

Factors Affecting Investment Decision Making: Evidence from Equity Fund Managers and Individual Investors in Pakistan

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ABSTRACT

Traditional theories of finance assume that investors behave rationally in the stock market, but according to behavioral finance investors behave irrationally while making their investment decisions. Behavioral finance explains the effect of investor psychology on their investment decision making.

Purpose - The purpose of the study is to investigate the impact of behavioral factors such as heuristics, risk aversion, use of financial tools and firm-level corporate governance on investment decision making.

Design/Methodology/Approach— This study use questionnaire technique for primary data collection from equity fund managers and individuals who invested in commercial banks, insurance companies and stock exchanges of Pakistan. The study collected 100 responses from individuals and equity fund managers. To accomplish the objective we use correlation analysis and regression analysis technique.

Findings —The study concludes that Heuristics, Use of financial tools and Firm level corporate governance have positive and significant Impact on investment decision making, whereas Risk aversion has negative and significant impact on investment decision making. Moreover, all behavioral factors, firm level corporate and investment decision making have positive and significant relationship with each other. Stock exchanges and regulatory authorities may use these results to educate investors about behavioral factors. Findings of this research study may help to increase the investor's confidence.

KEYWORDS: Behavioral Factors, Investment Decision Making, Equity Fund Managers, Individual Investors.

JEL Classification: D03, G3

INTRODUCTION

Investment decision making is a challenging activity for investors, especially in the dynamic environment with multidimensional alternatives. Investment decisions cannot be made in a vacuum by depending on the personal resources and complex models. Investors must have to be vigilant and up to date to achieve the desired goals. Behavioral finance is the emerging field which can be helpful for investors to select better investment tools and to avoid repeating errors in future. Behavioral finance explains the effect of investor psychology on decision making of their investment.

Behavioral finance concentrates on irrational behavior of investor that has influence on investment decisions and prices of market.[17]Illustrates how investor behaves and how his behavior influences the financial markets. According to traditional financial market theories, market participants are rational. However, numerous studies reveal that investor behavior is not always rational, in fact sometimes it is systematically irrational. Now stock markets are turn into more unpredictable. The stock markets instability enhances the risk related to investment.

Efficient market hypothesis explain that share prices completely indicate all existing information. EMH is based on investor information and rationality.[16] define efficient market theory based on the concept that investors behave rationally they increase expected utility and quickly process all accessible information. Investor's perception fluctuates about return and risk of their investment even in the existence of efficient market hypothesis. Studies done by [6, 18] demonstrate investors utilize repeated patterns of irrational behavior and deviate from rationality. This deviation raise the risk related with investment and cause volatility in stock markets. In finance these changes are names as anomalies in financial market.

[7]Make important contribution with their prospect theory in decision making under uncertainty. In prospect theory they attempt to explore investor's psychological behavior. Prospect theory explains that when investors are

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risk averse they face gains and when they take more risk, they face losses. Now many investors invest in stock markets so the investors' behavior, attitude and psychology have impact on stock prices. Investors mostly do fault in their investment because of their psychological and behavioral biases. The understanding of corporate attributes is also important because investor's decision making is influenced by corporate governance at firm level. Firms with poor governance fail to attract investors.

Different studies investigate that risk aversion and different behavioral factors have impact on investment decision making but they did not explore that firm level corporate governance have effect on decision making. Investors' deviates from rationality their buying and selling behavior generates fluctuation in stock markets so the financial markets are becoming volatile and share prices fluctuate every day. By using traditional financial tools stock price movements cannot be judged. The main problem is that investors do not follow the traditional trends of decision making for their investment decisions and deviate from EMH. Investors do not think about the impact of behavioral factors on their investment decisions. So there is need to consider all these situations while making decisions and mitigate the systematic errors in investment decision making.

The core objective of this article is to investigate the effect of behavioral factors such as heuristics, risk aversion, use of financial tools and firm level corporate governance on investment decision making. Moreover the specific objectives of this article are:

- To check the relationship among behavioral factors and investment decision making.
- To check the relationship of firm level corporate governance with investment decision making.
- To check the impact of behavioral factors on investment decision making.
- To check the impact of firm level corporate governance on investment decision making.

