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Management of Risk Though Hedging

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ABSTRACT

The main objective of the present article is how to reduce financial risk through derivatives. Options are alternatives for mitigating the financial risk in the market. Especially, the startups can make use of these options as one of the good means for mitigating the risk as per as the buying and selling of goods and services is concerned. If an entrepreneur could be able to analyze and predict efficiently the market fluctuations of stock, commodities, indexes, interest rates, and foreign exchange rates etc. than the options are an effective choice for risk reduction and profit making. While hedging the entrepreneurs should be well aware of certain basic things in selecting the underlying assets of the derivatives in the market. Few of such points are; underlying asset should be among top 200 in the market regarding its capitalization and trading volume. If the non- promoters holding is at least 30 percent than it would be good. The average trading volume should be in considerable amount. An investor can exercise his call option when the value of the underlying asset in the market exceeds the strike price and option premium amount at expiration period in future. In case, if it is put option it is suggested to an investor to exercise his option when the exercise price including option premium is greater than the value of the underlying asset in the market.

Keywords: Management of risk, Derivatives, Hedging, Options, Financial risk.

Future is uncertain and one cannot expect what happens tomorrow and in the days to come. As per as the management of risk is concerned in a business organization the entrepreneurs must be careful about expecting the risks relating to the financial decision that is likely to happen in future. Risks can be categorized in to two parts one is pure risk and speculative risk. The pure risk can be compensated through insurance. There would be either loss or no gain in the case of pure risk.So, pure risk can be compensated by taking an insurance policy. But a speculative risk describes the situations where there is possibility of happening neither loss nor gain for instance hedging through derivatives.

Derivates are a type of securities the value of which will be derived from the value of the underlying assets. The most comely suing derivates in are options, futures, forwards and swaps.Further a derivative is a contract between two or more parties. Its value will be decided based on the fluctuation in the value of an underlying asset. In the present article we will learn about options.

Options is kind of claim without any liability. It is a contingent claim which happens on the occurrence of certain conditions. More specifically, an option is a kind of contract between two parties which gives right to the buyer without any obligation to buy or sell an asset at an agreed price on or before specified period of time. There are three types of options. They are call option, put option and double option.

Call option is an option which gives the right to the option holder to buy an underlying asset such as commodities, stock shares, foreign exchange etc. at specified price called ‘exercise price’ or ‘strike price’ on or before specified time period. When the call option holder supposes to exercise then the writer comes under the obligation to sell the asset at specified price.

Put option is an option to sell an asset. It gives right to the put option holder to sell an underlying asset at a predetermined price on a specific time period. It means that the writer of a put option is under the obligation to buy the asset at the exercise price when the put option holder exercises his option.

There are three kinds of possibilities for exercising a call or put option. They are ‘In the Money’, Out of the Money’ and ‘At the Money’. Regarding the call option, when the asset price (AP) in the market is more than the exercise price (EP) then we will treat it as the call option is at ‘In the money’ position. And one can suggest that the call option holder can exercise his option. If a call option is not advantageous to the call option holder than it is called the call option is at ‘Out of the money’. This means the asset price (AP) of the call option in the market is less than the exercise price (EP).

Since that, it is clear that when the call option is at "in the money" situation the option should be exercised. If it is at "out of the money' situation the call option should not be exercise. In case, if the asset price and strike price of a call option is equal then it is said to "At the money" position. This means no gain no loss to the call option holder and it is treated a breakeven point.

Regarding the put option, when the asset price (AP) is lower than the strike price (SP) then the put option is said to ' In the money' position. And the put option holder is suggested to exercise his option. When the exercise price (EP) is lower than the asset price than the put option is at "out of the money" situation and the put option holder is suggested not to exercise his option. And when the exercise price and asset price is equal it is said to "at the money" position.

Pay off or value of the call option

The greater is the value of the underlying asset, the more is the value of the call option. This we can observe in the following chart. Table no.1.1 explains that the call buyer's potential pay-off is more when the value of the underlying assets is increased beyond the exercise price. When the value of the asset goes below the exercise price then the call buyer will not exercise his option. Why because his pay-off will be zero and the option is worth nothing. In the below chart we can observe that when the value of the underlying asset reaches to 1.4 the pay-off potential of the call option buyer is above 1.5 we can categorized the developments in to two categories one is above the exercise price(EP) and the other is below the exercise price. If the value of an underlying asset is above the exercise price (EP) it is said to "in the money" position. Where as, if the value of an asset is below the exercise price (EP) it is said that the call option is in the "out of money" situation which means that there would be no use. And the loss of the call option buyer is limited to his call premium only.

