

## **An Evaluation of Investor Acceptability for Mutual Funds Using Classification (Decision Tree)**

SONIYA GARG\*  
GAURAV SHARMA\*\*

---

### **Abstract**

Mutual funds are very popular among the investment avenues these days. These are the choice of millions of people because mutual funds provides steady return with low risk. A large number of schemes and funds available in the market. This paper is an attempt to find out the investor acceptability towards mutual funds with the help of classification (decision tree model). In this paper several factors have been identified through various reviews of literature. A structured questionnaire is generated and sent to 500 investors. 428 questionnaires were found complete and few decision tree model has been generated on the basis of the data collected. The models were compared and results have been discussed further. Model 3 based on C50 rule decision tree with all the variables, shows the highest rating for the performance measures and depicts that all the variables are important in the decision of investor acceptability towards mutual funds. The present study was confined to NCR region of India only.

---

### **I. Introduction :**

MUTUAL FUNDS ARE among on the best investment avenues these days .The growth of mutual fund industry is one of the significant growth in Indian financial sector. Many people invest in the mutual funds. The reason of investments comprises of many factors including low risk and steady returns. Understanding investor acceptability towards mutual fund is very necessary these days. This paper is an attempt to identify the factors which affects investor acceptability towards mutual fund and to develop decision tree model for the same.

### **II. Review of literature**

In a study conducted by Sujit and Singh (1996) , it was concluded that investors invest in mutual fund due to tax concessions. This survey was done in the north east region of India to understand the behavioural aspects of the investors.

\* Associate Professor, Indirapuram Institute of Higher Studies, Vishisht Shiksha Bhokhnd, Nyay Khand-1, Indirapuram, Ghaziabad, Uttar Pradesh 201012, INDIA

\*\* Assistant Professor, University of Delhi, Rajdhani College, Mahatma Gandhi Marg, Block C, Raja Garden, Delhi 110015, INDIA

*Submitted January 2020; Accepted June 2020*

*Article accepted under MoU signed with GLA University (India) in 2019-2020*

In order to interpret the results we have combine few measures in a form of Table I.

**Table I**  
**Summer of Model Results**

| Model No | Accuracy |
|----------|----------|
| Model 1  | 73.13    |
| Model 2  | 73.13    |
| Model 3  | 77.54    |
| Model 4  | 73.13    |

Source: Self Computed

As visible from the Table I that Model 1, Model 2 and Model 4 have the same accuracy. Model 3 has more accuracy. Further we will compare the precision recall, sensitivity and specificity of the models, we got that Model 3 is the best model.

#### 4.2 Results and Conclusion

As clear from the above data that Model 3 is the best model for the evaluation of investor acceptability towards mutual funds. When we consider the rpart tree decision model, there is not much effect of the risk, return and tax benefit on the acceptability, as visible from the results obtained from Model 1 and Model 2 and Model 4. Model 3 based on C50 rule decision tree with all the variables, shows the highest rating for the performance measures and depicts that all the variables are important in the decision of investor acceptability towards mutual funds except returns .If we don't include the second most variable (risk) of Model 3 in Model 4 (as it depends on only two variables )then the importance of professional management will increase. This is clear from the sensitivity and specificity also.

#### 4.2 Limitations of the study

The present study was confined to NCR region of India only. only few selected factors were included in the study. Personal bias of the respondent may have some effect on the present study and sample size was 500, which may not be true representation of the investors investing in mutual funds.

### References

- Kaneko, H., (2004), "*Individual Investor Behavior*", Nomura Research Institute, Security Analysts Association of Japan, 2004
- Kim, K.A., and J.R. Notsinger, (2003), "*The Behavior and Performance of Individual investors in Malaysia*", State University of New York, USA, 2003.
- Mishra, P.K., and M.K. Dash, (2010), "Factors Influencing Investment Decision of Generations in India: An Econometric Study", *Asian Journal of Management Research*, pp. 305-326.
- Moorthy, Rama, V.E., and T.R. Rajeshwari, (2001), "Mutual Fund and Self-Regulation in Indian Context", *Sankalpa*, Vol. 9, July-December 2001, pp. 95-101
- SEBI – NCAER, (2000), *Survey of Indian Investors*, SEBI, Mumbai, 2000
- Sujit, S., and A.P. Singh, (1996), "*Financial services: Investment in equity and mutual funds – A behavioural study*", in Bhatia B.S., and Batra G.S., (ed.), *Management of Financial Services*, Deep and Deep Publications, New Delhi, Chapter 10, pp. 136-145
- Tamimi, H.A.H., (2004), "*Factors Influencing Individual Investor Behavior: An Empirical Study of the UAE Financial Markets*", University of Sharjah, United Arab Emirates, 2004

# Literature in Finance

## Management

Vol. V

J.D.Agarwal  
Aman Agarwal

Indian Institute of Finance

|   |         |           |          |
|---|---------|-----------|----------|
| <b>Vol. I Corporate Finance</b>                 | pp. 198 | Rs. 280/- | US \$ 43 |
| <b>Vol. II Accounting</b>                       | pp. 118 | Rs. 200/- | US \$ 35 |
| <b>Vol. III Financial Systems &amp; Markets</b> | pp. 230 | Rs. 310/- | US \$ 46 |
| <b>Vol. IV Specialised Finance</b>              | pp. 218 | Rs. 410/- | US \$ 56 |
| <b>Vol. V Management</b>                        | pp. 154 | Rs. 310/- | US \$ 46 |
| <b>Vol. VI Economics</b>                        | pp. 178 | Rs. 270/- | US \$ 42 |

Contact : **IIF Publication, Indian Institute of Finance ([www.iif.edu](http://www.iif.edu))**  
45 A, Knowledge Park III, Greater Noida 201310

© Indian Institute of Finance