

Antecedents of Individual Investor Behaviour: Awareness, Risk Perception and Decision making – A SEM Approach

Dr.T.Jayashree*, Associate Professor, RVS Institute of Management Studies and Research,
Coimbatore

Dr. K.Chitra, Principal, Sri Ramakrishna College of Arts and Science for Women, Coimbatore

Article Info

Volume 83

Page Number: 2843 - 2853

Publication Issue:

May - June 2020

Abstract:

Influence of capital market ensures economic development of the country. Equity markets play a major role in capital rationalization and business investment distribution. The investors' decision regarding the equity market is pertinent in determining the market trend, thereby affecting the economy. The main objective of this research is to analyse the impact of behavioural factors influencing the decision making of equity investors. Also identifying the extent of awareness about the equity markets and risk perception determining the behaviour of the investors is analysed. The study pertains on how the behavioural factors on the investment decision making viz., Technical analysis, and Fundamental analysis and Market psychology have impact. By using Descriptive research design, primary data is collected from short term investors through non probability sampling method. Factor analysis and Structural Equation Model are used for analysis. The research shows that perception of risk has a significant impact on investor behaviour. The results indicate the structural path model closely fit to the sample data, demonstrating the effect of behavioural factors on investment decisions.

Article History

Article Received: 11 August 2019

Revised: 18 November 2019

Accepted: 23 January 2020

Publication: 10 May 2020

Keywords: Behaviour factors, Decision Making, Risk Perception, Investor Awareness.

1. INTRODUCTION

Ensuring growth and development by achieving 5 trillion economy is a primary objective of our country which hinge on the productive investments. There is a greater need to develop and strengthen capital markets in order to mobilize commercial financing. In this context, capital markets gains significance as it provides as a platform for raising the investment needed for business ventures. Capital markets are highly volatile market and the behaviour of retail investors adds to the complexities faced in the VUCA world. The role of Stock exchanges fosters economic growth and sustainable development. World Federation

of Exchanges and stock exchanges' websites & OECD Equity Market Review of Asia (2018) reported National Stock exchange registered 1,923 listed companies contributing a market capitalisation of US \$ 2,056 Billion with trading volume of US \$ 1,164 Billion. Bombay Stock exchange registered 5,233 listed companies showing a market capitalization of 2,088 with a trading volume of US \$ 116 Billion. The market capitalisation as share of GDP for NSE and BSE shows 1.53, which triggers on investment opportunities, is huge and high growth potential market prevails in the economy. The investor's participation in

capital market is based on their knowledge and how well they gather information from peers, friends, brokers and professional advisors. The risk investors perceive also affects their behaviour in their investment pattern. Further the emotional and cognitive bias of an investor influence the decision making.

Extensive studies on behaviour of individual investors undertaken in various countries reveal that their trading decisions are often biased and it is essential to identify investor's characteristics on behavioural perspective. In this regard, the research in investor behaviour will provide inputs for the regulators, brokerage houses, professional advisors and government for making appropriate and effective decisions related to market stabilization.

2. LITERATURE REVIEW

Ann-Renee Blais and Nancy E. Betz (2002) presents a psychometric scale assessing risk taking in five content domains: financial decisions, health/safety, and recreational, ethical and social decisions. Respondents rate the likelihood that they would engage in domain specific risky activities. It also assesses respondents' perceptions of the magnitude of the risks and expected benefits of the activities. A regression of risk taking on expected benefits and perceived risks suggests that gender and content domain differences in apparent risk taking are associated with differences in the perception of risk. Jappelli (2004) generalizes the evidence on determinants of financial awareness. It focuses on the theoretical framework on information production and dissemination, indicators of financial awareness, effect of household characteristics, cost of information production and social learning. Social learning through channel facilitates

awareness among potential investors, though it may induce financial intermediaries to disseminate less information. Gong-Meng Chen (2005) examines the investing behaviour and trading performance in an emerging market. Results show that Chinese investors make trading mistakes i.e., they sell outperformed stocks, and are reluctant to realize their losses. They suffer from disposition effect and tend to be overconfident. Investors seem to be under diversified and trade often; they exhibit a representativeness bias i.e. buying recent short term winners. The result also identify investors who have accumulated relatively more years of investing experience, middle-aged and active investors, relatively more wealth and investors from the more cosmopolitan Chinese cities are prone to behave oral bias.

