	900.2	889.76	900	17.6	
October 2017	972.45	975.46	980	25	
November '17	967.6	915.45	880	4.25	
December '17	1003.75	1038.28	1040	15	
January 2018	986.4	1006.72	1000	19.1	
February 2018	1011.7	1037.4	1060	8.6	
March 2018	1090.7	1116	1120	22.05	
April 2018	1085.2	1085.09	1080	24	
May 2018	1119.15	1167.83	1180	21	
June 2018	1145.8	1145.8	1160	29	
July 2018	1263.8	1342.53	1340	4.6	
August 2018	1319.6	1247.29	1240	7.7	
September '18	1347.05	1277.54	1260	10	

## \*LOT SIZE - 800

## Table2.2 Analysis of Britannia

Tuble 12 Analysis of Diffunnia					
MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE	NEAREST STRIKE PRICE	PRICE OF THE OPTION	
April 2017	3375.90	3514.65	3400	65	
May 2017	3580.50	3729.09	3600	90	
June 2017	3643.60	3908.49	3700	56.95	
July 2017	3733.45	4078.42	4000	15	
August 2017	3864.10	4122.61	4100	21.05	
September '17	4247.85	4427.96	4500	28	
October 2017	4341.85	4461.25	4400	94.1	
November '17	4697.25	4599.55	4600	118	
December '17	4760.45	4799.96	4800	120	
January 2018	4680.95	4708.57	4700	113	
February 2018	4550.45	4712.45	4700	50	
March 2018	4884.70	4907.17	5000	39	
April 2018	5024.40	5306.77	5200	40	
May 2018	5425.05	5567.19	5600	74.85	

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June 2018	5876.95	6103.21	6100	67
July 2018	6299.75	6779.79	6600	41.6
August 2018	6489.85	6921.43	7000	38
September '18	6,268.00	6401.5	6400	100

# \*LOT SIZE - 200

Table 2.3 Analysis of Dabur	Tabl	e 2.3	Analysis	s of Dabur
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MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE	NEAREST STRIKE PRICE	PRICE OF THE OPTION
April 2017	280.7	285.14	285	5
May 2017	284	299.93	295	1
June 2017	283.5	293.39	290	3.5
July 2017	292.8	305.27	305	3
August 2017	302	303.96	300	8.35
September '17	313.4	302.78	300	1.95
October 2017	312.2	318.54	315	9
November '17	338.9	343.07	340	13.75
December '17	344.8	339.15	335	3.2
January 2018	350	349.76	340	2
February 2018	342.15	338.42	330	2.75
March 2018	321.2	327.21	325	6
April 2018	335.5	345.6	350	2.8
May 2018	371.8	384.63	385	4.8
June 2018	378.6	397	400	3.25
July 2018	379.75	390.72	395	3.5
August 2018	432.25	417.38	415	5.5
September '18	456.9	442.78	440	5.6

\*LOT SIZE – 2500

Table 2.4 Analysis of HDFC BANK

MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE.	NEAREST STRIKE PRICE	PRICE OF THE OPTION
April 2017	1,432.35	1484.35	1480	7.00
May 2017	1,544.30	1625.68	1620	3.00
June 2017	1,640.80	1745.98	1740	1.55
July 2017	1,648.75	1764.00	1760	2.65
August 2017	1,791.65	1744.17	1740	13.80
September '17	1,759.90	1755.50	1740	16.20
October 2017	1,797.00	1807.06	1800	25.20
November '17	1,821.20	1777.67	1780	12.75
December '17	1,803.30	1809.61	1800	31.60
January 2018	1,852.65	1931.02	1940	7.05
February 2018	1,872.80	1840.78	1840	24.15
March 2018	1,832.60	1898.76	1880	14.60
April 2018	1,883.25	1817.15	1820	2.30
May 2018	1,969.50	2098.50	2100	4.55
June 2018	2,057.35	2125.04	2120	15.20
July 2018	2,103.55	2273.10	2260	3.75
August 2018	2,158.70	2086.82	2080	12.00
September '18	2,053.80	2087.07	2080	20.10

