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FINDING

The present research work focussed on the portfolio and its optimization concept and made a comparison between the traditional and modern portfolio theory. The difference from now and then is the access to a wider variety of asset classes and more available information. It can be stated that a modern portfolio theory follows the quantitative approach, unlike traditional portfolio theory, which is based on the non-quantitative method. From the information perspective, it is also easier to combine these different assets into complex portfolio strategies where the risks get reduced by balancing foreign investments in traditional theory.

In this study, the Neuro-fuzzy system has been for the investors to optimize the portfolio which incorporates the combined characteristics of both neural and fuzzy. To formulate the goal programming model for portfolio optimization, the investor must define various goals and constraints. Hence, the study provided a solution to the investors when choosing stock for their portfolio, particularly in their multiple conflicting objectives.

Fuzzy Logic Designer: Fuzzy logic attempts to solve problems with an open, imprecise spectrum of data and heuristics that makes it possible to obtain an array of accurate conclusions. It is an approach to variable processing that allows for multiple possible truth values to be processed through the same variable and is designed to solve problems by considering all available information and making the best possible decision given the input. This Fuzzy logic is a heuristic approach that allows for more advanced decision-tree processing and better integration with rules-based programming.

Goal Programming Model: Goal programming is a branch of multi-objective optimization, which in turn is a branch of multi-criteria decision analysis (MCDA). A major strength of goal programming is its simplicity and ease of use. Goal programming can hence handle relatively large numbers of variables, constraints, and objectives. It shows that the investors should use the classical mean-variance model of portfolio optimization developed by Markowitz which is

highly applied in finance sector and the various extensions of the Markowitz's model by considering alternative measures of risk, namely, semi-variance, absolute deviation and semi-absolute deviation which have been briefly stated and well applied in different sectors too.

A wise investor should introduce advanced optimization techniques and must apply them for the development of various multi-criteria portfolio optimization models in an uncertain environment. A bi-objective fuzzy portfolio selection model should be applied to maximize the portfolio return and to minimize the portfolio risk. For such an output an investor should use the fuzzy interactive approach to solve the model so that the desired aspiration levels of the decision maker with regard to return and risk objectives are achieved as closely as possible.

Investors are always faced with a dilemma of selecting some of the important objectives out of a given list of multiple objectives, within the given constraints in such a case, satisficing solution is achieved using Goal Programming (GP) portfolio optimization model. The decision maker facing numerous variations of constraints and goals, particularly in the field of Portfolio optimization should use Goal Programming (GP) approach in the field of multiple criteria decision making which ultimately helps in performance measurement in portfolio selection context is also because many issues in optimality theorem can be easily addressed by GP such as multi-period, different measures of risk, and extended factors influencing portfolio selection.

This study has taken only the impact of two soft intelligent computing techniques in portfolio optimization on the Indian Stock Market. However, there are many other models other than the Fuzzy and the Goal Programming model that are examined in this study. This may be further extended, to include many other stock exchanges of India and other countries. This However, the study can be taken to examine the impact of intelligent computing techniques for portfolio optimization on various individual investors as well operating in India.