

A STUDY ON FINANCIAL DERIVATIVES WITH REFERENCE TO MARUTI SUZUKI INDIA LTD. OF GURGAON (HARYANA)

***Ms. Pushpa Rani, **Dr.Parveen Chauhan**

*Research Scholar, **Associate Professor, Faculty of Management and Commerce,
Jagannath University, Bahadurgarh (Haryana).

Abstract:

Financial sector reforms refer to the reforms in the financial (like banking sector, stock exchange, govt bonds.) and capital market. Financial reforms have been undertaken in all the three segments of the financial system, namely banking, primary and secondary market. In the beginning the growth and innovation of derivatives in India is slow but from June 2000 market has instantaneous growth. To understand the financial instruments for the derivatives markets mainly two types namely future and option. "A derivative is a financial security with a value that is reliant upon or derived from, an underlying asset or group of assets—a benchmark. The derivative itself is a contract between two or more parties, and the derivative derives its price from fluctuations in the underlying asset. The most common underlying assets for derivatives are stocks, govt securities, commodities, currencies, interest rates, exchange rate and market indexes. These assets are commonly purchased through brokerages. These instruments and their functioning understand by trading with these instruments. The present study is based on to examine the financial derivatives with reference to Maruti Suzuki India Ltd.

Keywords: Derivatives, Option, Future , underlying asset , market index.

INTRODUCTION

Finance is the primary need for its survival of any business organization. Just as circulation of blood is so is finance very essential to the business organization for smooth running of the business. Financial management involves Managerial activities concerned with the raising of funds, allocation of funds and optimum utilization of funds for the business purpose. The Finance Function does with procurement of money taking into consideration of today as well as future financial requirements of the business to meet capital budgeting decisions and working capital management.

In finance, a derivative is an agreement based on an underlying asset. Instead of exchanging the actual asset, agreements are made to exchange cash or consideration other than cash for the underlying asset within a specified timeframe. As there is any change in the value of underlying asset, so does the value of the derivative also change.

Futures

Futures are relatively newer instruments as compared to Forwards, and classified as derivatives. Futures markets were designed to solve the problems that exist in forward markets. Futures contract is a modified version of a Forward contract but is fundamentally same as a forward contract, i.e., promising settlement on expiry having fixed the price today. A futures contract is an agreement between two parties to buy or sell an asset or securities as a specified time period in the future at a given price. But unlike forward contract, the futures contracts are purpose in settlement and a standard timing of such settlement. A futures contract should be offset prior to maturity standardized and exchange traded. To facilitate liquidity in the futures contract, the exchange specifies certain standard underlying instrument, a standard quantity and quality of the underlying instrument that can be delivered, (or which can be used for reference by entering into an equal and opposite transaction). More than 90% of futures transactions are offset through this process.

The standardized items in a futures contract are:

- Quantity of the underlying asset
- Quality of the underlying asset
- The time of settlement
- Price scenario of the underlying asset
- Location of settlement

Option

An option is a unique instrument that confers a right without an obligation to buy or sell another asset, called the underlying asset. Options are fundamentally separate derivative instrument from forward and futures contracts. An option gives the holder of the option the right to do something. The holder does not have to exercise this right. In contrast, in a forward or futures contract, the two parties have committed themselves to doing something. Whereas it costs nothing (except margin requirement) to enter into a futures contracts, the purchase of an option requires as up-front payment. Option is a type of contract between two persons where one grants the other the right to buy a specific asset at a specific price within a specific time period. Alternatively the contract gives the other person the right to sell a specific asset at a specific price within a specific time period, in order to have this right. The option buyer has to pay the seller of the option premium. The assets on which option can be derived are stocks, commodities, indexes etc. If the underlying asset is the financial asset, then the option are financial option like stock options, currency options, index options etc., and if options like commodity option.

REVIEW OF LITERATURE

The existing behavioral studies in the area of finance are very few and very little information is available about investor perceptions, preferences, attitudes and behavior. Few researchers in the past have tried to study the investor behavior and their preference towards financial markets and very little of them are related to derivatives market. The studies which were found relevant and referred to during the present study are summarized in the following paragraphs. According to Greenspan (1997) “By far the most significant event in finance during the past decades has been the extraordinary development and expansion of financial derivatives...”

