

Analysis of Investment Behaviour with Reference to Retail Investors of Ranchi in Indian Stock Market

Doctoral Thesis submitted
In partial fulfillment of the requirements for the award of the degree of

DOCTOR OF PHILOSOPHY

In

MANAGEMENT

BY

**Jyoti Kumari
(13JU11300010)**

Under the guidance of

**Research Co-Supervisor
Dr. Sanjay Kumar Thakur
Head, Treasury Product Control
The Saudi Investment Bank,
Kingdom of Saudi Arabia**

**Research Supervisor
Dr. Sukanta Chandra Swain
Professor
ICFAI University Jharkhand,
Ranchi, India**



**ICFAI UNIVERSITY JHARKHAND
RANCHI**

January 2017

DECLARATION OF AUTHORSHIP

I declare that this research thesis titled “Analysis of Investment Behaviour with Reference to Retail Investors of Ranchi in Indian Stock Market”, submitted by me in partial fulfilment of the requirements for the award of the degree of Doctor of Philosophy in Management by the ICFAI University, Jharkhand, Ranchi is my own work. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text. I further state that I complied with the Plagiarism Guidelines of the University, while preparing the thesis.

Jyoti Kumari

Date

Place

ACKNOWLEDGEMENTS

I am thankful to the ICFAI University Jharkhand (IUJ) for enabling me pick up my academic pursuits. I thank Professor Sukanta Chandra Swain, Research Supervisor, for standing by me all through my efforts to steer towards meaningful research studies. His encouragement and guidance helped me reach the destination without getting lost. I am grateful to Dr. Sanjay Kumar Thakur, Co-Supervisor, for providing encouragement throughout the research period. His review comments added value to my studies. And Special Thanks to Prof. O R S Rao, Vice-Chancellor of IUJ for his persistent support and constructive feedback in keeping me on track of my Ph. D. journey. I am also thankful to Dr. K K Nag, Dr. Hari Haran and Dr. B M Singh for their moral support throughout. I am highly indebted to my colleagues for their assistance in collecting data. I am extremely thankful to my husband and son for their support in completing this research project.

Jyoti Kumari

Date

Place

THESIS COMPLETION CERTIFICATE

This is to certify that the thesis - Analysis of Investment Behaviour with Reference to Retail Investors of Ranchi in Indian Stock Market- byJyoti Kumari in partial fulfilment of the requirements for the award of the Degree of Doctor of Philosophy is an original work carried out by her under our joint guidance. It is certified that the work has not been submitted anywhere else for the award of any other Degree or Diploma of this or any other University. We also certify that she complied with the Plagiarism Guidelines of the University.

Dr. Sanjay Kumar Thakur
Head, Treasury Product Control
The Saudi Investment Bank,
Kingdom of Saudi Arabia

(Co-Supervisor)

Dr. Sukanta Chandra Swain
Professor
ICFAI University
Jharkhand,
Ranchi, India

(Supervisor)

Contents

| Particulars | | Page No. |
|---|--|----------|
| DECLARATION OF AUTHORSHIP | | 1 |
| ACKNOWLEDGEMENTS | | 2 |
| THESIS COMPLETION CERTIFICATE | | 3 |
| Abstract | | 9 |
| Chapter-1: Introduction | | 11-21 |
| 1.1 | Overview | 11 |
| 1.2 | Retail Investment | 12 |
| 1.3 | Research Motivation | 14 |
| 1.4 | Research Design | 16 |
| 1.5 | Contribution of Research | 18 |
| 1.6 | Outline of Thesis Chapters | 18 |
| Chapter-2: Background and Review of Literature | | 22-82 |
| 2.1 | Overview | 22 |
| 2.2 | Background | 22 |
| | 2.2.1. The BSE and NSE | 24 |
| | 2.2.2. SEBI (Securities and Exchange Board of India) | 25 |
| | 2.2.3. Who can invest in India? | 26 |
| | 2.2.4. Who can be Participants of Equity Market? | 26 |
| | 2.2.5. Depository | 26 |
| | 2.2.6. Demat Account (Dematerialized Account) | 27 |
| 2.3 | Review of Literature | 27 |
| Chapter-3: Objectives, Hypotheses and Methodology | | 83-94 |
| 3.1 | Overview | 83 |
| 3.2 | Problem Statement | 83 |
| 3.3 | Objectives | 86 |
| 3.4 | Hypotheses | 86 |
| | 3.4.1. Pertaining to Investment Pattern of Retail Investors | 86 |
| | 3.4.2. Pertaining to Ascertaining Risk Appetite Scores of the Respondents | 86 |
| | 3.4.3. Pertaining to Demographic Data vis-à-vis Risk Tolerance Capacity of the Respondents | 87 |
| | 3.4.4. Pertaining to Strategies for different Clusters of Respondents | 88 |
| | 3.4.5. Pertaining to Non-Investors' no preference to invest on equity | 89 |
| 3.5 | Methodology | 90 |
| | 3.5.1. For studying the trading pattern of retail investors | 91 |
| | 3.5.2. For developing risk appetite score for retail investors | 91 |