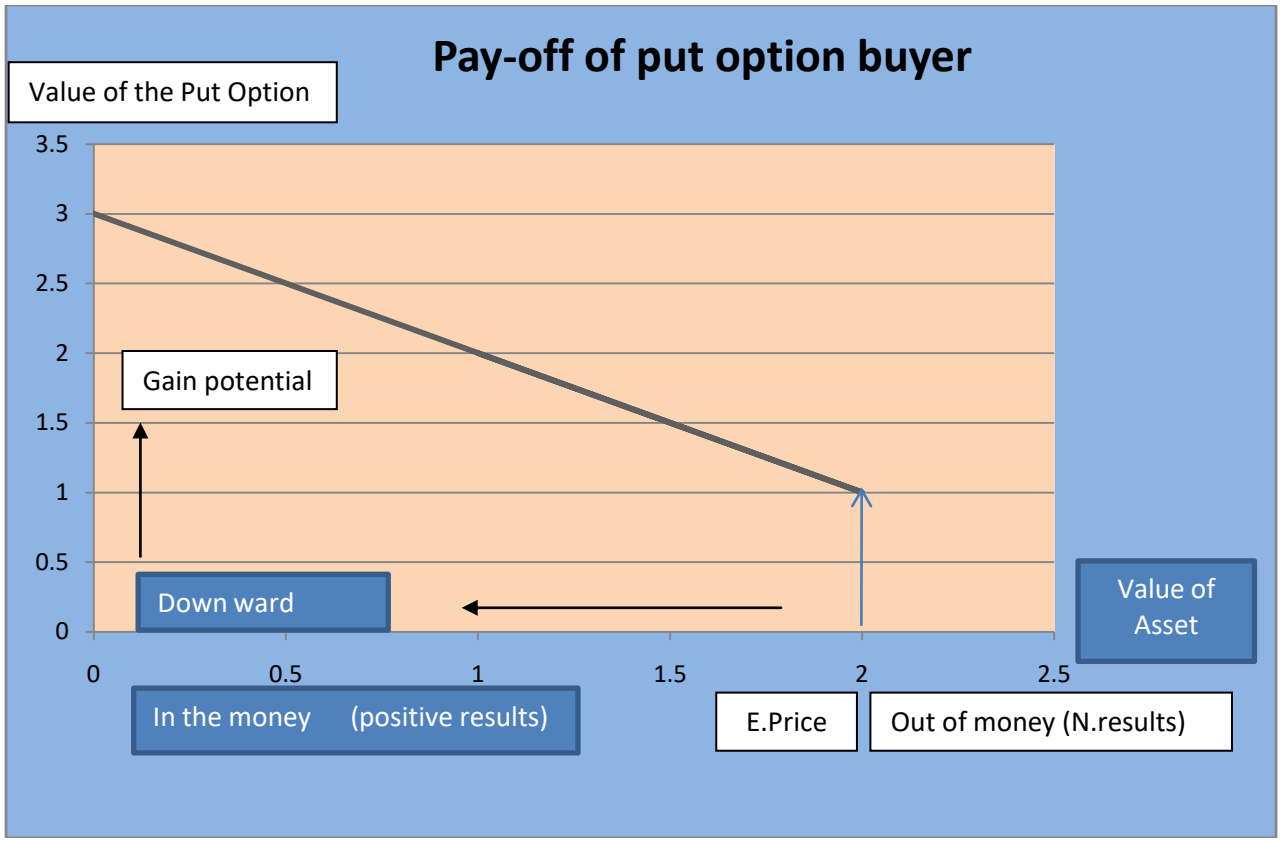
Chart no: 1.1: Relationship between value of the underlying asset and call option

Pay off of call option seller

The call option buyer's cost is the gain of the call option seller or writer. The call option writer does not lose anything if the value of the underlying asset falls down below the exercise price. In case, if the value of the underlying asset increases beyond the exercise price and call premium then the loss intensity of the losing good outcome of writer will be high.

Pay off of put option buyer

The value of the put option buyer depends on the value of the underlying asset. The put option buyer's gain is the loss of the put option seller. Instead of falling down if the value of the underlying asset increases then the loss potential of the put option buyer is limited to his premium. In the following chart no.1.2 we can observe that the exercise price of the put option is tow rupees. If the value of the underlying asset falls down to the quoted exercise price than the put option is said "In the money" position. In case, if the value of the underlying asset increases than the exercises price of put option, the put option holder cannot exercise his option why because the put option is in out of money position in the market. But the loss the will occur to the put option buyer is limited to his option premium only. This we can show clearly in the following chart.



Pay off of the put option seller or writer

The profit of the put option seller or writer is limited to the call premium only. And his loss potential depends on the value of the underlying asset in the market.

Put-call parity

Suppose, an investor is considering to buy a share (long position), buy a put (long position) and sell a call (short position). The exercise price of the put and call option is the same and both are European type of options and will expires after three months. Let us consider the results of this case. Incase share prices rises or falls, the value of the portfolio at expiration will be equal to the exercise price. Hence, there would be no loss or no gain, it is called risk free portfolio. Through the risk free rate of return the present value of this kind of portfolio can be calculated.

CONCLUSIONS

Options are alternatives for mitigating the financial risk in the market. Especially, the startups can make use of these options as one of the good means for mitigating the risk as per as the buying and selling of goods and services is concerned. If an entrepreneur could be able to analyze and predict the market fluctuations efficiently, than the options are an effective choice for risk reduction and profit making. While hedging the entrepreneurs should be well aware of certain basic things in selecting the underlying assets of the derivatives in the market. Few of such points are; underlying asset should be among top 200 in the market regarding its capitalization and trading volume. If the non- promoters holding is at least 30 percent than it would be good. The average trading volume should be in considerable amount. An investor can exercise his call option when the value of the underlying asset in the market exceeds the strike price and option premium amount at expiration period in future. In case, if it is put option it is suggested to an investor to exercise his option when the exercise price including option premium is greater than the value of the underlying asset in the market.

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