Avadhani (2000) stated that a derivative, an innovative financial instrument, emerged to protect against the risks generated in the past, as the history of financial markets is replete with crises. Events like the collapse of the fixed exchange rate system in 1971, the Black Monday of October 1987, the steep fall in the Nikkei in 1989, the US bond debacle of 1994, occurred because of very high degree of volatility of financial markets and their unpredictability. Such disasters have become more frequent with increased global integration of markets.

Marlowe (2000) argues that the emergence of the derivative market products most notably forwards, futures and options can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. It is generally stated that regulation has an important and critical role to ensure the efficient and smooth functioning of the markets.

Kumar R. & Chandra A. (2000) critically examined arbitrage opportunities in derivative market. They concluded that individuals often invest in securities based on approximate rule of thumb, not strictly in tune with market conditions. Their emotions drive their trading behavior, which in turn drives asset (stock) prices. Investors fall prey to their own mistakes and sometimes other's mistakes, referred to as herd behaviour. Markets are efficient, increasingly proving a theoretical concept as in practice they hardly move efficiently. The purely rational approach is being subsumed by a broader approach based upon the trading sentiments of investors.

Bose Suchismita (2006), in their study “The Indian Derivatives Market Revisited” examined derivative as a risk management tool. It was found that Derivatives products provide certain important economic benefits such as risk management or redistribution of risk away from risk-averse investors towards those more willing and able to bear risk. Derivatives also help price discovery, i.e. the process of determining

the price level for any asset based on supply and demand. These functions of derivatives help in efficient capital allocation in the economy; at the same time their misuse also poses a threat to the stability of the financial sector and the overall economy.

Lovric M. et al., (2008), presented a description model of individual investor behaviour in which investment decisions are seen as an iterative process of interactions between the investor and the investment environment. The investment process was influenced by a number of interdependent variables. They suggested that this conceptual model can be used to build stylized representations of individual investors and further studied using the paradigm of agent-based artificial financial markets.

Hvidkjaer S (2008) analysed the relationship between retail investor trading behavior and the cross section of future stock returns. The result suggests that stocks favored by retail investors subsequently experience prolonged underperformance relative to stock out of favor with them. This results link the systematic component of retail investor behavior to future returns, i.e., informed investors might begin selling stocks that they believe to be overvalued. The overvaluation that these investors perceived could be driven by changes in firms fundamental.

Talati and Sanghvi (2010) made an attempt to identify the awareness and perception of the investors' towards hedge funds as an investment avenue with special reference to Gujarat state. It was found that the awareness level regarding hedge funds was very less in the area covered for study. The investors were not aware of the advantage that they could get by investing in hedge funds nor were they aware of the basic functioning of hedge funds. Investors in Gujarat preferred to invest in government securities and fixed deposits of nationalize banks where they had a complete safety of their funds, though they got less returns.

Mark fenton, Emma Soane, Nigel Nicolson and Paul Williame(2011) document a quantitative investigation to find difference between high and low performing traders and studied the role of intuition in the decision making process. The emotional regulation strategies adopted by experts reveals that high performing traders are qualitatively different from low performing traders as former are inclined to cope up with negative feelings and formulate effective strategies to regulate their emotions.

Varadharajan.P and Vikkraman.P (2011) in their study has stated that an investor decides on an investment after getting opinion from family, friends and colleagues, Broker's recommendation and also other professional advice. The investor also takes into consideration the market situations like financial

results of the companies, bonus issue, price earnings ratio and the reputation of the company.

Shanmnga Sundaram V (2011) examined the impact of behavioral dimensions of investors in Capital market and found that investor decisions are influenced .

Sahoo (2012) opines “Derivatives products initially emerged, as hedging devices against fluctuation in commodity prices and the commodity-linked derivatives remained the sole form of such products for many years”. According to him the legal framework for derivatives trading is a critical part of overall regulatory framework of derivative markets. The purpose of regulation is to encourage the efficiency and competition rather than impeding it.