| | | |
|---|--|---------|
| | | |
| | 3.5.3. For Mapping Demographic Data vis-à-vis Risk Tolerance Capacity of the Respondents | 92 |
| | 3.5.4. Pertaining to Strategies for different Clusters of Respondents | 93 |
| | 3.5.5. Pertaining to Non-Investors' no preference to invest on equity | 93 |
| Chapter-4: Pilot Study | | 95-105 |
| 4.1. | Overview | 95 |
| 4.2 | Study on Investors | 95 |
| | 4.2.1. Analysis | 97 |
| | 4.2.2. Findings | 98 |
| | 4.2.3. Inference | 100 |
| | 4.2.4. Take Away from the Pilot Study | 101 |
| 4.3 | Study on Non-Investors | 101 |
| | 4.3.1. Prioritization of the Variables (that restrict a non-investor to invest) using Standardized Regression Coefficients | 102 |
| | 4.3.2. Reliability Statistics | 104 |
| | 4.3.3. Take Away from Pilot Study | 105 |
| Chapter-5: Pattern of Investment by Retail Investors | | 106-115 |
| 5.1 | Overview | 106 |
| 5.2 | Percentage of Income Spent on Investment | 106 |
| 5.3 | Avenues opted for Utilization of Saving Volume | 107 |
| 5.4 | Primary goal for the funds in Respondent's Investment Account | 108 |
| 5.5 | Main Objective of Investment | 109 |
| 5.6 | Preference of Respondents' Exposure amidst volatility of returns | 110 |
| 5.7 | Preferred Time Period for Investment | 111 |
| 5.8 | Frequency of Checking the Performance and Status of the Fund | 112 |
| 5.9 | Source of Collection of Information on Funds | 113 |
| 5.10 | Status of Hypothesis | 114 |
| Chapter-6: Developing Risk Appetite Scores for Retail Investors | | 116-134 |
| 6.1 | Overview | 116 |
| 6.2 | Computation of Risk Appetite Score | 116 |
| | 6.2.1. Question/Facet – 1 | 117 |
| | 6.2.2. Average Weighted RTS | 125 |
| 6.3 | Status of Hypothesis | 134 |
| Chapter-7: Risk Appetite Scores of Investors Vis-à-vis their Demographic Profiles | | 135-153 |
| 7.1 | Overview | 135 |
| 7.2 | RTSw Converted to 5-Point Rating Scale | 136 |
| 7.3 | Risk Appetite Scores of Investors Vis-à-vis their Gender | 144 |

| | | |
|---|--|---------|
| 7.4 | Risk Appetite Scores of Investors Vis-à-vis their Age-Group | 146 |
| 7.5 | Risk Appetite Scores of Investors Vis-à-vis their Educational Qualifications | 147 |
| 7.6 | Risk Appetite Scores of Investors Vis-à-vis No. of their Family Members | 149 |
| 7.7 | Risk Appetite Scores of Investors Vis-à-vis their Occupation | 150 |
| 7.8 | Risk Appetite Scores of Investors Vis-à-vis their Income | 151 |
| Chapter-8: Clustering of Investors & Strategies for Stretching Depth of Investment | | 154-162 |
| 8.1 | Overview | 154 |
| 8.2 | Clustering of Investors | 154 |
| | 8.2.1. Summary of Clustering | 156 |
| 8.3 | Cluster-Wise Strategies for Stretching Depth of Investment on Equity | 157 |
| Chapter-9: Prioritization of Variables for Non-Investors' Preference | | 163-171 |
| 9.1 | Overview | 163 |
| 9.2 | Prioritization of the Variables using Standardized Regression Coefficients | 163 |
| 9.3 | Impact of Barrier factors on not-investing on Equity (ANOVA) | 166 |
| 9.4 | Experts' Opinion on Restraining Factors of Retail Investment | 168 |
| 9.5 | Suggestions to Stretch the Incidence of Retail Investment in Indian Stock Market | 170 |
| Chapter-10: Summary & Conclusion | | 172-176 |
| 10.1 | Overview | 172 |
| 10.2 | Pertaining to Pattern of Investment by Investors | 172 |
| 10.3 | Pertaining to Risk Appetite Scores for Retail Investors | 173 |
| 10.4 | Prioritization of Variables for Non-Investors' Preference | 174 |
| 10.5 | Conclusions vis-à-vis Objectives | 174 |
| 10.6 | Societal Contribution of Research Findings | 176 |
| 10.7 | Limitation of the Study | 177 |
| 10.8 | Scope for Future Research | 177 |
| Bibliography | | 179-201 |
| Annexure-I: Publications/Presentations done out of this Research Work | | 202 |
| Annexure-II: Questionnaire for Investors | | 203 |
| Annexure-III: Questionnaire for Non-Investors | | 209 |
| Annexure-IV (Focused Group Discussion Format for Stretching the Depth of Investment in Indian Stock Market) | | 212 |
| Annexure-V (Focused Group Discussion Format Substantiating why non-investors don't prefer to invest) | | 214 |

List of Tables

| No. and Title of Table | Page No. |
|---|-----------------|
| Table 4.1. Risk Appetite Score of Pilot Respondent (Investor) No. 1 | 97 |
| Table: 4.2. Consolidated Risk Appetite Score Table of Pilot Study | 97 |
| Table: 4.3. Clusterization of (Pilot) Investors on the basis of Risk Appetite | 98 |
| Table: 4.4. Standardized Regression Coefficients (Pilot Study) | 103 |
| Table: 5.1. Percentage of Income Spent on Investment | 106 |
| Table: 5.2. Avenues opted for Utilization of Saving Volume | 107 |
| Table: 5.3 Primary goal for the funds in Respondent's Investment Account | 108 |
| Table: 5.4 Main Objective of Investment | 109 |
| Table: 5.5. Preference of Respondents' Exposure amidst volatility of returns | 110 |
| Table: 5.6. Preferred Time Period for Investment | 111 |
| Table: 5.7. Frequency of Checking the Performance and Status of the Fund | 112 |
| Table: 5.8. Source of Collection of Information on Funds | 113 |
| Table: 6.1. Computation of Weighted Risk Tolerance Score (RTSw) – For Facet/Question 1 | 117 |
| Table: 6.11 Average Weighted RTS | 126 |
| Table: 6.12 Frequency of Average Weighted RTS | 134 |
| Table: 7.1. RTSw to 5-point rating scale: Conversion Chart | 135 |
| Table: 7.2. RTSw Converted to 5-Point Scale | 136 |
| Table: 7.3. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Gender | 145 |
| Table: 7.4. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Age-Group | 146 |
| Table: 7.5. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Educational Qualifications | 148 |
| Table: 7.6. ANOVA on Risk Appetite Scores of Investors Vis-à-vis No. of their Family Members | 149 |
| Table: 7.7. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Occupation | 150 |
| Table: 7.8. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Income | 152 |

| | |
|--|-----|
| Table: 8.1. Average Weighted RTS of all 390 investors | 154 |
| Table: 8.2. Summary of Clustering | 156 |
| Table: 8.3. Cluster-wise Strategies to stretch the Depth of Investment | 157 |
| Table: 9.1. Standardized Regression Coefficients (For Non-Investors) | 165 |
| Table: 9.2. ANOVA output (Influence of Barrier Factors) | 168 |
| Table: 9.3. Factors for not-investing: Experts' Opinion | 169 |
| Table: 9.4. Factors for not-investing: Investors' Responses vis-à-vis Experts' Opinion | 169 |

