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Effective and Profitable Stock Trading Strategy

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Abstract
Investors and traders are always in search of good stock market trading strategies to maximize their profit. Technical analysis of stocks has been used by them to forecast stock price movements. Lagging and leading technical indicators are used as tools to gain advantage while making investment or trading decisions. Trading rules are used by them which are developed by studying historical market data to find trends. These market trends tend to appear when certain features (narrow range, DOJI, etc.) appear in the historical data. Unfortunately, these features often appear only in partial form,which makes trend analysis challenging. In this paper, we present an effective and profitable stock trading strategy which is not based on any type of prediction or forecasting of future movement of stock price. It is powerful strategy applicable in bullish as well as bearish market. Moreover, it has potential of more profit over simple buy and hold trading style. It has been observed that most of the times, stock trade in range bound regions which has also been exploited in this strategy.

Keywords
Technical Indicator, MACD Indicator, Daily Price Range, Volatility

I. Introduction
There are many stock trading strategies prevailing in the stock market to provide traders with the right signals (entry and exit price) at the right time. Accurate prediction of stock prices is a challenging task for traders and investors. The economic, social, political and psychological factors decide the stock price movement. The early Efficient Market Theory (EMT) claims that prices move in a random way and it is not possible to predict stock prices by any means [1]. Other researchers contradicted this claim and presented considerable evidence showing that stock prices are, to some extent, predictable. Forecasting or predicting stock prices may be done by following approaches: Fundamental analysis approach, technical analysis approach, time series forecasting [2]. Each approach has its own pros and cons. In this paper, we introduced a stock trading strategy which is independent of price prediction. There is no need to predict stock price for the entry and exit. This strategy is not to predict stock price rather a strategy of regular investment whenever stock price moves 1% in either direction (up or down). It means a trader has to buy a fixed quantity of stock each time when stock price moves 1% down from current price and has to sell when stock price moves 1% up. It is a strategy in which daily movement of stock price is taken into consideration. It is well known fact that stock price never stay at fixed price for long time and has tendency to move up and down daily. Stocks normally have 1% to 10% of daily price range. If a trader can use this daily volatility, he can earn a lot of money by regular buying /selling at 1% movement instead of waiting for long price movement.

II. Concept of Technical Analysis
The idea behind technical analysis is that stock prices move in trends dictated by the constantly changing attitudes of investors in response to different forces. Future stock movements are predicted by using price, volume and observing trends that are dominating the market. Technical analysis rests on the assumption that history re peats itself and that future market direction can be determined by examining past prices [1]. The groups of professionals who subscribe to this method are the technical analysts or the chartists, as they are more commonly known. To them all information about earnings, dividends and future performance of the company is already reflected in the stock's price history. Therefore the historical price chart is all a chartist needs to make predictions of future stock price movements.This method of predicting the market is highly criticized because it is highly subjective. Two technical analysts studying the same chart may interpret them differently, thereby arriving at completely different trading strategies. Also a chartist may only occasionally be successful if trends perpetuate. Technical analysis is also considered to be controversial as it contradicts the Efficient Market Hypothesis. Despite such criticism and controversy, the method of technical analysis is used by approximately 90% of the major stock traders [3].

III. Concept of Technical Indicator
A technical indicator is a series of data points that are derived by applying a formula to the price data of the stock. Technical indicators provide unique perspective on the strength and direction of the price action of the stock. Indicators serve three main functions: to alert, to confirm and to predict. There are hundreds of indicators in use today. We are focusing on SMA and MACD indicator in this paper.

IV. Simple Moving Averages (SMA)
It is most popular and easy to use tool available to the technical analyst. They smooth a data series and make it easier to spot trends, especially helpful in volatile markets. Moving averages are also used by many other technical indicators. A simple moving average is formed by computing the average (mean) price of the stock over a specified number of periods.
For example: A 20 day SMA is calculated by adding the closing prices for the last 20 days and dividing the total by 20. (See fig. 1) [4].

Fig. 1:

V. Moving Average Convergence/Divergence (MACD)

MACD is a trend following indicator that shows the relationship between two SMA of prices. It is a difference between a 26-day SMA and 12-day SMA. A 9-day SMA called the "signal line" is plotted on the top of MACD to show buy/sell opportunities. The basic MACD trading rule is to sell when the MACD falls below its signal line. Similarly, a buy signal occurs when the MACD rises above its signal line. A bearish divergence occurs when the MACD is making new lows while prices fail to reach new low. A bullish divergence occurs when the MACD is making new highs while prices fail to reach new highs (see Fig. 2) [4].

Fig. 2:

VI. Methodology

It is a strategy of regular and systematic buying and selling of stock at preplanned prices. The decisions of buying and selling of stocks are not taken during open hours of market. It has to be decided in advance before the opening of stock market every day. Firstly, we have to choose an equity stock which is technically strong. Choose the stock whose MACD is positive and MACD signal line is above its MACD line. Note that we are not using MACD indicator to predict the future movement of stock but rather insuring that stock is technically strong. After choosing appropriate stock, start buying the stock regularly when ever it goes down by 1% each time and start selling when it moves up by 1% each time. In this strategy, we used 1% gap in price for fresh buying or selling. It may be adjusted by trader or investor according to their suitability and amount of capital to invest. Remember that buying process of stock at each lower price will continue until MACD signal line is above its MACD line otherwise leave the stock and choose other stock which is technically strong.

VII. An Empirical Example

Let us choose an equity stock, Tata Motors, to show how to apply this strategy in details. Let we buy 10 shares of Tata Motors at current market price of Rs. 300. Fix the target price in advance to sell these 10 shares. Let us suppose that target price is fixed at Rs.303 (1% up). If this target is achieved, we have profit of 1% on our investment. Now think about the opposite face of the reality, if stock slips below to Rs. 300 and moves to Rs. 297 (1% down), then buy 10 more shares of Tata Motors at Rs. 297. Now we have 20 shares of Tata Motors in our portfolio. We will sell these 20 shares at two different prices.We will sell 10 shares (brought at Rs. 297) at price Rs. 300 and remaining 10 shares (brought at Rs. 300) at price Rs.303.Here we sell shares at 1% up price of their buying value.It means that we will always buy stocks when it moves down by 1% and sell when it moves up by 1%. If this strategy is used systematically and regularly,we can book profit daily in the market. Remember that buying process of stock at each lower price will continue until MACD signal line is above its MACD line otherwise leave this stock. Suppose we have accumulated 100 shares of Tata Motors and MACD signal line is going below its MACD line. We will sell all these 100 shares and will invest the equivalent amount obtained by selling 100 shares to some other stock whose MACD signal line is above its MACD line.

VIII. Conclusion

In this paper, we explained the strategy of regular and systematic buying and selling of stocks whenever stock price moves up and down by 1%.It has been observed that many times stock trade in some range for long time. In such scenarios simple buy and hold style of trading seems unprofitable. On the other hand if systematic buying and selling at each 1% move is made,then small amount of profit earned daily can be a big amount after some days.

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