Kousalya P R and Gurusamy P (2012) in their research has concluded that investors make self- decision regarding their investment. Investments are made for a period of less than three years and there is a significant relationship between age and awareness.

Manasa Vipparthi and Ashwin Margam (2012) revealed that the investors’ perception is dependent on the demographic profile and assesses that the investors age, marital status and occupation has direct impact on the investor’s choice of investment. The study further revealed that female segment are not fully tapped and even there is low target on higher income people. It reveals that Liquidity, Flexibility, Tax savings, Service Quality and Transparency are the factors which have a higher impact on perception of investors.

Arvid O.I. Hoffmann, Thomas Post and Joost M.E. Pennings (2012) in their research found out that investor perception during 2008-09 financial crisis fluctuate significantly with risk tolerance and risk perceptions being less volatile than return expectations. During the worst months of the crisis investors’ return expectations and risk tolerance decrease while risk perception increase. Towards the end of the crisis, investor perceptions recover. They also documented substantial swings in trading and risk-taking behaviour that are driven by changes in investors’ perceptions. Overall individual investors continued to trade actively and did not de-risk their investment portfolios during the crisis.

Gagan Kukreja(2012) has found in his research that age, educational qualification, tax advantages, liquidity and investment attributes are mediating factor for investors’ perception. Investment influences and investment benefits are having high relevance.

Neel Kamal Purohit (2013) in his research has found out that income has significant impact on frequency

of trading in stock market, selection of mode of trading and selection of market segments. Age and income has significant impact on taking exposure.

Supriya (2014) reviewed derivative as a tool for managing risk which comes out of uncertainty and makes it difficult for businesses to estimate their future production cost and revenues. The NSE figures reveal that in equity derivative almost 90% of activity is due to stock futures and index futures, whereas trading in options is still limited to few stocks, partly because they are settled in cash and not the underlying stock. Further she found NSE has programmes to inform and educate brokers, dealers, traders and market personnel.

Dr. Y. Nagaraju (2014) studied investors' perception towards derivative instruments and markets. The study shows that even though most people look at derivatives with fear, they should understand the fact that derivatives help in shifting the risk to the other party. There are many myths that surround derivative market. All these can be done away with proper system in place. Derivative instruments and derivative markets are not so popular among individual investors. Only educated investors with the help of friends and brokers are investing in this market. The reasons for not investing in this market are lack of knowledge and very complex nature of instruments. Some people have a wrong perception about derivatives. The study suggests that measures should be taken to make sure that the investors get a right picture of the instruments and their risk factors.

Bhatt Babaraju K and Chauhan Apurva A (2014) studied investor's perception towards derivatives as an investment avenue and found that most of the investors invest in derivative market on the basis of their own awareness, guidance from financial advisor and broker. They found that there is a significant positive correlation between age of the respondents and their decision to invest in derivatives and a negative correlation between annual income of the respondents with their decision to invest in derivatives. Hedging fund, risk control, knowledge regarding financial product and high volatility in the stock market were some of the important factors influencing the investor's decision. A review of all these studies dealing with investor's behaviour and perception, carried out over a span of 14 years, has helped to conceive the research framework of the present study. The researches so far has analysed various influencers and motivators of investor behaviour such as age, education, income, experience, risk perception, brokers advise etc. The guidance of financial advisor and broker is found to be a prominent factor influencing investor's intention to trade in derivatives, thus the survey in the present study has been carried out among

the brokers and sub-brokers of NSE representing the investor's intention.

The studies discussing investor perception about shares or mutual funds were not found very relevant as the derivative trading is considered more complex and risky by the investor and he is more cautious while investing in derivatives. Present study will be helpful for the investors while investing in derivatives.

NEED & SCOPE OF THE STUDY

Derivatives help to reduce the risk (or) diversified the risk. It also helps to the investors to earn more returns with less risk. Therefore the present study has been undertaken to understand the derivatives market and how it is beneficial for investors in investment decisions with special reference to Maruti Suzuki India Ltd.