List of Figures

| No. and Title of Figure | Page No. |
|---|-----------------|
| Figure: 5.1. Percentage of Income Spent on Investment | 107 |
| Figure: 5.2 Avenues opted for Utilization of Saving Volume | 108 |
| Figure: 5.3. Primary goal for the funds in Respondent's Investment Account | 109 |
| Figure: 5.4. Main Objective of Investment | 110 |
| Figure: 5.5. Preference of Respondents' Exposure amidst volatility of returns | 111 |
| Figure: 5.6. Preferred Time Period for Investment | 112 |
| Figure: 5.7. Frequency of Checking the Performance and Status of the Fund | 113 |
| Figure: 5.8. Source of Collection of Information on Funds | 114 |

ABSTRACT

Despite the fact that India's GDP has increased 5.5 times from \$414 billion in 2001 to \$2263.52 billion in 2016, the development of the capital market has been bumpy and its penetration has been inadequate. For instance, only 1.7% of Indian population is having Demat Accounts (a measure of direct participation in the stock market) as against 17.7% in USA, 16.4% in UK, and 9.4% in China. Although there is a surge in the number of Demat Accounts in India in recent years, the same trend has not been reflected in the number of active Accounts. Also, the total number of active stock exchanges across India has reduced from 16 at the start of the decade to four now, including two national exchanges, namely The National Stock Exchange of India (NSE) and Bombay Stock Exchange (BSE). Moreover, National Stock Exchange's share of total turnover across stock exchanges has surged dramatically from 61.53% in 2001-02 to 92.52% in 2014-15. Apart from NSE and BSE, the only two stock exchanges that are active are Calcutta Stock Exchange and Uttar Pradesh Exchange. Almost 80% of the NSE's turnover in India continues to come from the top five cities of Mumbai, Delhi, Kolkata, Ahmadabad and Chennai. In fact, Mumbai accounts for more than half the total NSE turnover at 55%; whereas Delhi, contributor of the

second largest turnover has a market share of 14.97%. In such context, it wouldn't be difficult to ascertain about the contribution of a city like Ranchi. However, India having one of the highest savings rate in the world, city like Ranchi has potential to increase its contribution in the Indian capital market. However, it is important to study thought processes and perceptions, challenges and bottlenecks i.e., investing behavior of the investors of this city. The Study is confined to the retail investors based at Ranchi (India). Mostly trading houses have Depository Participant (DP) accounts along with trading accounts. However, some other organizations like banks too provide DP account facility. Therefore, the study although mostly considers the retail investors trading through trading houses; it has also been extended to include retail investors of Indian stock market who don't trade through trading houses. On the basis of holistic behavior of the investors, risk tolerant score of each investor has been ascertained, clustered in three categories - Investors with High Risk Appetite, Investors with Moderate Risk Appetite and Investors with Low Risk Appetite; and suggestions are given to stretch the depth of investment. Moreover, in order to elongate the incidence of retail investment in Indian stock market, non-investors have also been studied to find why they don't go for investing on equity.

Key Words: Indian Stock Market, Retail Investors, Incidence, Depth, Risk Tolerant Score

Chapter 1

Introduction

1.1. Overview:

Stock market in India plays a very important role in the growth of industry and commerce of the country that eventually affects the economy of the country to a large extent. Because of this very reason not only government and industry but central bank of the country is also vigilant about its performance. Stock market has direct impact on society, since it provides a platform to large number of buyers and sellers to same juncture and helps them to satisfy their need. It helps public companies to raise funds for their expansion or settling down a new venture, which brings tremendous growth and development to the economy.

Over the past decade, India's GDP has almost tripled. This growth in the size of the country's economy has been more than complimented by a dramatic 8-fold surge in the market capitalization of the Indian companies. However, it does not mean that this manifold rise in the equity markets and its turnover has been consistent with the increase in the market development and penetration. The total number of active regional stock exchanges across India has come down from 16 at the start of the decade to four now, including two national exchanges. Apart from NSE and BSE, the only two stock exchanges that are active are Calcutta Stock Exchange and Uttar Pradesh Exchange. Almost 80% of the NSE's turnover in India continues to come from the top five cities of Mumbai, Delhi, Kolkata, Ahmadabad and Chennai. In fact, the financial capital of India – Mumbai – accounts for more than half the total NSE turnover at 55%; beating Delhi, the second largest turnover roller with a market share

of 14.97%, by a huge margin. The cities like Ranchi is not at all in picture but that does not mean that people over Ranchi don't have saving potential or don't have the interest to get more returns for their capital with little bit of risk undertaking. But the problem with the people over this type of cities is lack of proper information and deprivation in inculcating the habit of investing in stock market. That is the reason why this research project has been undertaken.

The facts about direct participation of Indian population in Indian stock reveal something peculiar as only 1.7% of Indian population is having Demat Accounts as against 17.7% in USA, 16.4% in UK, and 9.4% in China. Although there is a surge in the number of Demant Accounts in India in recent years, the same trend has not been reflected in the number of active Accounts. This fact is not so easy to digest as India has one of the highest savings rate in the Asian region and also in the world. At the same time, there are more educated Indians and ones who are aware of the equity markets.

