



Review Paper

Review on behavioural factors affecting investment decisions

Sushma Singh* and Sunil Kumar

Bhilai Institute of Technology, Durg, CG, India
sunilkushwaha.bit@gmail.com

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Abstract

This paper provides background to explore the key objectives of behavioural finance and its determinants which attempt to explain the biases and inefficiencies present in the financial market. The purpose of this paper is to identify some future research issues of the determinants of behavioural finance in correlation to investment strategies and management. The research is based on searching keywords in database in Google Scholar, Elsevier and Emerald on the basis of number of publications and times cited for the respective factor to measure the contributions of active researchers. Considering behavioural finance as emerging area of research in relation with investment strategies many researchers are contributing, making it a significant field of study considering specific determinant. This paper highlights with limited number of literature survey that there is considerable impact of determinants on decision making and need to be studied in depth. Most of the model formulated for analysis purpose in the literatures so far reviewed has some limitations to justify every behavioural factor and variables. Research related to factors which have association with varying time like time varying aggregate risk and variation in return is to be analysed. Finally, this paper will draw unique conclusions across behavioural finance and hypothesise about which determinants within the scope of behavioural finance are likely to yield most influencing research in the near future.

Keywords: Behavioural Finance, Psychology, Decision Making, Determinants, Pricing Inefficiencies, Sentiment Shifts.

Introduction

Behavioural finance has focused on the study of the rationality of investors as well as cognitive process involved in the financial decisions related to savings and investments¹. Modern finance somehow tries to justify the efficient market hypothesis and assumes that markets are efficient and that agents know the probability distribution of future market risk. Considering the limitations of modern finance regarding justification of investment strategies²⁻⁴ being followed by investors under different scenario, behavioural finance models are usually developed to explain investor behaviour or market inefficiency when rational models provide no sufficient explanation. Behavioural aspects and psychology often affects the investor's decisions, which are evident from irrational decisions under the influence of attitude, overreaction, under-reaction, fear, overconfidence, group behaviour etc⁵. In recent years, many researchers in the area of finance and investment have made significant attempts in exploring range of investment strategies like return predictability, determinants of equity prices, performance evaluation and investor's sentiments⁶. Many of their research works have been accepted in the top journals in the field of financial economics⁷. This shows that behavioural finance is becoming an increasingly significant area for research.

This paper begins the review of past and recent studies to explore the association of behavioural factors influencing the

investment decision with the returns through investments and savings. The findings through literature of the study are then presented and discussed to identify any gaps and scope for further study. The paper concludes with a summary of the main findings of the study, their implications and future scope of research, as well as a consideration of the limitations of the study if any.

Broad Literature Survey

Attitude: Behavioural Finance is one of the dynamic and fully developed fields and in recent years there have been many discussions about savings and growth especially considering demographic factors⁸. It has been investigated that demographic determinants are effective in investment and saving inclination of individuals. The individual risk attitudes are related to interpersonal conflict⁹. It has been found that that the difference in risk attitudes between two individuals is significantly and positively related to the presence of interpersonal conflict between them¹⁰. Even the investments by enterprises are driven by the attitude of the individual entrepreneurs influenced by the accessibility skilled workforce, costs and competitions¹¹. Along with the attitude, the benefits of collective investment results in efficient diversification of risk, professional management of savings, availability and expansion of investment opportunities for small investors¹².

Fear and Insecurity: Behavioural finance is one of the significant areas of research as many of the papers are new and emerging in nature and have limited review papers. With consolidation of financial market across the world the importance of behavioural factor like fear and insecurity plays an important role while making investment or saving plan. There is strong relationship between economic development, investments, savings, insecurity and social conditions¹³. The negative price movements in the markets are triggered by external as well as internal factors in our society that creates fear for future among investors. This is parameterized by a “fear factor” defining the frequency of synchronized events¹⁴. Many research results evidenced that VIX is the gauge of investor fear, where in the expected stock market volatility rises when the given market is declined. Which implied volatility as the investor fear gauge or/and forward-looking expectation of future stock market volatility within emerging markets setting-India VIX.