The Study is limited to "Derivatives" with special reference to Futures and Options of Maruti Suzuki India Ltd. in the Indian context and the Inter- Connected Stock Exchange has been taken as a representative sample for the study. The study is limited to financial derivatives with special reference to futures options in the India bulls Limited has been taken as representative sample for the study.

OBJECTIVES OF THE STUDY

1. To evaluate the operations of futures and options with reference to Maruti Suzuki India Ltd.
2. To analysis the profit/loss position of futures buyer and also the option writer and option holder
3. To recommend measures about futures and options
4. To study the concept of the financial derivatives such as futures & options.

DATABASE

The primary data is collected directly with the concerned professional trade members and online transaction on the day from NSE India. The secondary data is the data which is gathered from books, records, Journals, Magazines, Reports and Newspapers. This analysis is based on sample data taken from Maruti Suzuki India Ltd.

DATA ANALYSIS & INTERPRETATION

The Objective of this research work is to analysis the profit/loss position of futures and options. This Study is based on sample data taken from Maruti Suzuki India Ltd. The lot size of Maruti Suzuki India Ltd is **125**, the time period in which this study is conducted from 10th Oct., 2019 to 11th Nov., 2019.

Table 1. Spot and Future Prices from 10th Oct.2019 to 18th Oct.2019

Maruti Suzuki India Ltd		
DATE	PRICE	
	SPOT	FUTURE
10-Oct-19	6700	6727.45
11- Oct-19	6626.3	6720.15
14- Oct-19	6697.95	6752
15-Oct-19	6811	6863.8
16-Oct-19	7003.45	7044
17-Oct-19	6977	7011.3
18-Oct-19	7081.3	7109.35

Interpretation

The above table shows that opening prices of Maruti Suzuki India ltd. During this week spot market opened its price with Rs. 6700 and it increased to Rs.7003.45 and finally it closed at 7081.3The future prices of Maruti Suzuki India Ltd. Opened price Rs.6727.45 and it increased to Rs.7004 and finally closed at Rs.7109.35.

During this week Maruti Suzuki India ltd showed a positive trend.

Table2: Spot and Future Prices from 22nd Oct.2019 to 27th Oct.2019

Maruti Suzuki India Ltd		
DATE	PRICE	
	SPOT	FUTURE
22-Oct-19	7333	7355.1
23- Oct-19	7201.05	7249.2
24- Oct-19	7460	7490
25-Oct-19	7396.5	7438.75
27-Oct-19	7477	7502.7

Interpretation:

The above table shows that opening price of Maruti Suzuki India Ltd. during the week (from 22th Oct to 27th Oct). The spot price opened at Rs. 7333 and it's increased to Rs. 7460 and closed at Rs. 7477. The future market of Maruti Suzuki India Ltd. opened at Rs.7355.1 and its increased to Rs. 7490 and finally closed at Rs.7502.7

During this week Maruti Suzuki India ltd. showed positive trend.

Table3 Spot and Future Prices from 29Oct.2019 to 01Nov.2019

Maruti Suzuki India Ltd		
DATE	PRICE	
	SPOT	FUTURE
29-Oct-19	7416	7452.55
30- Oct-19	7744	7768.2
31-Oct-19	7612.9	7641.1
01-Nov-19	7599.95	7595

Interpretation:

The above table shows opening price of Maruti Suzuki India Ltd. during the week (from 29th Oct to 1st Nov.). The spot price opened at Rs. 7416 and it increased to 7744 and finally closed 7599.95. The future market has a premium and it opened at Rs. 7452.55 and increased to Rs. 7641 and finally closed at Rs. 7595.

During this week Maruti Suzuki India Ltd. showed again a bullish trend.

Table4 Spot and Future Prices from 04th Nov.2019 to 11th Nov.2019

Maruti Suzuki India Ltd		
DATE	PRICE	
	SPOT	FUTURE
04-Nov-19	7550	7591

05-Nov-19	7429.95	7432.6
06-Nov-19	7395	7420
07-Nov-19	7357	7356.85
08-Nov-19	7286.45	7307.1

Interpretation:

The above table shows opening price of Maruti Suzuki India ltd. During this week (from 10th Oct 2019 to 18 Oct 2019) the spot price opened at Rs. 7550 and it decreased to Rs.7395 and finally it closed at 7106.

