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ESSENCE OF RATIONAL INVESTMENT IN EQUITY MARKET: AN EMPIRICAL STUDY

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Abstract: *Behavioural finance deals with individual investor behaviour and way of gathering information about the market and reciprocates the investment. In addition, it focuses application of psychological and financial implications. The study considers the essence of rational investment decision making behaviour of investors and to determine demographic, psychological, socio-economic variables how influencing individual investors' investment rational on equity market in Chennai. The study fundamentally depends on primary data collected from 114 individual investors in Chennai. Respondents were chosen using convenient sampling technique. A structured questionnaire containing 26 objective oriented statements ranked on five point Likert scale which is used to bring out responses from individual investors. Regression analysis and ANOVA is used to achieve the objectives of research. The result indicated that a significant relationship between investment rational and demographic, psychological, socio-economic variables. Further it is attempted that the psychological variables is the most influencing factor in explaining investors intentions to invest in the equity markets. The result also revealed that a significant relationship between investment rational and investment performance of individual investors.*

Keywords: *Behavioural finance, Rational Investment, Individual Investors, Investment Performance*

JEL: Classifications: *G02; G10; G11; G19*

1. INTRODUCTION

In present study researcher makes to attempt that Behavioural finance research that to how psychological factors affecting individual investors in equity market investments. Investors need to aware about the fear, over confidence and emotion. Investors one who things that know everything they might fall down in the basic norms applying in the stock market. It is very important to know that proactive and reactive of the investment in the equity market. In addition to that investors watch day to day activities in the stock market. The bottom line remains that smart investors are making investment very successful and unemotional way of investment in the

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equity market. Rational investors run on its own set of rules and dynamics. The individual investor to be successful it is very important to adhere to a disciplined approach, ignore emotions and other idiosyncrasies of human behaviour and stick to practical decisions based on actual knowledge. At the end of the day the stock market is for the people, by the people and of the people and it becomes imperative for people to be aware that behaviour has a big part to play in the success or failure as an investor. Behavioural finance is a new paradigm of finance theory, which seeks to understand and predict systematic financial market implications of psychological decision-making **(Olsen, 1988**). By understanding the human behaviour and psychological mechanisms involved in financial decision making, standard finance models may be improved to better reflect and explain the reality in today's evolving markets. Different investors behave differently in different market situation before investing like return, flexibility and etc but the markets will face a question mark in knowing the pulse of an investor. So a study must be made on the demographics and psychographics of the investor such that the market can know the pulse of an investor and can act upon it.

Investor behaviour analysis deals with analyzing the behaviour of an investor based on his demographic and psychographic factors like age, gender and income groups. This state's what would be a preferred portfolio of an investor at a particular age. This will be helpful to the stock brokers and portfolio managers so that they can offer better portfolios to their investors. This needs better insight, and understanding of human nature in the existing global perspective, plus development of fine skills and ability to get best out of investments. In addition, investors have to develop positive vision, foresight, perseverance and drive. Every investor differs from others in all aspects due to various demographic factors like socio-economic background, educational attainment level, age, race and sex. The most crucial challenge faced by the investors is in the area of investment decisions. An optimum investment decision plays an active role and is a significant consideration According to the **prospect theory**; psychological factors of investors will drive their actual decision-making process to deviate from rationality, which is continued to **Simon's (1957)** argument of bounded rationality. However sometimes emotions and psyche influence their decisions, causing them to behave in an irrational way.