Group or Herd Behaviour

Factors like anxiety, interests in financial issues, decision styles, need for precautionary savings, and spending tendency as self stated attitudes and behaviours for a range of daily financial affairs¹⁵. Group dynamics plays an important role in making decisions related to investment plan and strategies, thus there is need of specific business models to include group behaviour of individual investors¹⁶. The herd behaviour of investors represents a significant cause of speculative bubbles which implies that investors are taking similar trading decisions which may lead to deviations of the stocks prices from their fundamental value¹⁷. Similar study on European market performed between the period between 2003 and 2011 analyses the relationship between herd behaviour and investor sentiment, an area that has been little explored. Examining these herd behaviour of investors in the stock market fund managers and financial agents formulate investment strategies and analysing the causality tests¹⁸. Neural study of individual investors performed revealed modulation of the brain circuits that regulate trade behaviour under different market conditions¹⁹. For any decision related to investment and savings or any asset preference that might bias the decision, the brain regions associated with cognitive processing that supports order decisions were identified²⁰.

Learning

Functioning of financial markets found to be strongly correlated with the financial behaviour of individuals which have been traditionally in experimentation phase with economics and psychology which motivates for empirical analysis and study²¹. It is common for corporations to show learning behaviour with other firms in decision making related to investment strategy, growth opportunities, external environment and strategy related to consumer demand. Financial tools like augmented genetic learning algorithm (FLOWER), Tree Induction and Rule

Induction are some of the basic learning data mining tools for some of the difficult financial prediction problem²². The proportion of positive investment decision associated with individual investors found to be highly correlated with individual having fair degree of information about the investment strategy and kind of return expected¹⁰. Further research includes a greater range of decision choices as well as kind of decision-associated information available²³. Professional learning is a critical component of ongoing improvement in making decision as a significant predictor and helps in valuation of investment opportunities²⁴.

Overconfidence: Learning any new concept requires understanding the gap between what already known and what one hopes to know and needs self assessment to identify the gap²⁵. Sometimes self-assessment leads to overconfidence, which often leads to making poor choices or decisions and create obstacles in learning process²⁶. Overconfidence can be characterised as unwarranted faith in one’s intuition, judgments, and decision taking capability²⁷. Many psychological and experimental studies on overconfidence bias showed that overconfident investors overreact to their private signal²⁸. The decision related to financial investment and savings at individual or enterprise level are influenced by cognitive processes and overconfidence is one of the factor which may lead to making mistakes in decisions²⁹. Impact of overconfidence on investor’s opinion can lead to economic bubbles that may severely affect the stock market³⁰.

Over-reaction: One of the famous investment market anomalies is overreaction, in which investors tend to give excess importance to recent information as compared to that of past when making saving or investment decisions³¹. Overreactions are associated with irrational behaviour of investors who reacts and takes decisions on the basis of latest available information³². Such overreactions lead price corrections which have significant impact on deviations of the asset prices from their fundamental value³³.

Perception: Garling et al. studied that the perception of risk is an important part of financial decision-making process and it is affected by many variables such as demographics and personality. Individual’s perception of risk is correlated with loss one side while profit on the other, which is influenced by many, factors like cognitive as well as emotional³⁴. It is important to note that many of the control variables like personal income, economic freedom, decision taking and education attainment are positively correlated with the perception of an individual³⁵. Although investors need to be compensated for some aspects of perceived risk this does not apply to all dimensions of perceived risk³⁶. In particular there is little evidence that individual investors want compensation for volatility of returns³⁷.

Conclusion

This paper tries to evaluate the determinants of behavioural factors in decision making Capability of an individual or enterprise representative in their capacity regarding investment or saving strategies. The implications of the findings from the above literature review in the area of behavioural science and investments are as follows: The research in area of behavioural finance has attracted many researchers and scholars considering it an emerging area with huge scope of study and findings. It has been found that there is huge scope for further research in region and country specific as most of the research are concentrated in USA, China, Spain, Germany, Israel, Australia. Thus, provides scope for research in India and other South-East Asian countries.