The future price opened at Rs.7591 and it decreased to Rs.7420 and finally closed at Rs.7205

During this week Maruti Suzuki India ltd showed a Bearish trend

Table no.6 Call and Put strike price during 10thOct 2019 to 11th Nov2019.

Maruti Suzuki India Ltd (option) call option and put option prices from 10 Oct. 2019 to 18 Oct. 2019						
Spot Price(1)	Call Option(2)			Put Option (3)		
	7000	7100	7200	7000	6900	6800
6700	384.3	349.65	317.5	723.35	661.45	602.4
6626.3	408.65	371.55	337.15	655.5	596.25	539.85
6697.95	440.6	400.1	362.5	568.75	513.05	460.45
6811	340	471.25	428.7	481.3	430.85	383.55
7003.45	325.35	444.5	402.35	311	415.55	368.25
6977	404.6	512.65	264.4	254	346.1	166.35
7081.3	480	431.7	357.2	170.1	139.3	115.05

Maruti Suzuki India Ltd (option) call option and put option prices from 22Oct.2019 to 27Oct.2019

Spot Price	Call Option(2)			Put Option(3)		
	7000	7100	7200	7000	6900	6800
7333	598.95	394.95	352	165.75	139.15	111.65
7201.05	386.9	653.35	473.15	136.1	118.65	89.75
7460	664.4	603.2	421	129.7	104.5	81.95
7396.5	705.3	640.6	475.9	104.9	80.8	64.45
7477	648.7	584.75	415	110.9	92.1	82.2

Maruti Suzuki India Ltd (option) call option and put option prices from 29Oct.2019 to 01Nov.,2019

Spot Price (1)	Call Option(2)			Put Option(3)		
	7000	7100	7200	7000	6900	6800
7416	773.25	805.4	638	72.45	60.6	44
7744	663	674.35	515.75	70	58.8	48.35
7612.9	643	659.7	485.25	72.35	55	46.8
7599.95	682.65	689.4	528.9	58.75	46.5	37.4

Maruti Suzuki India Ltd (option) call option and put option prices from 04 Nov.2019 to 11Nov.2019

Spot Price(1)	Call Option(2)			Put Option(3)		
	7000	7100	7200	7000	6900	6800
7550	529.25	531.65	380.3	80.05	62.75	49.7

7429.95	492.65	492.1	357.4	81	61.65	46.75
7395	434.2	427.1	298.9	89.65	68	50.25
7357	413.15	396.45	274.05	92.2	68.5	52.05
7286.45	336.05	277.65	219.65	115.85	86.45	65.7
7160	280.55	226.5	172.95	120.7	88.8	64.6

Interpretation:

The table no.6 shows the spot prices and call and put strike prices from 10th Oct 2019 to 11th Nov.2019.

The above table shows the prices of Maruti Suzuki options (Call & Put) of different strike prices. In first 3rd weeks Maruti Spot prices going up so that call options were increasing and Put option were decreasing. And in this case buying call options were profitable trade in bullish trend. In 4th week Maruti Suzuki prices were decreasing so call options were decreasing and put options were increasing.



Source: NSE, MARUTI

The above graph shows the position for the investors to buy or sell their position in future and option contract. The graph shows the position during time period 10th Oct to Nov 2019.

Conclusion

The basic difference between option and future market is that the option gives the holder's right to buy or sell the underlying asset, at a specified price or a specified date but he is not obliged to do so. Option and future both are the financial derivatives. The objective of the study is to evaluate the operation of future and option and analysis the profit and loss position of buyers and sellers. From the above data analysis it is concluded that the Maruti Suzuki India Ltd. Stock performance in spot or future market is positive over a period of time from 10th Oct 2019 to 11th Nov. 2019. It shows a bullish trend. And the graph indicates the position when the investors buy or sell their position. In the graph green candle indicates buy future and buy call option and red candle indicates the sell future and buy put option. So buying call options were profitable trade in bullish trend and put option in bearish trend.

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