This article will facilitate in recognizing the use of financial tools for investment decision making and will also help to explain and understand that how emotional and behavioral factors influence the investors decision making. The current study will help investors and financial practitioners to diminish and overcome the errors in their investment decision making based on behavioral factors, which could aid to better market stability. Regulatory bodies (SECP) can also use the results for making policies for stock market.

This research focuses on the following questions:

- Dose firm level corporate governance affects investment decision making?
- Dose behavioral factors influence investment decision making?
- Dose investors risk averse behavior affects the decision making of their investment?

LITERATURE REVIEW

Behavioral Factors Influencing Investment Decision Making

Investment decision making is very difficult task. According to [1] investors must keep themselves update in multidimensional fields to achieve their desired objective in business. According to most financial and economic theories individual act rationally and think about all accessible information for decision making of investment. But behavioral finance believes that investor act irrationally in stock market. [15] Said investor's psychology, behavioral biases and emotions lead to systematic error in the way in which they process their information. Studies done by [2, 7] also show that decisions of investors affected by behavioral, emotional and psychological factors.

The empirical findings of studies done by [5] shows that investors make poor trading and investing decisions because of behavioral biases. [14] Identified many different behavioral factors which have effect on investment decision making. However study done by [8] illustrate that behavioral factors have positive impact on investment decision making. According to [2] heuristics have more influence on investor decisions rather than prospect theory.

Heuristics Decision Process

Investors apply mental shortcuts for decision making rather than objectively reviewing the easily accessible information. Different methods that people use to reduce the effort related to their task called heuristics. [7] Exemplify that application of heuristics may cause poor decisions. Implementation of heuristics decisions cause due to shortage of time. The components of heuristics are (Gambler's fallacy, availability bias, anchoring representativeness and overconfidence).

Gambler's fallacy Bias

In gambler's fallacy, investors expect patterns to be more predictable then they are in reality, then based on those expected patterns they make investment decision. Gamblers' fallacy takes place when people improperly forecast that a trend would reverse subsequently leading to poor market returns. [13] Explain in their study that status quo investors adopt the previously selected pattern, even if it not the most favorable option.

Availability Bias

In Availability, bias decision makers rely on easily available information rather than inspecting other alternatives and procedures. Availability bias referred to as when investors give excessive importance to effortlessly obtainable information.

Anchoring Bias

Anchoring is a common human propensity to rely too heavily on one attribute or piece of information when making decisions. Anchoring refers to people's propensity to make estimates about the chances of uncertain events. Anchoring occur when a value scale is set by current observations.

Representativeness Bias

Representativeness is also a type of heuristics which can be defined as when investors seek to purchase newly issued stocks and avoid to those stocks which performed badly in past. This behavior show or explain the overreaction of investor.

Overconfidence Bias

Mostly Investors perceive that they are better than other investors and this propensity to suppose can cause overconfidence bias that can eventually direct to excessive trading. Studies done by [16] explains in overconfidence investor overestimate their predictive skills, analysts become overconfident when they have some knowledge in particular areas. [18]Elucidate that excessive trading leads to overconfidence. Heuristics use in investment decision making save time, cost and effort but it might cause errors and desirable results might not be achieved.

Risk Aversion

Risk aversion is individual desire to avoid uncertainty. Risk aversion has an effect on investment decisions under uncertainty. According to [3] risk aversion has negative impact on trading activity of investors and on their portfolio size. [10] argues that risk aversion directly influence investor wealth by generally making bad decision According to early study individuals are rational, risk averse, and try to maximize the wealth under difficult alternatives. [7]Suggest that investors are irrational and they are not consistent in risky choices. Investors perceive risk after determining it, their risk seeking and risk aversion changes in diverse situations. On the basis of the above literature, in financial decision making investors do not emerge to be steady towards risk aversion.

Corporate Governance

A system in which companies or organizations are directed and controlled is called corporate governance. Weak governance leads to ruinous consequences which consequently increase the expenditure of the company. Corporations who have poor governance are unable to attract investors. [4] Describe that the better developed systems will help to achieve the objectives of the corporation. Past studies tell us about the inclination of investors about corporate governance at firm level, which perhaps have effect on their decision making about investment. The present study follows [4] aspect of assessing firm level corporate governance which includes Transparency, Fairness, Discipline, Independence Responsibility, Accountability and Social Awareness. Corporate governance system plays a role towards the value of the organization.

