SWOT ANALYSIS FOR STOCK

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Abstract
The past decade in many ways has been remarkable for securities market in India. It has grown exponentially as measured in terms of amount raised from the market, number of stock exchanges and other intermediaries, the number of listed stocks, market capitalization, trading volumes and turnover on stock exchanges, and investor population. Along with this growth, the profiles of the investors, issuers and intermediaries have changed significantly. The market has witnessed several institutional changes resulting in drastic reduction in transaction costs and significant improvements in efficiency, transparency, liquidity and safety. In a short span of time, Indian derivatives market has a place in list of top global exchanges. In single stock futures category, the Futures Industry Association (FIA) placed NSE in second position in the year 2000. This paper discusses about the performance of NSE and BSE in India and suggestions to improve their performance.

I. Introduction
This can be extended to a stock index too. One can calculate the aggregate dividend yield of an index, compare it with past dividend yields and see if the current yield is low or high. A low dividend yield indicates an overpriced market and vice versa. Let's demonstrate it by a simple calculation. According to the National Stock Exchange data, the average dividend yield of the Nifty in the last couple of months has been around 1.5 per cent. On 2 November 2011, the Nifty closed at 5,263. The current dividend yield is Rs 79.

A depository works as a link between the listed companies which issue shares and shareholders. It issues these shares through agents associated with it called depository participants or DPs. A DP can be a bank, financial institution, a broker, or any entity eligible as per SEBI norms and is responsible for the final transfer of shares from the depository to investors. The investor, at the end of a transaction receives a confirmation from the depository.

II. Related Work
Insider trading based on unpublished price-sensitive information is illegal. An 'insider' can buy or sell shares provided they inform the stock exchanges on which the stock is listed if the transaction goes beyond a certain threshold. If the shareholding of an insider changes by more than Rs 5 lakh in value, 25,000 shares or 1 per cent of total shares or voting rights, it has to be brought to the notice of stock exchanges and the company. Information on insider trading is available on websites of stock exchanges and can be used to predict future prices. Here's how. Studies suggest that while an insider may have many reasons to sell, the only reason for buying can be that he is bullish on the prospects of the company.
**Interest rates**

Changes in interest rates impact companies. Conventional wisdom says one must buy shares when short-term rates (treasury bills) are low and sell when they are high. Rajeev Thakkar, CEO, Parag Parikh Financial Advisory Services, says: "The corporate sector is a net borrower of funds and an increase in interest rates is usually negative for it. Higher rates also hit demand in rate-sensitive sectors such as real estate and automobiles."

### About Weka

Predict nominal or numeric quantities, we have classifiers in Weka. Available learning schemes are decision-trees and lists, support vector machines, instance-based classifiers, logistic regression and Bayes’ nets. Once the data has been loaded, all the tabs are enabled. Based on the requirements and by trial and error, we can find out the most suitable algorithm to produce an easily understandable representation of data. Before running any classification algorithm, we need to set test options. Available test options are listed below.

- **Use training set**: Evaluation is based on how well it can predict the class of the instances it was trained on.
- **Supplied training set**: Evaluation is based on how well it can predict the class of a set of instances loaded from a file.
- **Cross-validation**: Evaluation is based on cross-validation by using the number of folds entered in the ‘Folds’ text field.
- **Split percentage**: Evaluation is based on how well it can predict a certain percentage of the data, held out for testing by using the values entered in the “%” field.

### III. Methodology

#### A. Clustering

Clustering is very much important as it determines the intrinsic grouping among the unlabeled data present. There are no criteria for a good clustering. It depends on the user, what is the criteria they may use which satisfy their need. For instance, we could be interested in finding representatives for homogeneous groups (data reduction), in finding “natural clusters” and describe their unknown properties (“natural” data types), in finding useful and suitable groupings (“useful” data classes) or in finding unusual data objects (outlier detection). This algorithm must make some assumptions which constitute the similarity of points and each assumption make different and equally valid clusters.
Clustering Methods:

1. **Density-Based Methods**: These methods consider the clusters as the dense region having some similarity and different from the lower dense region of the space. These methods have good accuracy and ability to merge two clusters. Example *DBSCAN* (*Density-Based Spatial Clustering of Applications with Noise*), *OPTICS* (*Ordering Points to Identify Clustering Structure*) etc.

2. **Hierarchical Based Methods**: The clusters formed in this method forms a tree type structure based on the hierarchy. New clusters are formed using the previously formed one. It is divided into two category
   - Agglomerative *(bottom up approach)*
   - Divisive *(top down approach)*
   examples *CURE* (*Clustering Using Representatives*), *BIRCH* (*Balanced Iterative Reducing Clustering and using Hierarchies*) etc.

3. **Partitioning Methods**: These methods partition the objects into k clusters and each partition forms one cluster. This method is used to optimize an objective criterion similarity function such as when the distance is a major parameter example *K-means*, *CLARANS* (*Clustering Large Applications based upon randomized Search*) etc.

4. **Grid-based Methods**: In this method the data space are formulated into a finite number of cells that form a grid-like structure. All the clustering operation done on these grids are fast and independent of the number of data objects example *STING* (*Statistical Information Grid*), wave cluster, *CLIQUE* (*CLustering In Quest*) etc.
IV. RESULT
PROBLEM 1: FIND THE PREDICATION ON SHARE RATES FOR UPCOMING YEARS FOR INDIVIDUAL COMPANIES

A put option is an agreement between two parties to exchange an asset at a pre-determined rate on or before a specific date. The buyer of the put option has the right but no obligation to sell the asset (stock, commodity) at a specified price on or before a fixed date, while the seller has the obligation to buy at the pre-specified price if the option. A call option, on the other hand, gives the buyer of the option the right but no obligation to buy a particular asset from the seller of the call option at a fixed price on or before a particular date. The put-call ratio is calculated by dividing the number of traded put options by the number of traded call options.

Trading volume indicates the number of shares or contracts traded in the market. It tells if a particular price trend is supported by market players. If the price of a share is increasing with higher than normal volume, it indicates investors support the rally and that the stock would continue to move upwards. However, a falling price trend with big volume signals a likely downward trend. A high trading volume can also indicate a reversal of trend. For example, a drop in the share price with very high trading volume is viewed as a sign that the stock has hit the bottom. Of the data using there could be done at a time of A put option is an agreement between two parties to exchange an asset at a pre-determined rate on or before a specific date. The buyer of the put option has the right but no obligation to sell the asset (stock, commodity) at a specified price on or before a fixed date, while the seller has the obligation to buy at the pre-specified price if the buyer wishes to exercise the option. A call option, on the other hand, gives the buyer of the option the right but no obligation to buy a particular asset from the seller of the call option at a fixed price on or before a particular date. The put-call ratio is calculated by dividing the number of traded put options by the number of traded call options.
V. Conclusion

The stock value of the individual company can be reloaded. Although the process of compulsory dematerialization is nearing completion, its full benefits have not been reaped because of slow progress in introduction of rolling settlement. Further, the compulsory dematerialization of shares for trading purpose has been introduced in a phased manner with the aim of synchronizing the settlement of trade and transfer of securities irrespective of geographical locations, and eliminating the ills associated with paper based securities system such as delay in transfer, bad delivery, theft and forgery.

Reference