Most of the papers so far reviewed have considered behavioural factors which have considerable impact on making decisions like investment and savings are limited to attitude, fear, overreaction, under-reaction, overconfidence and group behaviour. While the factors like emotional intelligence, perception, learning, personality, under-reaction and sentiments have limited study. Thus these factors to be considered and should be studied in depth for taking investment decisions. This provides further scope for research taking these variables.

It is required to investigate in detail the relationship of risk taking capability of an individual and its relationship with actual behaviour, relationship of actual behaviour with self-stated, correlation of changes in attitude and perception over one's life cycle. The impact of ageing and time, and hence for each individual all factors cannot remain same and changes will also be disproportionate. Further, categorisation related to earning capacity and profession will help to further find the impact of other factors on investment strategies.

Every model formulated for analysis purpose in the literatures so far reviewed has some limitations to justify every behavioural factor and variables. Research related to factors which have association with varying time like time varying aggregate risk and variation in return is to be analysed. Nonlinearity in the model provides future scope of research in same area, other investment and saving avenues like banks, postal, bonds, commodity, forex, impact of unorganised factors and investment strategies should also be included for the given region of study.

Many papers reviewed so far, it is found that methods developed within psychology and sociology have not had the same degree of influence on investment strategies as is expected on the basis of formulated models and research done. Behavioural finance in its nascent stage may have started as a multidisciplinary with many behavioural factors and determinants with its own learned societies, journals and conferences. However, this discipline is still developing and continues to develop new methods, process and ideas from other

disciplines and region specific factors like demographics and culture.

References

1. Vieira E.F. and Pereira M.S. (2015). Herding behaviour and sentiment: Evidence in a small European market. *Revista de Contabilidade – Spanish Accounting Review*, 18 (1), 78-86.
2. Markowitz H. (1952). Portfolio Selection. *The Journal of Finance*, 7(1), 77-91.
3. Merton R.C. (1969). Lifetime Portfolio Selection under Uncertainty: The Continuous-Time Case. *The Review of Economics and Statistics*, 51(3), 247-257.
4. Fama E.F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25(2), 383-417.
5. Huang Jim Yuh, Shieh J.C. and Kao Y.C. (2015). Starting points for a new researcher in behavioural finance. *International Journal of Managerial Finance*, 12 (1), 92-103.
6. Shaikh I. and Padhi P. (2015). The implied volatility index: Is 'investor fear gauge' or 'forward-looking'. *Borsa Istanbul Review*, 15(1), 44-52.
7. Henker J., Henker T. and Mitsios A. (2006). Doinvestors herd intraday in Australian equities?. *International Journal of Managerial Finance*, 2(3), 196-219.
8. Doker A.C., Turkmen A. and Emsen O. (2016). What Are the Demographic Determinants of Savings? An Analysis on Transition Economies (1993-2013). *Procedia Economics and Finance*, 39(2), 275-283.
9. Lahno A.M., Garcia M.S., D'Exelle B. and Verschoor A. (2015). Conflicting risk attitudes. *Journal of Economic Behavior & Organization*, 118(1), 136-149.
10. Aren S. and Dinç Aydemir S. (2015). The factors influencing given investment choices of individuals. *Social and Behavioral Sciences*, 210(2), 126-135.
11. Snieska V. and Zykiene I. (2015). City attractiveness for investment: characteristics and underlying Factors. *Procedia - Social and Behavioral Sciences*, 213(2), 48-54.
12. Spuchľakova E., Frajtova Michalíkovab K. and Misankova M. (2015). Risk of the Collective Investment and Investment Portfolio. *Procedia Economics and Finance*, 26(1), 167-173.
13. Poveda A.C. (2013). The relationship between development, investments, insecurity and social conditions in Colombia: a dynamic approach. *Qual Quant*, 47(2), 2769-2783.
14. Simonsen Ahlgren P., Jensen M., Donangelo R. and Sneppen K. (2007). Fear and its implications for stock markets. *The European Physical Journal*, 57(4), 153-158.