Behavioural Finance provides the explanation for this phenomenon. Behavioural finance is an emerging field that combines the Behavioural or Psychological aspects with conventional economic and financial theories to provide explanation of why people make irrational financial decisions **(Phung, 2008).** Rational investors were likely to obtain information regarding the market and studied stock market progressive as well as behaviour of other investors. Providing information to investors did not turn into a profit unless the information was understood. Besides, the timing and delivery of information about investment performance had a dramatic effect on how clients viewed their progresses **(Hughes, 2008). Fama (1965**) suggested that no one can continuously defeat the market to earn the excess profits in an efficient financial market, where the information has been exposed completely. Additionally, most rational investors can immediately and independently reflect the market information to maximize profits. It is to be noted that there are many studies conducted in different countries including India, but to the best of researcher's knowledge, a comprehensive study covering Chennai has not been made. Further a study of this nature should be conducted at periodical interval as the investment rationale keeps changing. Hence, this study attempts to find out the factors influencing the essence of rational investment on equity shares in Chennai.

2. LITERATURE REVIEW

This section presents the review of some of the major previous studies conducted in India and abroad in the domain of rational investment in stock market that would provide some useful insights in to the study. **Md. Al-Mamun (2012)** Found that a complete absence of the assumption of rationality or irrationality in number of critical issues amongst the investors. Therefore, the idea of truly Efficient Market Hypothesis (EMH) or mere psychologically driven behavioural finance should become less knowledgeable in understanding the agents of financial market i.e. the investors. Rather a combination of these two may give more insight in understanding the investor's behaviour in the financial market. **Abdel-Raheem F. Fares and Faisal G. Khamis (2011)** identified four behavioural factors that influenced investors' trading decisions. Investor's age, education, and his/her accessibility to the internet had a significant and positive effect on stock trading. The broker variable had a negative sign implying the need for professionally trained and experienced analysts to win clients' trust. **Dr. Duygu Firat & Dr. Sibel Fettahoglu, (2011)** Found that investors are affected by internal and external factors when making decisions. It is also examines the investors' profiles and to distinguish different demographic groups in terms of their perspective towards stock markets, other financial markets and socio – cultural factors. The other objective of the study is to gauge the importance scale of the factors that drive investors purchase behaviour in the decision-making process.**Huei-Wen Lin (2011)** identified that individual investors follow the rational decision-making process to select financial products. Namely, before investing in financial products, individual investors initially identify their investment demand, such as recognizing that investing in financial products may retain or increase their value, even able to achieve their financial goals and, then, start searching for external (e.g. the recommendation of kith and kin) and internal information (e.g. previous investment experience) and, finally, evaluating the alternatives or establishing the critical criteria for investment. **Azwadi Ali (2011)** found that a research model based on the concept of attitude as a mediator can be applied in the context of investors evaluating a company before deciding to invest in stocks of a company. Being human, investors are subject to emotion and this emotional effect can be stronger when companies are seen appealing to investors via relevant marketing strategies. **Jasim Y. Al-Ajmi (2011)** found that as investors, men have high propensity towards risk tolerance than women. Investors with better level of education and wealth are more likely to seek risk than less educated and less wealthy ones. The study also reports those investors' risk tolerance declines when they have more financial commitments as well as when they are approaching towards their retirement age or are retired. **George M. Korniotis and Alok Kumar (2011)** found that older and experienced investors are more likely to follow rule of thumb that reflects greater investment knowledge. However, older investors are less effective in applying their investment knowledge and exhibit worse investment skill, especially if they are less educated, earn lower income, and belong to minority racial/ethnic groups. Overall, the adverse effects of aging dominate the positive effects of experience. **E. Bennet, Dr. M. Selvam, Eva Ebenezer, V. Karpagam, S. Vanitha (2011)** found that there is no significant difference in fundamental and market factors, earning factors, decision making factors, industry related factors, corporate governance factors, positioning factors, image building factors, goodwill factors and industry competition factors between their educational qualification, occupation, income status in stock selection decision. But under gender, male and female had significant difference only in positioning factors and marital status, fundamental and market factors and corporate governance factors in stock selection decision. **Sanjay Kanti Das (2011)** reveals that insurance products still remains the most preferred investment avenues of the households. The results also highlight that certain factors like education level, awareness about the financial system, age of investors etc make significant impact while deciding on the avenues for investment. **E. Bennet, Dr. M. Selvam, Eva Ebenezer, V. Karpagam, S. Vanitha (2011)** found that there is no significant difference in fundamental and market factors, earning factors, decision making factors, industry related factors, corporate governance factors, positioning factors, image building factors, goodwill factors and industry competition factors between their educational qualification, occupation, income status in stock selection decision. But under gender, male and female had significant difference only in positioning factors and marital status, fundamental and market factors and corporate governance factors in stock selection decision. **Giridhari Mohanta and Dr. Sathya Swaroop Debasish(2011)**indicate that there is significant role of income and occupation in investment avenue selection by the male and female investors. Mostly male investors are found as active participants in avenue selection than female and generally they are sound in these two respects than female investors. **Amir Barnea, Henrik Cronqvist and Stephan Siege (2010)** found that a genetic factor explains about one third of the variance in stock market participation and asset allocation. Family environment has an effect on the behaviour of young individuals, but this effect is not long-lasting and disappears as an individual gains experience. **Syed Tabassum Sultana (2010)** study reveals that male investors dominate the investment market in India. Most of the investors possess higher education like graduation and above. Majority of the Investors belong to accountancy and related employment, non-financial management and some other occupations are very few. **Gaurav Kabra, Prashant Kumar Mishra and Manoj Kumar Dash (2010)** found that factors which affects individual investment decision and differences in the perception of Investors in the decision of investing on basis of age and on the basis of gender. **Al Anood Bin Kalli, Hussein A. Hassan Al-Tamimi (2009)**discovered that financial literacy level was affected by income level, education level and work place activity. High income respondents hold high educational degrees, and those who work in the field of finance/banking or investment had as expected higher financial literacy level than others. **Abhijeet Chandra(2009)** found that investors having high, high to moderate income and professional qualification are supposed to be more confident about their competence when it comes to trading in stock markets. It was observed that highly competent investors show more frequent trading behaviour. **Meenu Verma (2008)** identified that the investment choice depends on and is affected by the demographic variables such as gender, age, income, education, occupation as well as various personality types such as conservative, medium conservative, moderate, medium aggressive and aggressive. **Yao, R. and Hanna (2005)** focused on the effect of gender and marital status on financial risk tolerance. This study differentiated married males from married females. Risk tolerance is highest for single males, followed by married males, then unmarried females, then married females.