Use of Financial Tools

Financial professional apply various methods and tools to attain better outcome in their investment decisions. Commonly used tools are capital asset pricing model, technical and fundamental analysis. Practitioners use these tools to measure return and risk in stock market. Fundamental analysis evaluates the economic environment, company performance and industry performance before making an investment decision. According to [12] Investment professionals use a verity of practices for market anticipation across different time horizon.

Research work done by [9] demonstrates that it is vital for the investor to do both fundamental and technical analysis for deciding the suitable stock. [6]Explore that all users mostly rely on technical and fundamental analysis and less rely on portfolio analysis. Considering the whole literature, it is obvious that professional investors make wide use of techniques and methods that diverge from those projected by academics. However technical and fundamental analysis might still lead in various financial markets, the present study attempts to investigate this issue.

THEORETICAL FRAMEWORK

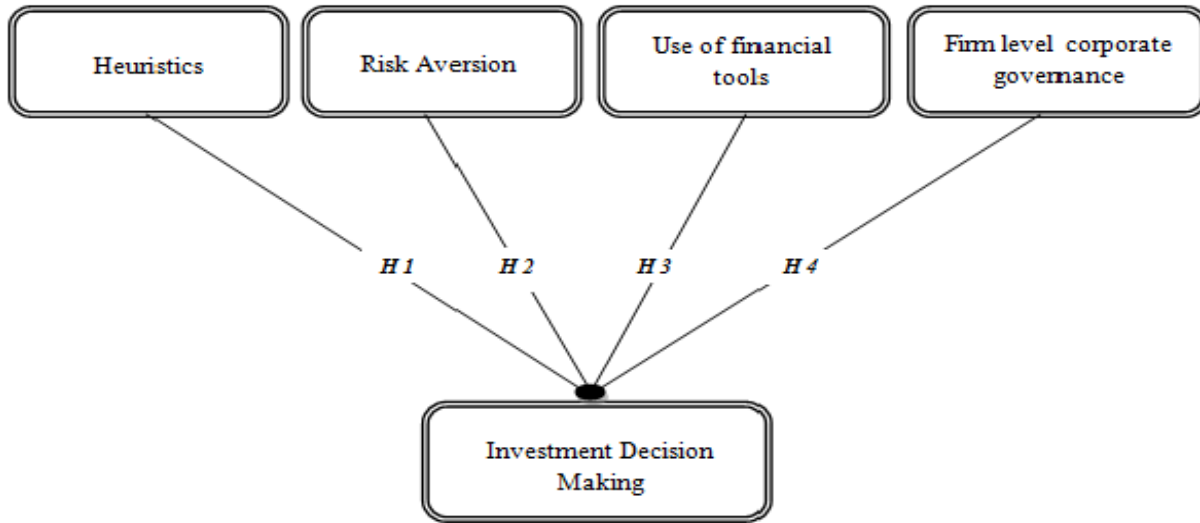


Figure 1: Schematic diagram for the theoretical framework of the selected variables

The above figure 1 shows the projected research model with dependent and independent variables of the study. The model is originally developed by [8]. The dependent variable is investment decision making, whereas the independent variables are heuristics, risk aversion, use of financial tools, and firm level corporate governance. Decision making is affected by all these factors. According to different studies these behavioral factors have positive and significant relation with investment decision making. The following hypotheses are developed from the above literature:

RESEARCH HYPOTHESES

- H1: There is positive and significant effect of heuristics on decision making of investment.
 H2: Risk aversion has negative and significant impact on investment decision making.
 H3: Use of financial tool positively and significantly affects the investment decision making.
 H4: Firm level corporate governance positively and significantly affect investment decision making.

RESEARCH METHODOLOGY

The population of the study comprised on individual investors and equity fund managers of financial institutions that invested in stock exchange; it covers managers of investment banks, insurance companies, equity investment companies, commercial banks and mutual fund. In this research we used stratified random sampling technique. The questionnaire technique was used for the collection of primary data from equity fund managers or Individual investors from different cities like Islamabad, Faisalabad, Karachi and Toba Tek Singh. The sample used for analysis was one hundred and twenty (120). However, in overall total 100 filled questionnaires were collected from the above mentioned sectors. The survey was directed in 3 sectors i.e. insurance companies, commercial banks and equity investment companies owing to homogenous attributes of respondents. The variables items were measured by a 5point like scale, where 5 denote 'Always', 4 represent 'Very Often', 3 refer to 'Sometimes', 2 signify 'Rarely' and 1 indicates 'Never'. The Frequencies test for respondents groups is shown below.