15. Mei F.B. (2009). Attitudes and behaviour in everyday finance: evidence from Switzerland. *International Journal of Bank Marketing*, 27(2), 108-128.
16. Jagannathan R.K. (1998). Relationship between Labor Income Risk and Average Return: Empirical Evidence from the Japanese Stock Market. *The Journal of Business*, 71(3), 319-347.
17. Filip A., Pochea M. and Pece A. (2015). The herding behaviour of investors in the CEE stocks markets. *Procedia Economics and Finance*, 32(2), 307-315.
18. Shih T.L., Hsu A.C., Yang S.J. and Lee C.C. (2012). Empirical research of herding behavior in the Pacific Basin stock markets: Evidence from the U.S. stock market rise (drop) in succession. *Social and Behavioral Sciences*, 40(2), 7-15.
19. Ogawa A., Onozaki T., Mizuno T., Asamizuya T., Ueno K., Cheng K. and Iriki A. (2014). Neural Basis Of Economic Bubble Behavior. *Neuroscience*, 265(1), 37-47.
20. Fauzi R. and Wahyudi I. (2016). The effect of firm and stock characteristics on stock returns: Stock market crash analysis. *The Journal of Finance and Data Science*, 2(2), 112-124.
21. Darren D. (2015). Behavioral finance: insights from experiments I: theory and financial markets. *Review of Behavioral Finance*, 7(1), 78-96.
22. Dhar V., Chou D. and Provost F. (2000). Discovering Interesting Patterns for Investment Decision Making with GLOWER —A Genetic Learner Overlaid with Entropy Reduction. *Data Mining and Knowledge Discovery*, 4(4), 251-280.
23. KAZMIER L.J. (1968). Probability learning as related to the response format used. *Psychon. Science*, 11(6), 199-200.
24. Littlejohn A., Milligan C., Fontana R.P. and Margaryan A. (2016). Professional Learning Through Everyday Work:How Finance Professionals Self-Regulate Their Learning. *Vocations and Learning*, 9(2), 207-226.
25. Ehrlinger J., Mitchum A.L. and Dweck C.S. (2016). Understanding overconfidence: Theories of intelligence, preferential attention, and distorted self-assessment. *Journal of Experimental Social Psychology*, 63(2), 94-100.
26. Mishra K. and Metilda M.J. (2015). A study on the impact of investment experience, gender, and level of education on overconfidence and self-attribution bias. *IIMB Management Review*, 27(4), 228-239.
27. Jing G., Hao C. and Xian Z. (2013). Influence of Psychological and Emotional Factors on the Venture Enterprise Value and the Investment Decision-Making. *Information Technology and Quantitative Management*, 17(1), 919-929.
28. Boussaidi R. (2013). Overconfidence Bias and Overreaction to Private Information Signals: The case of Tunisia. *Social and Behavioral Sciences*, 81(2), 241-245.
29. Frydman C. and Camerer C.F. (2016). The Psychology and Neuroscience of Financial Decision Making. *Trends in Cognitive Sciences*, 20(9), 661-675.
30. Țițan A.G. (2015). Do Confidence Indexes Consider The Available Macroeconomic Information on Short Term?. *Economics and Finance*, 23(1), 501-506.
31. Virlics A. (2013). Investment Decision Making and Risk. *Economics and Finance*, 6, 169-177.
32. Yin S., Mazouz K., Benamraoui A. and Saadouni B. (2017). Stock price reaction to profit warnings: the role of time-varying betas. *Rev Quant Finan Acc.*, 1-27.
33. Caporale G. M., Alana L.G. and Plastun A. (2014). Short-Term Price Overreactions: Identification, Testing,Exploitation. *Computational Economics*.
34. Aren S. and Zengin A.N. (2016). Influence of Financial Literacy and Risk Perception on Choice of Investment. *Social and Behavioral Sciences*, 235, 656-663.
35. Nikolaev B. and Bennett D.L. (2016). Give me liberty and give me control: Economic freedom, control perceptions and the paradox of choice. *European Journal of Political Economy*, 45(2), 39-52.
36. Geetha S. and Vimala K. (2014). Perception of Household Individual Investors towards Selected Financial Investment Avenues (With Reference to Investors in Chennai city). *Economics and Finance*, 11(2), 360-374.