1.2. Retail Investment:

A person who purchases securities with the expectation of financial returns is known as an investor. Purchase of securities by an individual for his or her own personal account rather than for an organization is known as retail investment. Typically, the retail investors trade in much smaller amounts than the institutional investors. A retail investor can buy securities directly from the companies issuing those (Through IPOs in Primary Capital Market) or can buy securities from the existing investors through

the Depositories, i.e., the stock markets (Secondary Capital Market). The scope of this study is confined to Secondary Capital Market.

An investor may be interpreted as an individual who; a) has purchased securities long back but not active now, b) has been trading securities regularly and c) has just recently purchased securities. For this Study, as referral sampling has been followed to pick up the investors, the respondents selected are active in investment in Indian Stock Market during Study period irrespective of whether they are first timer or regular investors.

There are four ways through which retail investment takes place. Those are;

- Individuals invest of their own
- Through retail brokers (act as per the direction of individual investors)
- Through Managed Accounts (whereby the account manager makes the buy and sell decisions for the individual), and
- Through Investment Clubs (groups of people who pool their savings to make investment).

While approaching the respondents of this Study, the first two ways of retail investment have been considered.

1.3. Research Motivation:

Although from various studies it has been established that percentage of population investing through shares are very less, but most of the people gets directly or indirectly affected by movement of stock prices. For example, suppose 'A' does not prefer investing directly into the stock market, but he has a private pension fund. His pension fund will get invested into stock market. And if market is seeing a downtrend for longer period, his pension fund will also get reduced. A genuine question crops up in anybody's mind that 'In spite of having high level of bearings with all facets of economic activities, why investment in Stock Markets of India is so low?' It is probably because of risk involved in such investment, ascertaining risk with no or little information and improper rating of risk tolerance capacity of retail investors. Each retail investor has his or her own tolerance of and attitude towards risk so that an investment considered 'high risk' by one investor may be considered 'low risk' by another investor. Thus assessing investors to their appropriate risk tolerance category and accordingly devising the most suitable strategies to them for investment in stock market has been emerged as the most transparently visible task of the researchers.

Investing in Indian Stock Market is indeed an untapped yet potential mode for retail investors. But owing to misconception and underrating of own risk tolerance capacity, retail investors of India basically prefer to put their investible amount on seemingly riskless modes of investment. In fact, investment in any mode - be it in real estate or in direct productive activities, involves some amount of risk. But for one or other reasons, investment in stock market has been tagged as the riskiest mode and

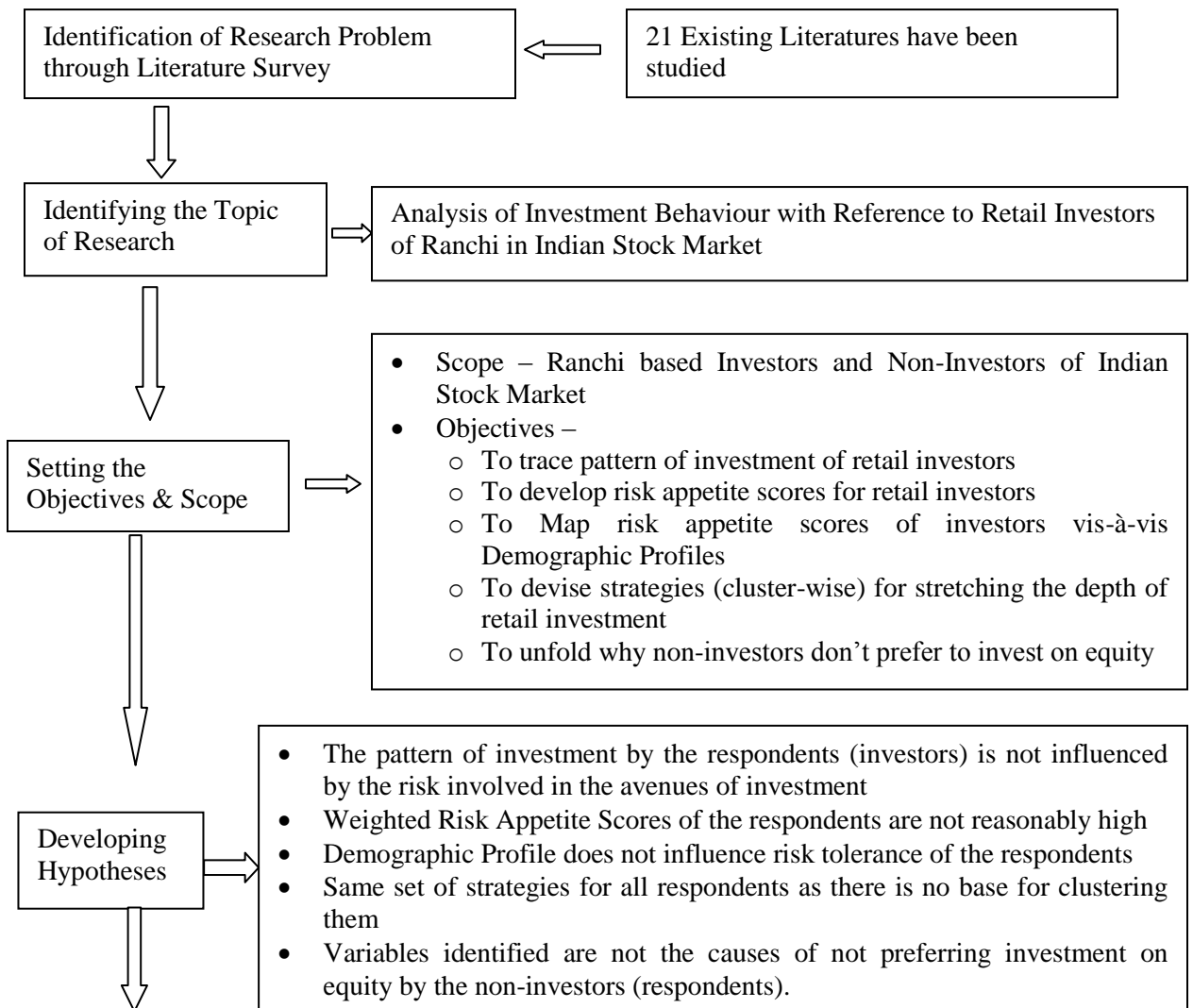
treated at par with gambling. More surprisingly, people who love to take risk in different facets of life, reject this mode of investment for the plea of greater risk involved in it. The question that haunts any researcher is - with investment potential and risk taking ability in non-financial facets, why people don't prefer to invest in stock market? This question is the foundation of this thesis. Those who invest also, amongst them, a very few do it regularly or intensively. That's why, as such the incidence of retail investment in Indian stock market is extremely low and depth of retail investment is beyond imagination as most of the investors are occasional investors and invest a meager amount of their investible fund in Indian stock market. This problem of dismal incidence and depth of retail investment in Indian stock market is acute in cities like Ranchi (India). While analyzing this problem, it is felt that people fail to estimate own risk taking ability appropriately. And hence through this research, risk appetite index of the investors have been ascertained and on the basis of their risk appetite score, they have been clustered so as to strategize for stretching the incidence of investment in Indian stock market. For the purpose, 390 retail investors based at Ranchi have been considered.