Table 1: Frequencies Test

| Organizations | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------------------|-----------|---------|---------------|--------------------|
| Banks | 24 | 24.0 | 24.0 | 24.0 |
| Insurance Company | 39 | 39.0 | 39.0 | 63.0 |
| Equity Investment Company | 30 | 30.0 | 30.0 | 93.0 |
| Individual | 7 | 7.0 | 7.0 | 100.0 |
| Total | 100 | 100.0 | 100.0 | |

Total 100 observations collected from the four major groups. 24% of the respondents belonged to banking section, 39% respondents belonged to insurance companies, 30% respondent belonged to equity investment companies and 7% respondent belonged to individuals.

Reliability Test

In this research the data were analyzed by using the SPSS software. Table 4 shows the Cronbach's Alpha which represent the reliability (alpha) of gathered data of variables. By applying the Cronbach's Alpha the internal consistency was tested of multi-item scales.

Table 2: Cronbach's Alpha (N=100)

| Variables | Cronbach's Alpha Value |
|------------------------|------------------------|
| Heuristics | 0.865 |
| Risk Aversion | 0.432 |
| Use of Financial Tools | 0.918 |
| Corporate Governance | 0.922 |
| Investment Decision | 0.941 |

The Cronbach's Alpha for heuristic is 0.865 which is larger than 0.5 the minimum accepted value. The Cronbach's Alpha for Risk Aversion is 0.432 which is little bit lower than 0.5 the minimum accepted value its due to the difference in attitude towards risk sensitivity of investors. The Cronbach's Alpha for Use of Financial Tools is 0.918 which is greater than 0.5 the standard value. The Cronbach's Alpha for Corporate Governance is 0.922 which is superior than 0.5 accepted value. The Cronbach's Alpha for Investment Decision is 0.941 which is greater than 0.5 the standard value.

RESULTS AND DISCUSSIONS

The current study analyzes the behavioral factors impact on decision making of investment. It is an effort to encapsulate the decision making of those investors who invested in stock exchanges of Pakistan. Moreover, the sectorial analysis is done to examine the Firm level corporate governance and use of financial tools impact on investment decision making. The descriptive statistics, ANOVA, regression and correlation analysis are appended below.

Descriptive Statistics

Descriptive statistics provide quantitative synopsis of all independent or dependent variables. Table 5.1 shows the values of measures of variability (minimum, maximum, and standard deviation), measure of central tendency (mean), skewness and kurtosis show the data normality.

Table 3: Descriptive Statistics

| | N | Range | Minimum | Maximum | Mean | Std. Deviation | Variance | Skewness | Kurtosis |
|----------------------------|-----|-------|---------|---------|--------|----------------|----------|----------|----------|
| Heuristics | 100 | 3.43 | 1.57 | 5.00 | 3.7114 | .79058 | .625 | -.436 | -.199 |
| Risk Aversion | 100 | 12.75 | 1.75 | 14.50 | 3.6775 | 1.41702 | 2.008 | 4.449 | 33.832 |
| Use of Financial tools | 100 | 4.00 | 1.00 | 5.00 | 3.7875 | .91175 | .831 | -.663 | -.121 |
| Corporate Governance | 99 | 2.80 | 2.00 | 4.80 | 3.6855 | .79551 | .633 | -.664 | -.479 |
| Investment Decision Making | 100 | 3.71 | 1.29 | 5.00 | 3.7743 | .85430 | .730 | -.474 | -.377 |

Correlation Analysis

Correlation analysis is a technique used to find the relationship between two variables. Table no 5 (Correlation Test) shows the correlation matrix of heuristics, risk aversion, firm level corporate governance and use of financial tools, with investment decision making in equity investment corporations strata where the sample size was one hundred (100). This correlation matrix describes the relationship among all the variables. This correlation matrix signifies that all variables are significant at sig value 0.01.