Lintari (2006) sought to examine the extent to which stock market efficiency depends on the awareness and trust of investors. The study was guided by three major objectives; to examine the relationship between awareness and trust; to establish the relationship and impact of awareness and trust on stock market efficiency. Chun (2007) examines the common underlying investor behavior of Malaysian stock market investor. Four common investor behaviors i.e. overconfidence, loss aversion, representativeness and price anchoring are considered for the study. Finding shows that the representativeness and price anchoring contributes to the decision making process. Overconfidence also influences Malaysian market investors. Inga Chira (2008) studies the effect of subjective behavioral elements in the individual's decision-making process. The study examines the influence of variables viz., excessive optimism and overconfidence, loss aversion, illusion of control and confirmation biases on the decision making process, and the concept of

familiarity. Micheal.M.Pompian (2008) highlights that behavioural factors highly influence investor decision making. Four behavioural types are identified viz., Passive Preserver, Friendly Follower, Independent Individualist and Active Accumulator. The author discusses the cognitive and emotional biases associated with each Behavioural Investor Types. It presents a diagnostic process called Behavioural Alpha, a top down methodology of classifying client investors into behavioural investor types based on their behavioural characteristics. Arvid O.I.Hoffman(2008) aims to analyze how systematic differences in investors' investment objectives and strategies impact the portfolios they select and the returns they earn. The investors who rely on fundamental analysis have higher aspirations and turnover, take more risks, are more overconfident, and outperform investors who rely on technical analysis. Seppala (2009) examines the effects of three behavioural biases on investment advisors. These biases are hindsight bias, overconfidence and self-attribution bias. Findings reveal that the professionals generally outperform other people with lower level of confidence. However, professionals are most exposed to self-attribution bias.

Wanyana (2011) conducted a study in Uganda to examine the influence of investor awareness, and perceived risk attitude on the investor behaviour. The results indicate that the investor awareness and perceived risk attitude are negatively related to stock market investor behaviour. Higher the risk perception, lower the likelihood of investing in a particular stock and lower the risk perception, higher the likelihood of trading more. The way investors perceive risk and

react to it depends on his/her personality traits, level of confidence and return level while making investment decisions. Luong (2011) revealed the behavioural factors influencing the decisions of individual investors at the Ho Chi Minh Stock Exchange. The factors Heuristics, Prospect, Herd and Market have impact on their investment performance. Lubna Riaz (2012) has developed a model to describe the impact of risk propensity, asymmetric information and problem framing on investors' behavior. The mediating role of risk perception in decision making is also highlighted. Khoa Cuong Phan & Jian Zhou (2014) explores the factors influencing individuals' investment behavioural intention by using Theory of Planned Behaviour. Based on qualitative approach, it is identified that four psychological factors – Overconfidence, Excessive Optimism, Psychology of Risk and Herd behaviour have significant impact on individuals' attitude towards investment in the stock market.

3. OBJECTIVES

The research focuses on achieving the following objectives;

1. To understand the factors influencing awareness and risk perception of equity investors
2. To study the determinants of the behaviour and decision making of investors
3. To develop a model to predict the influence of investor behaviour on decision making

4. METHODOLOGY

The study assumes the nature of descriptive study as it explores the determinants of investor awareness, risk perception, behavioural factors and decision making in the equity market. Relevant to literature review and objectives of the study, a structured questionnaire was prepared and responses were obtained on a five point Likert type scale. Sample constitutes of 386 short term equity investors identified from various broking services in Chennai city through a non-probability sampling method. Descriptive Statistics, Factor analysis and Structural Equation modelling are used for analyzing the data. The following research hypotheses are formulated for the purpose of the study:

H₁: Awareness does not have a significant influence on risk perception of Equity investors

H₂: Awareness does not have a significant influence on behavioural factors of Equity investors

H₃: Risk perception does not have a significant influence on Equity investor behaviour

H₄: Behavioural factors do not have a significant influence on Equity Investor Decision making

5.RESULTS AND DISCUSSION

The findings are grouped and presented in 3 section viz., Demographic and Investment profile of the respondents, factors determining awareness, risk perception, behavioural factors and decision making of investors. The third section deals with the model for predicting the investor behaviour influencing investment decisions.