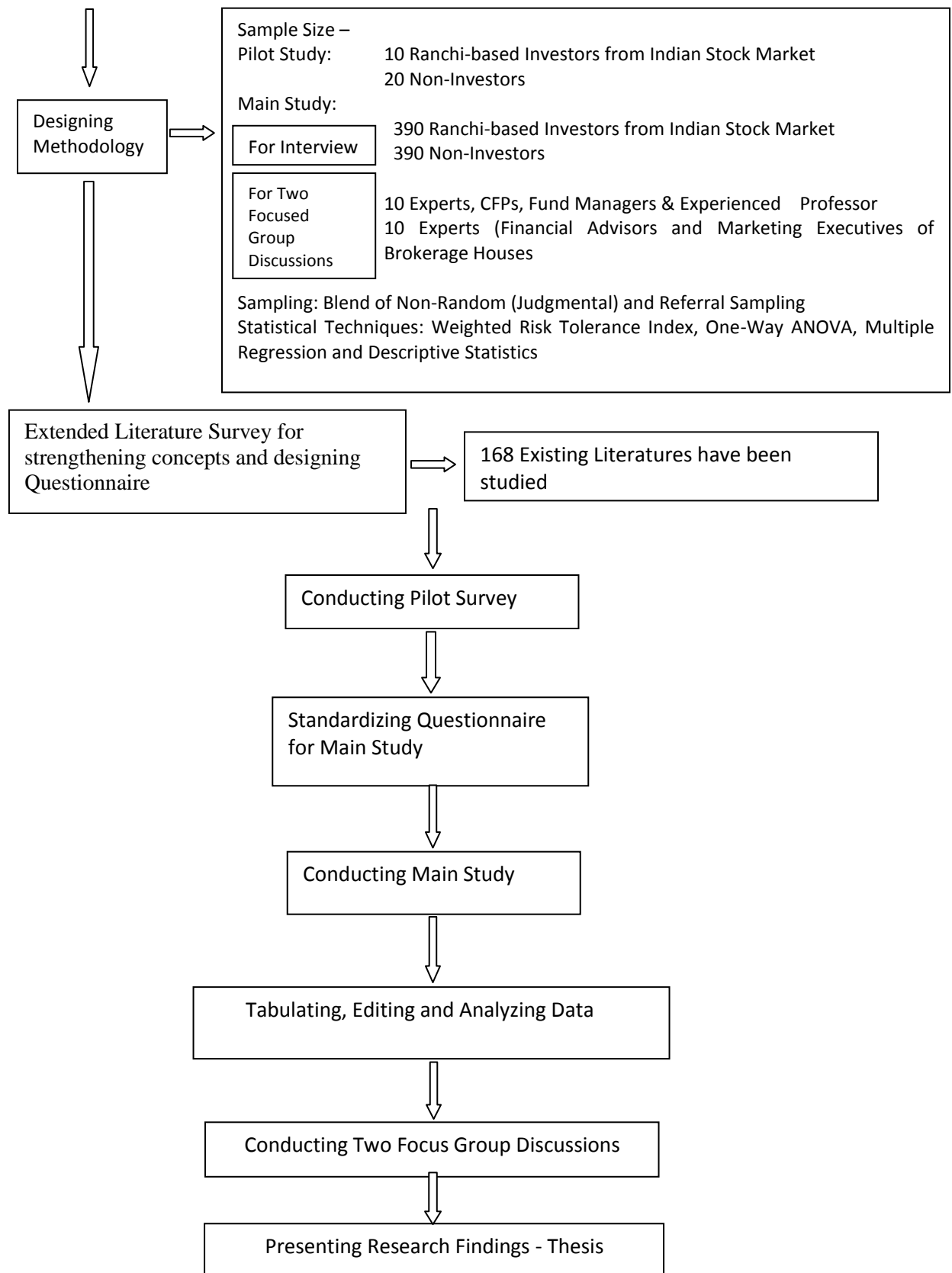
In spite of the possibility of appropriating huge returns through investments in Stock Market, around 1% of Indian Population is participating in Indian Stock Market for investment. It may, probably, because of risk involved in such investment, ascertaining risk with no or little information and improper rating of risk tolerance capacity of retail investors. India having one of the highest savings rate in the world, city like Ranchi has potential to increase its contribution in the Indian capital market.

But the reality is far behind the potential. Thus it has been important to study thought processes and perceptions, challenges and bottlenecks i.e., financial behavior of the surplus income holders of this city. For the purpose, 390 surplus income holders who have not invested in equity so far have been studied.