Table 5: Correlation Test

| Variables | Heuristics | Risk aversion | Firm level corporate governance | Investment decision making | Use of financial tools |
|---------------------------------|------------|---------------|---------------------------------|----------------------------|------------------------|
| Heuristics | 1 | | | | |
| Risk aversion | .481** | 1 | | | |
| Firm level corporate governance | .720** | .510** | 1 | | |
| Investment decision making | .748** | .334** | .716** | 1 | |
| Use of financial tools | .785** | .504** | .818** | .770** | 1 |

Correlation is significant at the 0.01 level (2-tailed).

The results in the table show the level of co-relational significance between dependent and four independent variables by bridging coefficient values of Pearson. Heuristics correlation value is 0.748 which show positive and significant relationship with investment decision making at 0.01 significant levels. Risk aversion is also significantly correlated with investment decision making by having value 0.334. The correlation value of firm level corporate governance is 0.716 which depicts the significant relationship with investment decision making. The figure of coefficient of correlation of use of financial tools is 0.770 which show significant and positive relationship with investment decision making. The results have shown that investment decision making is highly dependent on all the four independent variables. While the relationship among the independent and dependent variables are significantly and positively correlated with each other as shown in table.

Regression Analysis

The regression coefficient is the slope of the line of the regression equation. Table 6 shows the regression coefficient results of investment decision making.

Table 6: Regression Analysis

| | (β) | Std. Error | t | Sig. | R Square | ¹ F Statistics | Durbin-Watson |
|------------------------|-------------|------------|--------|------|----------|---------------------------|---------------|
| (Constant) | | .261 | 1.673 | .098 | .669 | 47.490 | 2.010 |
| Heuristics | .358 | .107 | 3.633 | .000 | | | |
| Risk Aversion | -.143 | .042 | -2.033 | .045 | | | |
| Use of Financial Tools | .377 | .111 | 3.173 | .002 | | | |
| Corporate Governance | .223 | .116 | 2.073 | .041 | | | |

According to the results shown in table 5.5, it concludes that the model is significant because all the P values of variables are < 0.05 . Here the R square value is 0.669 which means that all independent variables bring 66.9% variation in dependent variable and is 66.9 % best fitted. F value which is associated with P value is (47.490) indicate that independent variable moderately explain variation in the dependent variable. The ²Durbin Watson value is $2.010 < 3$ which describe that the regression model has not the problem of auto correlation because the error terms are independent.

The regression coefficient (β) of heuristics is .358; p value is 0.000 and t value 3.633 represent that heuristic has positive and significant impact on investment decision making. The previous studies of [1-2, 8] examine the relationship and impact of heuristics on investment decision making. According to the findings of these studies heuristic positively affects the decision making and our results are in line with these studies.

The regression coefficient of risk aversion is -.143, p value 0.045 and t value -2.033 exhibits that risk aversion has negative impact on investment decision making and this significantly affects the model. It means that when risk aversion increase then investment decision making becomes more critical or crucial for investors and their decision making ability will be affected. [3] Said risk aversion has negative impact on investors trading activity and on the size of their portfolio. According to [10] risk aversion directly affects wealth of investor by producing bad decision making.

¹ F value should be > 0.05

² Durbin Watson value should be < 3

The (β) value of use of financial tools is .377, p value 0.002 and t value 3.173 depict that use of financial tools positively and significantly affect the investment decision making, which proves the application of financial tools in investment decision making. Our results are matched with the studies done by [2, 6, 8, 12] they demonstrate that all investors use financial tools or fundamental analysis in their decision making.

Furthermore, corporate governance (β) value is .223, p value 0.041, t value 2.073 illustrates that firm level corporate governance has positive and significant impact on investment decision making. Our results are in line with studies conducted by [8, 11] they exhibit that corporate governance of firm has positive or significant impact on decision making of investment. All independent variables demonstrate significant impact on the dependent variable but with diverse variation. The results validate all hypotheses H1, H2, H3 & H4.

CONCLUSION AND POLICY IMPLICATIONS

Conclusion

This research study concludes that decision making process of investor is affected by many behavioral factors. These behavioral factors impact on decision making is vary to different degrees. The current study also checks the relationship of investment decision making with behavioral factors (heuristics, risk aversion, use of financial tools) and firm level corporate governance. The response from the sample present that all the behavioral factors and firm-level corporate governance make influence and contributing towards the decision making process of investors.