5.1 Demographic and Investment Profile of the respondents

Majority (84%) of the respondents are Male and are married (71%). 37% of the equity investors belong to the age group of 26-35 years. 49% have completed Under graduation. 58% of the respondents are employed in private organizations. 53% of the respondents earn Rs 2 lakh to 5 lakh per annum. 36.1% of them have 2.1 – 5 years of experience. It is identified that 39.5% of the investors invest Rs5001-10,000 monthly and monitor investments hourly in the stock market. 74.3% of the investors choose Stop loss as the tool to minimise loss in their investment pattern. 41.3% of the investors hold the stock for less than one day in their trading activity and 42.4% of the investors plan to increase their investment in the next year.

5.2 Factors influencing awareness, Risk perception, Behavioural factors and Decision making of investors

To assess the reliability of the constructs developed, the Cronbach alpha coefficient for all the dimensions was calculated. Further, Kaiser-Maiyer-Oklin Measure of sampling adequacy and Bartlett's Test of sphericity is used to indicate the proportion of variance in the variables caused by new factors.

Table 5.1 :Reliability, KMO & Bartlett Test of Sphericity for the Constructs

	Awareness	Risk Perception	Behaviour	Decision making
No of items	10	13	24	15
Reliability	0.663	0.625	0.816	0.702
KMO & Bartlett Test of	0.657	0.660	0.640	0.656

Sphericity				
Significance	0.000	0.000	0.000	0.000

Cronbach value given in Table 5.1 for Investor awareness (0.663), Risk perception (0.625), Behavioural factors (0.816) and Decision making (0.702) confirms the homogeneity of the items comprising them, and indicates the acceptable level of reliability. KMO & Bartlett Test of Sphericity values for the factors viz., results are shown below. It is identified that the Investors' Awareness is grouped into 4 dimensions based on the factor loading viz., Media, Social learning, Financial awareness and Company information. Media consist of two variables i.e., investors follow the stock market through financial news on television (0.783) and investors follow the stock market through financial newspaper (0.800). Social learning consist of four variables, comprising that investors look into the websites of BSE/NSE for updates (0.403), they access the latest annual reports, prospectus and financial statement of selected companies (0.619), they are aware about seminars, conferences and workshops hosted by the stock exchange (0.818), they know about stock exchange holding educational programs (0.897). Financial awareness consist of two variables comprising that investors collect information from broker/analyst about stock market (0.725), peers influence their participation in the stock market (0.505). Company information comprising two variables shows that they depend on companies listed on the stock exchange as they publish financial statements (0.750), they are aware about stock exchange giving reports on corporate

Investor awareness (0.657), Risk perception (0.660), Behavioural factors (0.640) and Decision making (0.656) provides an evidence for sampling adequacy for the study. Factor analysis is performed to reduce the variables into few factors. The response collected on the five point scale is subject to factor analysis and the developments of listed companies on a timely basis (0.783).

Investors' Risk Perception is identified with 4 dimensions and the same is subjected to factor analysis viz., Precautious, Fear of loss, Courageous and Rational thinking based on their respective factor loading. Precautious consist of four variables viz., investors have enough familiarity with the type of stocks they have invested (0.763), they invest a major portion of income in a conservative stock (0.658), they are cautious about stock which show sudden changes in price or trading activity (0.656), Most of the time, investment in stocks is made based on their own investment knowledge and experience (0.429).