1.4. Research Design

Framework of this research is presented below.





1.5. Contribution of Research:

Each retail investor has his or her own tolerance of and attitude towards risk so that an investment considered ‘high risk’ by one investor may be considered ‘low risk’ by another investor. Thus assessing investors to their appropriate risk tolerance category and accordingly devising the most suitable strategies to them for investment in stock market has been emerged as the most transparently visible task of the researchers. The findings will help us to understand how risk appetite varies from one investor to another based on their earnings source/jobs/gender/age/marital status/educational background/social and economic strata. Clustering the investors on the basis of risk appetite score will help the broking houses tapping the situations devising customized strategies to augment business.

In fact, findings from the study of the investors will help in stretching the depth of equity investment and that from the study of non-investors will lend a hand in enhancing the incidence of investment on equity.

1.6. Outline of Thesis Chapters:

Chapter 2 of the thesis briefs the format of Indian capital market and highlights the functioning of Indian Stock Market, particularly, National Stock Exchange (NSE) and Bombay Stock Exchange (BSE), besides mentioning the role of the regulatory body, i.e., Securities and Exchange Board of India (SEBI). The second part of the chapter briefly explains the gist of existing relevant literatures surveyed that provides the base to identify gap and design the research framework.

Chapter 3 figures out the research gap on the basis of the review of existing literature presented in Chapter-2. To fill the gap in research, a set of Objectives have been set, followed by research Hypotheses. Appropriate Research Methodology has been designed as a framework to meet the set Objectives, (testing the Hypotheses).

Chapter 4 provides specific details of the Pilot Survey conducted in order to test and standardize the Questionnaire before going for the main Study. 10 investors and 20 non-investors have been considered for the Pilot study. The details of the Pilot Survey and the take away from the Pilot to main Study are there in this Chapter.

The pattern of investment done by the retail investors of Ranchi (Jharkhand, India) has been presented in **Chapter 5**. It exhibits how the respondents (investors) behave concerning; Percentage of Income of the respondents Spent on Investment, Avenues opted for Utilization of Saving Volume, Primary goal for the funds in Respondent's Investment Account, Main Objective of Investment, Preference of Respondents' Exposure amidst volatility of returns, Preferred Time Period for Investment, Frequency of Checking the Performance and Status of the Fund and Source of Collection of Information on Funds.

Although people don't prefer to invest in stock market because of risk involved in it, in their day to day affairs, they used to take risk. Thus the objective of **Chapter 6** is to assess to what extent the investors take risk in multiple walks of life so that the same could be made use in stretching the depth of investment on equity.

Chapter 7 explains whether risk appetite scores of respondents (investors) get influenced by their demographic profiles. For ascertaining whether demographic factors influence the risk tolerance capacity of the respondents, the independent variables taken are demographic factors such as; Gender, Age-Group, Educational Qualification, Number of Family Members, Occupation and Income level. And the dependent variable taken is the risk tolerance capacity, i.e., Weighted Risk Tolerance Score (RTS_w). RTS_w of an individual (respondent) in a facet has been ascertained by multiplying the risk tolerance score (RTS) of the option selected with the weight of the facet (i.e., $RTS \times W$). All the respondents' RTS_w has been calculated in the similar fashion and they have been presented in the form of a rating scale as given in table 7.1 so as to test the hypotheses through ANOVA.

In **Chapter 8**, investors studied have been segregated into three different clusters on the basis of their average weighted risk tolerance scores. Three clusters formed are; a) Investors with High Risk Tolerance Capacity, b) Investors with Medium Risk Tolerance Capacity, and c) Investors with Low Risk Tolerance Capacity. It also contains the strategies for different clusters of investors for stretching the depth of investment on equity. Strategies have been framed on the basis of a Focused Group Discussion amongst 10 experts from Finance function such as; Certified Financial Planners, Fund Managers and Experienced Professor of Finance.

All the chapters of the thesis so far analyzed the behavior of investors who invest on equity. The ultimate objective of this consideration was to stretch the depth of investment on equity. Although Indian economy faces the problem of depth of investment, the problem is more acute in case of incidence of investment as around only 1% of India's population invest on equity. In order to stretch the incidence of investment, it's important to know why the non-investors don't prefer to invest on equity. On the basis of literature review eight such independent variables have been identified which might insist the non-investors to remain non-investor. Thus **Chapter 9** prioritizes, on the basis of standardized regression coefficients; those identified eight variables in the context of resisting the non-investors to invest on equity. For the purpose 390 non-investors on equity were considered. In order to substantiate the findings and suggest how to stretch the incidence of investment in Indian Stock Market a focus group discussion by 10 experts, who have direct interface with the potential investors, has been conducted.

The previous chapters presented the findings related to the pattern of investment, risk tolerance score, clustering of investors, strategies to stretch the depth and why non-investors don't prefer to invest on equity. **Chapter 10** summarizes the findings of this research, highlights the contributions of this research to real world and point out the limitations as well as the future scope for research.

Chapter-2

Background and Review of Literature

2.1. Overview:

This chapter of the thesis briefs the format of Indian capital market and highlights the functioning of Indian Stock Market, particularly, National Stock Exchange (NSE) and Bombay Stock Exchange (BSE), besides mentioning the role of the regulatory body, i.e., Securities and Exchange Board of India (SEBI). The second part of the chapter briefly explains the gist of existing relevant literatures surveyed that provides the base to identify gap and design the research framework.

2.2. Background:

Mark Twain once divided the world into two parts, people who have seen the TajMahal and the people who haven't seen. Similarly there are two types of investors in India, one who have exposure to various investment avenues and one who don't have idea about whereabouts of investments. India may look like a small dot to someone in the U.S., but upon closer inspection, one will find the same things one would expect from any promising market.