The earlier discussions coupled with an extensive literature review help the researcher identify the following research gaps:

(1) Identify and confirmation of Demographic factors prevailing among individual investors in equity market.

(2) Examination of the extent to which individual investors tend to be influenced by various psychological factors;

(3) Understanding of the individual investor rational behaviour may further lead to understand the market microstructure better and shift the focus from institution-centric approach to a balanced approach (where individual investors are also viewed as a significant player in equity market).

The framework of this study requires clear definitions in critical realist terms of the substance of analysis. Here researcher discusses the formal research objectives in order to fill the gaps identified from the detailed literature review. The present study bases its analysis with following objectives:

1. To identify the impact of family composition and biological make-up of an individual investor on the rational of equity investment.
2. To evaluate the effect of psychological factors like emotion and intuition on the rational of individual investors in equity investment.
3. To study the impact of life-style of individual investors on the rational of equity investment.

3. MATERIAL AND METHODS

This study is fundamentally based on primary data, which will be collected through a well designed and structured questionnaire. The data regarding essence of rational investment in equity market was collected from individual investors spread all over Chennai. The sample does not represent the country's entire population but only the universe of potential investors. The secondary data regarding equity market and investments would be collected from Madras Stock Exchange, PROWESS and CMIE data bases.

3.1. Research Sample and Data Collection

A sample of 114 individual investors is selected in Chennai Tamilnadu. Study the essence of rational investment in equity market. The questionnaires were then administered to those individual investors through various media to convenient to madras stock exchange. The questionnaires were distributed through personal contacts, e-mails, surface mails, and also through the participating the brokerage house in some cases. It is hereby important to mention that the present study adopted the convenient sampling technique in order to collect the survey responses. The choice of this approach can be explained by following three reasons. First, there are a large number of individual investors scattered across the coverage area of the survey carried out by the researcher. It is very difficult to get the exact number of individual investors. The empirical study has generated 26 objective oriented statements to determine the essence of rational investment in equity market. All the statements are evaluated using Five-point Likert scale ranging from 1 to 5, where 1 indicates strongly agree and 5 indicates strongly disagree. The study was carried out during the December 2014.

3.2. Reliability of Survey Instruments

The content validity of the survey instrument i.e. the questionnaire was verified by discussions with five experts, three academicians and two industry professionals, as it is suggested by **Devellis (1991).** Accordingly the researcher made changes in terms of eliminating, adding, or rewording some of the items included in the questionnaire. The criterion validity and construct validity were tested using correlation analysis.

3.3. Limitations of the Study

The limitations of the study are:

(a) The area covered under the study considered the sample respondents only from Chennai, India.

(b) The study has taken a few limited but representative individual investors in equity market in Chennai.

(c) As the nature of research being related to financial domain, there has been lesser disclosure from the part of the investor. But every effort was sincerely made to convince the respondent that the information given by them may be used for academic purpose.

4. RESULTS AND DISCUSSION

Impact of family composition and biological make-up of an individual investor on the rationality of equity investment.

H_o: Demographic variables do not influence investment rationality

Influence of Family Composition Vs Rationality - ANOVA

	Sum of Squares	*Degrees of freedom*	*Mean Square*	*F*	*Sig.*
Between Groups	22.932	62	.370	2.302	.001
Within Groups	8.354	52	.161		
Total	31.286	114			

Sources: Computed Primary data

The result of the ANOVA shows that there is statistically significant difference family composition and rationality. Calculated value of F is 2.302 which is less than the table value of 4.26 at 5% level with degrees of freedom being v_1 = 62 and v_2 52. Therefore null hypothesis rejected. This shows that family composition is factor influencing investment on rationality of individual investors in equity market.

H_o: rejected

Biological make-up Vs Rationality - ANOVA

	Sum of Squares	*Degrees of freedom*	*Mean Square*	*F*	*Sig.*
Between Groups	5.646	12	.470	1.872	.047
Within Groups	25.641	102	.251		
Total	31.286	114	7		

Sources: Computed Primary data

Biological make-up Vs Rationality table shows that calculated value of F is 1.872 which is less than the table value of 4.26 at 5% level with degrees of freedom being v_1 = 12 and v_2 102. Therefore null hypothesis rejected. The researcher may conclude that Biological make-up may influence investment rationality.

H_o: rejected

2. The effect of psychological factors like emotion and intuition on the rationality of individual investors in equity investment.

H_o: Psychological variables do not influence investment rationality

Psychology factors Vs Rationality - ANOVA

	Sum of Squares	*Degrees of freedom*	*Mean Square*	*F*	*Sig.*
Between Groups	10.286	20	.514	2.302	.004
Within Groups	21.000	94	.223		
Total	31.286	114			

Sources: Computed Primary data

Psychology factors Vs Rationality table shows that calculated value of F is 2.302 which is less than the table value of 4.26 at 5% level with degrees of freedom being $v_1 = 20$ and v_2 114. Therefore null hypothesis rejected. The researcher may conclude that Psychology factors such as emotion and intuition influence investment rationality.

H_o: rejected

The impact of life-style of individual investors on the rationality of equity investment.