Fear of loss comprises of three variables viz., investors are worried if the value of their investment decreases (0.778), Most of the time, they fear, whether they would make a wrong decision (0.709), they are afraid to invest in stocks which incur a large loss (0.622). Courageous consist of two variables which shows that investors invest a major portion of their income in a speculative stock (0.814), they are willing to take risks more than an average person (0.757). Rational thinking comprises of four variables which shows that investors are always attracted towards investing in stock with good returns (0.855), they are concerned about financial future more than

an average person (0.770), they do a periodic assessment of risk, return calculation in their stock (0.580), and they ensure equality of risk benefit distribution while investing (0.564).

Behavioural factors are measured with 11 dimensions which were subjected to factor analysis viz., Anchoring, Loss Aversion, Status Quo, Mental accounting, Framing, Hindsight, Cognitive Dissonance, Conservatism, Representativeness, Self confidence and Illusion of control with respective factor loadings. Anchoring bias consist of two variables which includes that investors compare the current stock prices with recent high and low prices to justify their choice (0.770), When thinking about investment, the price they paid is a big factor (0.696). Loss aversion bias consist of two variables which includes the pain of financial loss is two times stronger than the pleasure of financial gain (0.687) and investors feel nervous when price drops in their stock (0.607). Status quo bias consist of two variables viz., while investors consider changing their portfolio, investors analyze varied opinion, but end up without much change (0.770) and Even though the market is beneficial, they are not ready to change the portfolio (0.611).

Mental accounting bias consist of three variables viz., investors concentrate on constructing their portfolios without looking at the market trend (0.671), they often segregate assets into safe investment portfolios (0.650) and they categorize their income into various accounts such as bill payments, rent, Provident Fund and savings into Equity (0.645). Framing bias is consist of two variables viz., they trust more on the advice from nationally advertised firms than from smaller local firms for investment (0.520) and While taking decision, they consider about the personal characteristics, norms, habits etc.(0.438). Hindsight bias consist of two variables viz, while reflecting

on past mistakes, they understand that it can be easily avoided (0.720) and investors make predictions based on the knowledge of the past information (0.618). Cognitive dissonance bias consist of two variables viz., Loss in investment decisions are prior to their knowledge (0.806) and their future predictions may go wrong due to decline in the market (0.711).

Conservatism bias consist of three variables viz, investors rarely change their portfolios (0.635), presently they are not ready to make any new changes in their portfolio (0.545) and they only invest in the familiar shares (0.502). Representativeness bias consist of two variables viz, they avoid investing in companies with a history of poor earnings (0.729) and they rely on past performance to buy/sell stocks as it performs well (0.531), Self confidence bias consist of two variables which includes investors believe gains in investment must be attributed to their competence (0.609) and their failed investments have often been the results of unfavourable circumstances (0.571). Illusion of control consist of two variables viz, investors will have a better outcome if they make their own trading choice (0.843), they have more control over their outcome of investment (0.683)

Investors Decision making is studied with 15 variables. The variables are grouped into 3 factors viz., Technical analysis, Fundamental analysis and Market psychology. Technical analysis consist of 4 variables i.e., investors watch daily price fluctuation (0.871), they use charts, patterns and trends (0.557), they use past price movements to predict future price (0.451), they do active trading volume/turnover (0.438). Fundamental analysis comprises of 6 variables i.e., investors rely on company's dividend ratio of the company (0.830), they trust on the management quality of the company (0.767), they look upon debt equity ratio of the company (0.728), they

depend on Government regulations/interventions (0.688), they see the returns on equity/investment (0.661), investors use company information, statement and financials (0.626). Market psychology consist of 5 variables viz, investors follow the recommendations of friends/ family/peers (0.686), in accordance with the news stories in the media (0.677), they rely on major institution and corporations currently buying the stocks of the company (0.674), based on rumours in the market (0.652), they follow recommendations/advice of professional investor/broker (0.591).