Stock Market is a place where an organization or the investors can trade stocks. There will be buyers and the sellers, termed as market participants. Market participants include individual retail investors, institutional investors such as mutual funds, banks, insurance companies and hedge funds, and also publicly traded corporations trading

in their own shares. Stock Exchange is a platform which brings these two entities together to complete the trade. This makes the stock more liquid and thus more attractive to many investors. It may also act as a guarantor of settlement. Other stocks may be traded "over the counter" (OTC), that is, through a dealer. Some large companies will have their stock listed on more than one exchange in different countries, so as to attract international investors.

Presently there are 21 stock Exchanges in India including Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). BSE and NSE are the two most active stock exchanges in India. The total turnover of the BSE in the Financial year 2016-2017 is around 6,84,169.22 Cr. BSE recorded total daily turnover of Rs2,93,526.31 crore, while that at NSE rose to Rs5,32,612 crore—taking the combined total for the entire Indian capital markets to Rs8,26,138.31 crore.

As the history of stock exchanges in India is of more than 140 years old, but participation in the stock market is very meager which is around 1.4% of total Indian Population? So, it will be interesting to know that how to penetrate into market and at the same time how to stretch the investment of the existing investors. The first organized stock exchange in India was started in 1875 at Bombay and it is stated to be the oldest in Asia. In 1894 the Ahmedabad Stock Exchange was started to facilitate dealings in the shares of textile mills there. The Calcutta stock exchange was started in 1908 to provide a market for shares of plantations and jute mills. Then the Madras stock exchange was started in 1920. At present there are 24 stock exchanges in the country, 21 of them being regional ones with allotted areas. Two others set up in the

reform era, viz., the National Stock Exchange (NSE) and Over the Counter Exchange of India (OICEI), have mandate to have nation-wise trading.

They are located at Ahmedabad, Vadodara, Bangalore, Bhubaneswar, Mumbai, Kolkata, Kochi, Coimbatore, Delhi, Guwahati, Hyderabad, Indore, Jaipur, Kanpur, Ludhiana, Chennai Mangalore, Meerut, Patna, Pune, Rajkot.

2.2.1. The BSE and NSE

Most of the trading in the Indian stock market takes place on its two stock exchanges: the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The BSE has been in existence since 1875. The NSE, on the other hand, was founded in 1992 and started trading in 1994. However, both exchanges follow the same trading mechanism, trading hours, settlement process, etc. At the last count, the BSE had about 4,700 listed firms, whereas the rival NSE had about 1,200. Out of all the listed firms on the BSE, only about 500 firms constitute more than 90% of its market capitalization; the rest of the crowd consists of highly illiquid shares.

NSE offers trading in the following segments: Equities (Equities, Indices, Mutual Funds, Exchange Traded Funds, Initial Public Offerings, Security Lending and Borrowing Scheme), Derivatives (Equity Derivatives (including Global Indices like CNX 500, Dow Jones and FTSE), and Currency Derivatives (Interest Rate Futures, Debt and Corporate Bonds).

2.2.2. SEBI (Securities and Exchange Board of India)

The Chapter would be incomplete without discussing on the SEBI. Securities Exchange Board of India (SEBI) was set up in 1988 to regulate the functions of securities market. SEBI promotes orderly and healthy development in the stock market but initially SEBI was not able to exercise complete control over the stock market transactions. It was left as a watch dog to observe the activities but was found ineffective in regulating and controlling them. As a result in May 1992, SEBI was granted legal status. SEBI is a body corporate having a separate legal existence and perpetual succession. Securities and Exchange Board of India (SEBI) was first established in the year 1988 as a non-statutory body for regulating the securities market. It became an autonomous body by The Government of India on 12 April 1992 and given statutory powers in 1992 with SEBI Act 1992 being passed by the Indian Parliament.

The overall objectives of SEBI are to protect the interest of investors and to promote the development of stock exchange and to regulate the activities of stock market. The objectives of SEBI are; a) To regulate the activities of stock exchange, b) To protect the rights of investors and ensuring safety to their investment, c) To prevent fraudulent and malpractices by having balance between self- regulation of business and its statutory regulations, and d) To regulate and develop a code of conduct for intermediaries such as brokers, underwriters, etc.

Stock Market plays one of the important roles in the growth of the economy. It helps in channelizing the savings from Indian households into the economy. Stock Market acts as a barometer of the economy which reflects the health of the economy. It helps the limited companies to raise capital in order to meet their short term as well as long term objectives. At the same time it opens an investment options for investors who wants to diversify their investment in order to beat the inflation, to get an inflation-adjusted return. There are about 1659 companies listed in NSE , and as on oct '15, 5788 in BSE as per site of both the exchanges it keeps changing as some companies get listed and in some cases it gets delisted also.

2.2.3. Who can invest in India?

Retail Investors, Asset Management Companies, Insurance Companies, Foreign Institutional Investors, Foreign Direct Investors and Corporate can invest in India

2.2.4. Who can be Participants of Equity Market?

Investors, Brokers, Sub-Brokers, Companies and Depositories are participants of equity markets.

2.2.5. Depository

A depository is an organization which holds securities (like shares, debentures, bonds, government securities, mutual fund units etc.) of investors in electronic form at the request of the investors through a registered Depository Participant. It also provides services related to transactions in securities. At present two Depositories viz. National

Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL) are registered with SEBI.

NSDL works for National Stock Exchange, whereas CDSL works for Bombay Stock Exchange. NSDL stands for 'National Securities Depository', whereas CDSL stands for 'Central Depository Securities' Limited. They both are depositories that hold various securities like shares in electronic form.

2.2.6. Demat Account (Dematerialized Account)

In India, shares and securities are held electronically in a dematerialized (or "Demat") account, instead of the investor taking physical possession of certificates. A Demat account is opened by the investor while registering with an investment broker (or sub-broker).