Ho: Socio-economic variables do not influence investment rationality

Lifestyle component Vs Rationality - ANOVA

	Sum of Squares	*Degrees of freedom*	*Mean Square*	*F*	*Sig.*
Between Groups	7.282	17	.428	1.731	.048
Within Groups	24.005	97	.247		
Total	31.286	114			

Sources: Computed Primary data

Socio-economic variables Vs Rationality table shows that calculated value of F is 1.731 which is less than the table value of 4.26 at 5% level with degrees of freedom being $v_1 = 17$ and v_2 97. Therefore null hypothesis rejected. The researcher may conclude that Socio-economic variables such as lifestyle influence investment rationality.

H_o: rejected

Regression Model Summary

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
3	.478[c]	.228	.207	.46644

*Sources:*Computed Primary data

The above table shows that regression analysis summary of family composition, biological component and Socio-economic variables by rationality. The linear regression model summary indicates the R and R square value. The R value is 0. 478, which represented simple correlation, therefore, indicate a high degree of correlation. The R square value indicates how much of dependent variable, rationality can be explained by the independent variable. In this case, it means that 22.8% for the rationality.

ANOVA[d]

Model	*Sum of Squares*	*Degrees of freedom*	*Mean Square*	*F*	*Sig.*
Regression	7.136	3	2.379	10.933	.000[c]
Residual	24.150	111	.218		
Total	31.286	114			

*Sources:*Computed Primary data

The ANOVA table shows that the F value of 10.93 is significant at the 0.05 level. In the degrees of freedom from the table, the first number represents the number of independent variables (3), the second number (111) is the total number of complete responses for the variables in the equation (N), minus the number of independent variables (K) minus 1. (N-K-1) [115 – 3 – 1 = 111]. The F statistic produces (F = 23) is significant at the 0.05 level.

Coefficients

Model	*Unstandardized Coefficients*		*Standardized Coefficients*	*t*	*Sig.*
	B	*Std. Error*	*Beta*		
(Constant)	1.701	.198		8.570	.000
psychological	.116	.032	.314	3.589	.000
Socio economic	.078	.034	.206	2.301	.023
Biological makeup	.116	.054	.185	2.160	.033

a. Dependent Variable: rationale new

This table shows that which among three independent variables influences most variance in Rationality in equity markets investment. The beta column under standardized coefficient shows that the highest number in the beta is 0.314 for psychological variables, which is significant at the 0.05 level. This also shows that only independent variable that is significant. From the results of the multiple regression analysis, it is clear that the psychological variables is the most influencing factor in explaining investors intentions to invest in the equity markets.

4. DISCUSSION

The study empirically examined how investors while investing in the equity market behaves and their mind set towards investment. The influencing factors of investment rationality in the equity market in Chennai are demographic variables such as family composition, biological make-up of individual investors in equity market. Psychological factors such as Emotion and intuition, intention to invest in equity market. The socio-economic variable of investors like life style has statistically significant influence on investment rationality in equity market in Chennai. The most influencing factors of investment rationality, such as emotion and intuition also line with the prospect theory, psychological factors of investors will drive their actual decision-making process to deviate from rationality, which is continued to Simon's (1957) argument of bounded rationality. In addition the above by understanding of the fundamentals and behavioural factors also would be making better judgement and investment decisions.

5. CONCLUSIONS

This paper has reported that the results from interviews and questionnaires collection with individual investors in Chennai, Tamilnadu. The analysis indicated that a demographic, socio-economic, psychological variable determines the investment rational in equity market. The type of investment instrument selected by individual investor will depend on their investment rationality and irrationality. Furthermore the studies suggest that the family composition and biological make-up as important inputs that influence investment rationality in equity market, this study also support previous research is Huei-Wen Lin (2011) that concludes investors have kith and kin and first generation, second generation and third generation investor will depend on investment rationality. Investment decisions differ according to the choice problems is framed. The results of the study are very relevant to individual investors and investment managers, stock brokers and consultants. The Investment managers, stock brokers and consultants need to understand their clients in order to design appropriated instruments for that client. In addition to above the demographic, socio-economic, psychological variable determines the essence of rational investment in equity market.

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