\*LOT SIZE - 500

# Table 2.5 Analysis of KOTAK BANK

MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE	NEAREST STRIKE PRICE	PRICE OF THE OPTION
April 2017	889.85	914.68	910	13.00
May 2017	916.95	977.29	980	2.50
June 2017	968.65	977.76	980	13.05
July 2017	959.85	825.57	880	#
August 2017	1010.90	1039.71	1040	10.95
September '17	996.15	972.74	970	7.10
October 2017	1029.45	1102.23	1100	2.40
November '17	1024.35	1025.07	1020	30.65
December '17	999.65	1013.05	1000	21.50
January 2018	1000.10	1023.70	1020	11.85

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February 2018	1036.30	1033.29	1040	22.35
March 2018	1085.10	1128.72	1120	10.55
April 2018	1,108.90	1140.39	1140	8.9
May 2018	1,232.00	1309.00	1300	12.3
June 2018	1,307.00	1307.00	1300	13.25
July 2018	1,355.10	1163.21	1240	#
August 2018	1,304.85	1280.57	1280	15.05
September '18	1,257.00	1249.20	1240	23.05

\*LOT SIZE - 800

MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE.	NEAREST STRIKE PRICE	PRICE OF THE OPTION
April 2017	286.50	286.55	290	5.50
May 2017	275.90	290.99	290	8.15
June 2017	321.05	317.07	315	4.50
July 2017	290.00	299.95	300	4.35
August 2017	302.20	303.65	305	6.75
September '17	294.90	282.87	280	1.55
October 2017	279.25	301.95	300	0.95
November '17	303.00	304.52	305	14.75
December '17	303.80	213.57	#	#
January 2018	312.50	333.28	335	1.55
February 2018	330.70	345.91	345	4.05
March 2018	295.05	325.71	320	1.50
April 2018	267.25	272.09	270	10.00
May 2018	283.65	302.06	300	4.35
June 2018	285.7	271.36	270	2.05
July 2018	274.2	283.85	280	4.7
August 2018	302.6	292.70	290	7.2
September '18	343.6	329.10	320	4.9

\*LOT SIZE -2750

\* # - NO INVESTMENT

Table 2.7 Analysis of NIFTY 50

MONTHS	SPOT PRICE ON WEDNESDAY	EXPECTED PRICE	NEAREST STRIKE PRICE	PRICE OF THE OPTION
April 2017	9264.4	9192.14	9150	60.25
May 2017	9344.7	9797.92	9800	1.05
June 2017	9663.95	9841.77	9850	24.65
July 2017	9619.75	9843.89	9850	17.1
August 2017	10136.3	10102.85	10100	123
September '17	9899.25	9836.88	9750	45
October 2017	9884.35	10049.42	10050	44.1
November '17	10390.35	10266.70	10250	64.45
December '17	10088.8	9934.44	9950	94.95
January 2018	10482.65	10693.35	10700	35.7
February 2018	10607.2	10513.86	10500	167.3
March 2018	10232.95	10499.01	10500	34.95
April 2018	10274.6	10242.74	10200	119.9
May 2018	10783.85	11135.45	11100	16.35
June 2018	10603.45	10599.25	10550	63.05
July 2018	10715	11103.95	11100	13.5
August 2018	11359.8	11108.74	11100	62.1
September '18	11514.85	11397.39	11450	100

#### \*LOT SIZE - 75

# NEAREST STRIKE PRICE IS BASED ON LIQUIDITY



# VI. FINDINGS AND SUGGESTIONS

**Godrej Consumer Products: :** This has shown an overall profitability of 22.99%, the highest level of profit being a striking 263.64% in the month of August 2017 and the highest loss touching down to the level of - 81.25% during September 2017.

# 2. Britannia



**Britannia:** This has shown an overall profitability of 18%, the highest level of profit being 126% in the month of April 2018 and the highest loss touching down to the level of -67% during September 2018.

#### 3. DABUR



**Dabur:** This has shown an overall profitability of 6.13%, the highest level of profit being 60% in the month of March 2018 and the highest loss touching down to the level of -60% during August 2018.