Confirmatory Factor Analysis was performed to validate the underlying

dimensions such as Awareness, Risk Perception, Behavioural factors and Decision making of Equity Investors. The construct (internal) validity of the instrument can be assessed based on convergent and discriminant validity. The factor loadings of the variables have been considered for assessing the Convergent validity separately for equity investors and prove adequate fit. To establish discriminant validity, divergence between dissimilar constructs was demonstrated. The validity of the research assessed on the dimensions viz., Awareness, Risk perception, Behavioural factors and Decision making of Equity investors.

Table 5.2: Inter construct correlation matrix and AVE of Equity Investors Awareness

	Media	Social learning	Financial awareness	Company information
Media	(0.626)			
Social learning	0.264	(0.504)		
Financial awareness	0.310	0.313	(0.541)	
Company information	0.162	0.248	0.221	(0.587)

From the above table, AVE and correlation among Equity Investor Awareness viz., Media, Social learning, Financial awareness, Company information are extracted.

Table 5.3: Inter construct correlation matrix and AVE of Equity Investors Risk Perception

	Precautious	Fear of loss	Courageous	Rational thinking
Precautious	(0.494)			
Fear of loss	0.139	(0.498)		
Courageous	0.068	0.330	(0.617)	
Rational thinking	0.385	0.119	0.042	(0.477)

From the above table, From the above table, AVE and correlation among Equity Investor Risk perception viz., Precautious, Fear of loss, Courageous and Rational thinking are extracted.

Table 5.4 Inter construct correlation matrix and AVE of Equity Investor Behaviour

	Anch	Loss	Stat	Ment	Fram	Hind	Cogm	Conser	Repr	Overc	Illusi
--	------	------	------	------	------	------	------	--------	------	-------	--------

Anchor	(.540)										
Lossav	0.235	(.545)									
Status	0.033	0.067	(.549)								
Mental	0.012	0.081	0.240	(.477)							
Frami	0.105	0.213	0.035	0.177	(.546)						
Hindsig	0.295	0.262	0.008	0.056	0.170	(.548)					
Cognit	0.020	0.124	0.054	0.172	0.115	0.043	(.577)				
Conserv	0.074	0.171	0.002	0.131	0.127	0.100	0.219	(.439)			
Represe	0.132	0.097	0.097	0.010	0.133	0.217	0.064	0.374	(.540)		
Overco	0.042	0.175	0.132	0.163	0.221	0.014	0.032	0.206	0.125	(.552)	
Illusion	0.134	0.139	0.017	0.134	0.118	0.210	0.100	0.264	0.196	0.271	(.588)

From the above table, AVE and correlation among Equity Investor Behaviour viz., Anchoring, Loss aversion, Status quo, Mental accounting, Framing, Hindsight, Cognitive Dissonance, Conservatism, Representativeness, Overconfidence and Illusion of control are extracted.

Table :5.5 Inter construct correlation matrix and AVE of Equity Investors Decision making

	Technical	Fundamental	Market psychology
Technical	(0.481)		
Fundamental	0.027	(0.518)	
Market psychology	0.416	0.148	(0.471)

From the above table, AVE and correlation among Equity Investor Decision making viz., Technical analysis, Fundamental analysis and Market psychology are extracted. Hence all the diagonal elements for Equity Investor awareness, Risk perception, Behaviour and Decision making represents the Average variance extracted, whereas the off-diagonal elements represents the correlation among constructs. The correlation values between the constructs were found less than the Average variance extracted for a specific construct and the measures have adequate discriminant validity.

5.3 Model to understand the Relationship between Equity Investor Awareness, Risk perception, Behavioral factors on Decision making

The Structural equation modelling assesses the causal relationship among the dimensions viz., Awareness, Risk perception, behavioural factors and decision making of equity investors. The figure below gives the estimates of regression weights between the four dimensions.