The study divulge that risk aversion have significant role in decision making, every investor expose to risk according to the strategy of their corporation and mostly fund managers have anxious behavior regarding to risk. Heuristics also play vital role or have influence on decision making; it is a very important factor. Firm-level corporate governance and use of financial tools are very important determinant of decision making of investors. In this research we also observe the deviation from the efficient market hypothesis owing to behavioral factors. Most of the findings of our study are consistent with studies done in the past by other researchers.

The study makes some suggestions for equity fund managers or individual investors to make improvement in their investing activity by educating themselves about behavioral factors that make influence on their decision making and cause to their irrational behavior. This could help investors in diminishing the uncertainty in their decision making of investment and may help them in uplifting their confidence. This may cause to raise their profits and market efficiency.

Practical Implications & Future Directions

This research will be beneficial for financial professionals, regulatory authorities or investment advisors so they can understand or focus on those behavioral factors that cause volatility in stock market. This study will help them to understand the relationship and impact of Corporate Governance on decision making and investor's perception toward risk.

The present research is based on investment decision making, firm level corporate governance and three behavioral factors; we can conduct future research on other behavioral factors like issues of knowledge, over and under reaction, mental accounting, herd behavior and demographics to better understand the behavior of investor. The respondents of the present research study are individual investors, banks, insurance companies and equity investment companies, in further research the study may include other respondents like non-profit organizations, group of investors and investment firms.

REFERENCES

1. Kannadhasan, M. 2010. Role of behavioral finance in investment decisions. *Journal of behavioral finance*, 1-7.
2. Waweru, N, M., Munyoki, E., & Uliana, E. 2008. The effects of behavioral factors in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange. *International Journal of Business and Emerging Markets*, 1(1), 24-41.
3. Michailova, J. 2010. Overconfidence, risk aversion and (economic) behavior of individual traders in experimental asset markets, 1-50.
4. Klapper, F, L., & Love, I. 2004. Corporate governance, investor protection, and performance in emerging markets. *Journal of Corporate Finance*, 703 – 728.
5. Chen, M, G., Kim, A, K., Nofsinger, R, J., & Rui, M, O. 2005. Behavior and performance of emerging market investors: Evidence from China, 1-29.

6. Maditinos, I, D., SJD, S, Z., & Theriou, G, N. 2006. Users' Perceptions and the Use of Fundamental and Technical Analyses in the Athens Stock Exchange. *AFFI06*, 1-5.
7. Kahneman, D., & Tversky, A. 1979. Prospect theory: an analysis of decision-making under risk, *Econometrica*. 47(2), 263–291.
8. Hunjra, I, A., Rehman, K., & Qureshi, A, S. 2012. Factors Affecting Investment Decision Making of Equity Fund Managers. *19* (10), 280-291.
9. A, S. 2013. A study on fundamental and technical analysis. *International Journal of Marketing, Financial Services & Management Research*. 2(5), 44-59.
10. Odean, T.1998, Do investors trade too much? *American Economic Review*, 89(5), 1279–1298.
11. Mc Cahery, A, J., Zacharias, S., and Laura, S. 2011, Behind the Scenes: The Corporate Governance Preferences of Institutional Investors, *Working Paper, and University of Amsterdam*. 1-59.
12. Lui, Y, H., and Mole, D. 1998, The use of fundamental and technical analyses by foreign exchange dealers: Hong Kong evidence” *Journal of International Money and Finance*, 17 (3), 535-45.
13. Kempf, A., and Ruenzi, S. 2005, Status Quo Bias and the Number of Alternatives- An Empirical Illustration from the Mutual Fund Industry, *Journal of Behavioral Finance*, 7 (4), 204 – 213.
14. Ricciardi, V., and Simon, K.H. 2000, What is Behavioral Finance?, *Business, Education and Technology Journal*,1-9.
15. Pavabutr P 2002, “Investor Behavior and Asset Prices”, Sangvien Conference.
16. Shiller, R. 1998, Human behavior and the efficiency of the financial system, *National Bureau of Economic Research*, working paper n° w 6375.
17. Kim, A, K., and Nofsinger, R, J. 2008, Behavioral finance in Asia, *Pacific-Basin Finance Journal*, 16, 1-7.
18. Evans, D, A. 2006, Subject perceptions of confidence and predictive validity in financial cues, *Journal of behavioral Finance*, 7(1), 12–28.