#### 4. HDFC BANK

MONTHS	Year 2017	Year 2018	
January		19.9%	8
February		20.1%	on Investment (%)
March		19.9%	le l
April	20.0%	106.5%	st.
May	-30.0%	19.8%	Ž
June	19.4%	-48.7%	1
July	20.8%	20.0%	
August	20.3%	20.0%	Return
September	19.8%	-64.2%	l de l
October	19.8%		
November	-29.8%		
December	20.1%		



 Table 3.4 Returns of HDFC Bank

**HDFC Bank:** This has shown an overall profitability of 10.75%, the highest level of profit being 106% in the month of April 2018 and the highest loss touching down to the level of -64.18% during September 2018

#### 5. KOTAK MAHINDRA BANK Year 2017 | Year 2018 MONTHS 100.00% January 26.58% Seturn on Investment [%] 30 3705 February 50.00% March 21.80% -61.15% 66.29% April 0.00% 20.00% May 43 00% March June 36.40% 39.25% -50.00% Febr July 0.00% 0.00% -52 5196 74.09% August -100.00% -85.92% 24.08% September Months October 20.83% -30.02% November Year 2017 --Year 2018 December 14 65%

Table 3.5 Returns of Kotak Mahindra Bank

**Kotak Mahindra Bank**: This has shown an overall profitability of 1.99%, the highest level of profit being 74.09% in the month of April 2018 and the highest loss touching down to the level of -85.92% during September 2018.

#### 6. ICICI BANK



**ICICI Bank:** This has shown an overall profitability of 3.48%, the highest level of profit being 90.18% in the month of May 2017 and the highest loss touching down to the level of -85.19% during February 2018.

#### 7. NIFTY 50



**NIFTY 50:** This has shown an overall profitability of 18%, the highest level of profit being 257% in the month of May 2017 and the highest loss touching down to the level of -64% during September 2017.

## VII. CONCLUSION

Generally in the options market, the trader loses on the profit by waiting for the date of maturity of the option. This research project has been undertaken to overcome such drawbacks of trading in options for a small trader with a limited amount of investment. We have suggested a strategy by using method of simple average calculation to make investments and maximise profits,

This study has concluded that the following factors play a major role in the decision making process of a trader in the options market:

- Intrinsic value: As we are investing in out of the money market, Intrinsic Value risk is not involved since Intrinsic Value is zero.
- Timing Risk: After the date of investment, we wait for 3 days to achieve our profit margin (i.e., timing risk is taken without considering financial value risk)
- Volatility: If profit margin wasn't achieved within Time Risk, we request the investor to keep a financial risk circuit break (Stop Loss) which has been assumed to be 30% or it can be more based on the risk appetite of the investor.

FMCG SECTOR			
MONTH	GODREJ	BRITANNIA	DABUR
April	-4.08%	4.11%	1.58%
May	2.49%	4.15%	5.61%
June	9.98%	7.27%	3.49%
July	4.94%	9.24%	4.26%
August	2.94%	6.69%	0.65%
September	-1.16%	4.24%	-3.39%
March	2.32%	0.46%	1.87%
April	-0.01%	5.62%	3.01%
May	4.35%	2.62%	3.45%
June	0.00%	3.85%	4.86%
July	6.23%	7.62%	2.89%
September	-5.16%	2.13%	-3.09%

Months	ICICI	HDFC	КОТАК
April	0.02%	3.63%	2.79%
May	5.47%	5.27%	6.58%
July	3.43%	6.99%	-13.99%
October	8.13%	0.56%	7.07%
January	6.65%	4.23%	2.36%
March	10.39%	3.61%	4.02%
May	6.49%	6.55%	6.25%
July	3.52%	8.06%	-14.16%
August	-3.27%	-3.33%	-1.86%

The above table represents the selection of months which exhibit monthly trend and seasonality under each sector which we would suggest as an important finding from our study.

Through this study, we have understood that most of the profit was achieved within time risk range, (i.e. T + 3 days where T is the date of investment). If failed to achieve within these 3 days, it was observed that in most of the cases the investor incurred losses. Thus, we conclude that Timing Risk plays a vital role in the profit margin in options trading. In other words, an investor who takes more Timing Risk has more chances of achieving profit keeping in mind that investment value risk also increases simultaneously.

## VIII. SUGGESTIONS

- This study focuses majorly on the technical aspects of the stock performance keeping all fundamental aspects constant which is not the case in the real market. Hence, we would suggest a deeper study based both on the fundamental and technical analysis on options trading.
- Since our study is undertaken for 2 sectors and 1 index, further research scope in this area could be a study on the Diversification of Portfolio using options trading.

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