Figure 1: Relationship Among Equity Investor Awareness, Risk perception, Behaviour, Decision making

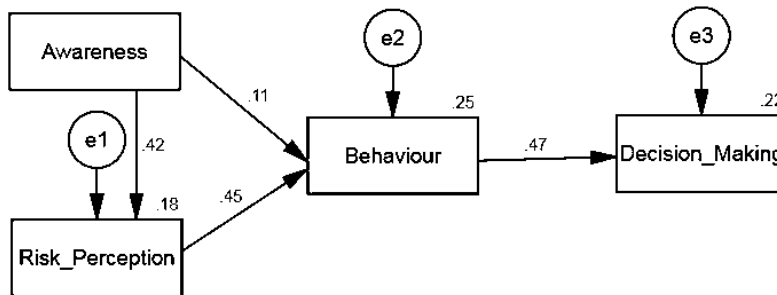


Table 5.6: Relationship Among Equity Investor Awareness, Risk perception, Behaviour and Decision making

Path/Hypothesis	UnStd Estimate	S.E	C.R.	Std Estimate	P
Risk_Perception<---Awareness(H ₀₃)	.401	.044	9.097	.421	***
Behaviour<---Awareness(H ₀₄)	.079	.035	2.257	.110	.024
Behaviour<---Risk_Perception(H ₀₅)	.337	.037	9.168	.446	***
Decision_Making<---Behaviour(H ₀₆)	.570	.055	10.317	.465	***

Table 5.6 shows the unstandardized coefficients and associated test statistics. The amount of change in the dependent mediating variable for each one unit change in the variable preceding it is symbolized by the Unstandardized Regression Coefficient. Unstandardized estimate, its standard error (S.E) and the estimate divided by the standard error is CR (critical Ratio). Under the column P, the probability value associated with the null hypothesis that the test zero is exhibited.

Table 5.7 Squared Multiple Correlation of Variables- Investors Risk Perception, Behavioural factors and Decision making

Dependent variables	Equity-Estimate	Commodity- Estimate
Risk Perception	0.177	0.109
Behaviour	0.252	0.164
Decision Making	0.217	0.124

The above table shows Squared multiple extent to which a measured variables variance is explained by a latent construct. It is the square of the indicators standardized loadings. Hence, the structural regression coefficients presented in the model were statistically significant. The structural model

correlation (SMC) value represents the fit is good with GFI (Goodness of fit index) = 0.92, CFI (Comparative fit index)= 0.95, NFI (Normative fit index) = 0.898, RMSEA (Root mean square error of approximation) = 0.06, CMIN = 128.589, P = 0.000. The results reveal that the application of each

dimension is appropriate in studying the behavioural factors in investor decision making. This implies that all hypothesis tested were supported by empirical data collected. From the above results, it is identified that behavioural factors have the highest positive impact on the investor decision making with regression estimate of 0.47. The Hypothesis H_4 is rejected leading to the conclusion that the Investors are more concerned with behavioural bias while investing in stock markets. Null hypothesis H_3 is rejected indicating that the equity investors risk perception is a key factor influencing the behaviour in investment decisions with a regression value of 0.45. Null hypothesis H_1 is rejected revealing that investor awareness have positive relationship with risk perception with regression estimate of 0.42, postulating that investors with more awareness on stock market periodically assess risk involved.. Null hypotheses H_2 and H_5 are rejected. The results reveals that Investor awareness influence Behavioural factors with regression weight 0.11 on investor decision making has least impact level. These indicate a strong predictive validity of the model for the surveyed data.

6. DISCUSSION AND CONCLUSION

The present study proves that equity investor behaviour gains significance in the investment decisions. The results reveal the determinants of variables viz., awareness, risk perception, behaviour and decision making. Investors collect and gather information for investing in the stock market through media and company information. Investors reveal courageous behaviour by depending on speculative stocks and by exhibiting willing to take more risk while making investment decisions. Behavioural

factors such as Anchoring, Status quo, Cognitive Dissonance, Illusion of control and Representativeness bias have more impact on investor decision making. Investors compare stock prices and justify their choice of investment, as they are prone to risk. They think about investing in various portfolio, but end up without making much change in their investment. They concentrate on constructing their portfolio without looking at the market trend. While reflecting on past mistakes, they understand it can be easily avoided. They avoid investing in companies with a history of poor earnings. They have an illusion that they have better outcome, it they make their own choice. At times, Investors believe loss in their investment is prior to their knowledge and future predictions about investments may go wrong due to decline in the market. Technical and Fundamental analysis play a major role in investor decision making. They watch price fluctuation and do active trading. Also investors depend on debt equity ratio and trust on management quality while making their investment decisions. The present study concludes that investor awareness, risk perception, behavioural factors, decision making of investors helps to understand the investment perspectives of individual investors especially in equity markets which paves way for the economic prospects. Every individual investor must identify and overcome the behavioural bias while investing and make wise decision making.

REFERENCES

1. Elke U. Weber, Ann-Renee Blais and Nancy E. Betz (2002), "A Domain Specific Risk Attitude Scale: Measuring Risk Perception and Risk Behaviours", *Journal of Behavioral Decision Making*, Vol. 15, No. 4, Pp. 263-290.

2. Luigi Guiso and Tullio Jappelli, (2004), "Awareness and Stock Market Participation, Centre for Studies in Economics and Finance", University of Salerno, Italy.
3. Lennart Sjöberg, Bjørg-Elin Moen, Torbjørn Rundmo (2004) "Explaining Risk Perception – An Evaluation of the Psychometric Paradigm in Risk Perception Research", Norwegian University of Science and Technology, Norway.
4. Gong-Meng Chen, Kenneth A. Kim, John R. Nofsinger, Oliver M. Rui, (2005), "Behavior and Performance of Emerging Market Investors: Evidence from China", URL: <http://211.167.92.69/cicf2006/cicf2006paper/20060104133427.pdf>
5. John Murungi Lintari, (2006), "Awareness, Trust and Stock Market Efficiency: The Case of Uganda Securities Market", Makerere University, Uganda.
6. Arvid O. I. Hoffman, Hersh Shefrin, Joost M. E. Pennings, (2008), "Behavioral Portfolio Analysis of Individual Investors", URL: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1629786.
7. Micheal M. Pompian, (2008), "Using Behavioral Investor Types to Build Better Relationship with Your Clients", Journal of Financial Planning, Vol. 21, No. 10, Pp. 64.
8. Milan Lovric, Uzay Kaymak & Jaap Spronk, (2008), "A Conceptual Model of Investor Behavior", Erasmus Research Institute of Management, RSM Erasmus University, Netherlands.
9. Wong Wee Chun & Dr. Lia Ming Ming (2009), "Investor Behavior and Decision Making Style: A Malaysian Perspective", Banker's Journal Malaysia, No. 133, Pp. 3-13.
10. Barbara Wanyana, (2011), "Investor Awareness, Perceived Risk Attitude and Stock Market Investor Behavior: A Case of Uganda Securities Exchange", Makerere University Business school, Uganda.
11. Doan Thi Thu Ha & Le Phuoc Luong, (2011), "Behavioral Factors Influencing Individual Decision Making and Performance – A Survey at the Ho Chi Minh Stock Exchange", Umea School of Business, China.
12. Yu Je Lee, Gao-Liang Wang, Kae-Shuan Kao, Ching-Yaw Chen, Fong-Ping Zhu, (2011), "The Investment Behavior, Decision Factor and Their Effects towards Investment Performance in the Taiwan Stock market", African Journal of Business Management, Vol. 5, No. 22, Pp. 9240-9248.
13. Lubina Riaz, Ahmed Imran Hunjra & Rauf-i-Azam, (2012), "Impact of Psychological Factors on Investment Decision Making Mediating by Risk Perception: A Conceptual Study", Middle-East Journal of Scientific Research, Vol. 12, No. 6, Pp. 789-795.
14. Khao Cuong Phan, Jian Zhou, (2014), Factors Influencing Individual Investor Behavior: An Empirical Study of the Vietnamese Stock Market, American Journal of Business and Management, Vol. 3, No. 2, Pp. 77-94.
15. World Federation of Exchanges and stock exchanges' websites & OECD Equity Market Review of Asia 2018