2.3. Review of Literature:

As per the study by Chandra and Kumar (2012), It is important to study individual investors' behavior, since Indian individual investors are more prone to psychological biases while making financial decision making. Presence of financial heuristics, self-regulation, prudence and pre-cautious attitude financial addiction and lack of information effects the decision making of the investors. More focus or study has been done into institutional investors behavior, thus ignoring the retail investors. Many researchers and studies have been made in context of developed nation like U.S.A. or European Union, but a lot more studies are needed to justify the participation of developed country like India into the financial market.

Sultana and Prardhasaradhi (2011) reveal that it is important to do the risk profiling for important asset allocation, so that by under valuing the risk tolerance, investors may face opportunity loss for not investing in Indian Stock market .The research found that the Socio Economic Characteristics such as marital Status, earning, occupation and number of dependents are dependent on risk tolerance but education level, regularity of investment decision are independent on risk tolerance.

The study undertaken by Anbar and Eker(2010) finds financial risk tolerance is one of the important factors which need to be studied well before making investment decision .Measuring risk tolerance and determining the factors that affect financial risk perception are important factors which need to be considered. In Modern investment decision model there are four fundamental inputs for development of financial and investment risk plans. The inputs identified are goals, time horizon, financial stability and financial risk tolerance. More the risk averse investors, less the financial risk tolerance and vice-versa.

Das (2012) findsthat as it is known no two individuals are same, the same theory is applied to retail investors. All the investors comes from different background, they are unique and heterogeneous in their needs and wants. The main priority of the investors is of safeguarding of their principal, having liquidity in their investment, so to meet any uncertainties and off-course the capital gains. So to penetrate investment

opportunities into semi-urban and rural areas is important or there is need to enhance the awareness about the financial products to maximum of the population.

As per Sindhu and Kumar (2013),households of India dominate over public and private sectors when it comes to saving. India is one of the top in countries in generating saving and it will be very fruitful if this household surplus gets channelized into economy by investing in different avenues. Unfortunately there is very less participation from individual investors in the equity market either directly or indirectly.

The study by Rakesh and Dhankar (2010) reveals that risk and returns are normally distributed, it has been found that the return on some particular day or month vary from rest of the days or months. So there is a fair chances to earn abnormal profits. Here again time horizon plays a very important role in fetching this huge returns at the same time considering the amount of risks involved in this.

Kamiru and McGowan (2013), in their study state that capital market plays a vital role in the development of the economy. It provides synergy to the deficit economic units so that they can fulfill their objectives and at the same time brings developments and growth to the economy as a whole. Again it is important to have transparency in the economy and the degree to which transparency is present should be known. Political Stability is an important requisite for transparency in the stock market and its

performance; it brings confidence in the investors and thus helps in channelizing their savings into the financial market.

Based on study of Shah and Verma (2011), it can be inferred that since the liabilities on the youth investors are less so they can make more exposure to risky investments. There are two factors which play an important role for youths one is fundamental of the stocks and second is capital gain. Four different types of investors have been found they are as traditional mode investors, casual investors, long term investors and well-informed investors. So it is important to analyze the sentiments of the investors in valuation of the stocks.

Faff *et al.* (2004) examined that it is important to do risk profiling of the investors. It has been found there is a difference between level of self-assessed risk tolerance and risk tolerance score. The investors sometimes fail to judge their risk appetite correctly due to which they suffer from opportunity loss. Here again demographics plays an important role in assessing the risk tolerance score. The study will help to understand the importance of risk tolerance and also help to devise risk tolerance score.

Rozeff (1975), in his study reveals that Money Supply acts as a leading indicator to Forecast Stock Market Movement. Public news are also important for making investment decision so here education plays an important role which will have direct impact on risk taking capacity.

Public news are also important for making investment decision ,so here education plays a very important role which will have direct impact on risk taking capacity. It will help us to strategize for the Cluster of Investors, who, without having concrete information on public news, tag the stock market judgmentally.

According to the study by Ray (2008), the behavioral finance is a new paradigm where a lot more studies are required .To study the human behavior is a complex process so to understand their need regarding investments is important. By understanding the human behavior, attitude and heir psychological mechanism involved in decision making process. Standard financial model will help to understand how the incidence and depth of investment in the stock market be augmented.

Panjali and Kasilingam (2015) in their study state that investment behavior of investors can be studied in various ways. Lifestyle is an another important factor which influences the investment behavior of the people. So now it becomes important for the intermediaries and capital market operators to know the lifestyle of the investors to design effective instruments and can motivate them to enhance their penetration in different financial avenues. The lifestyle of an investor can be determined by studying their activities, interest and opinion of investors. Lifestyle largely depends upon the income of the person. It gives clear picture of their saving surplus. The occupation too influences risk taking behavior.

Sulaiman (2012) reveals that risk tolerance is a complex attitude. Risk tolerance should be measured simply, since there is an aspect of utility for any investment decision and maximizing the utility is an ultimate concern for any financial activities. Risk tolerance has four facets i.e financial, physical, social and ethical. It is considered as an important factor in saving and investment choices in financial planning. Study of demographics is another important factor which must be considered in studying the risk tolerance of the investors. Risk tolerance varies from person to person. So, It is Important for the analysts or brokers or Sub brokers to understand the risk appetite of the investors. As it has been found that risk vary with demographics, so another factor to be looked upon. Most of the anticipated association/relationship between financial risk tolerance and each of the demographic or socio-economic variables of individual investors from the literature were found to be relevant. It is generally thought that financial risk tolerance of individual investors decreases with their age. But, the present study fails to support this view, or even provide evidence to the contrary.

From the study by Sindhu and Rajitha (2014), it is noted that risk is inherent features in all types of financial investments due to variability in the expected returns and the actual returns achieved. So calculation the amount of risk what an individual can bear becomes very important. Risk perception also helps the investors in investment making decisions .Sometimes the investors may not appropriately judge their risk taking capabilities. There are various factors which influences the risk perception of the investors. The factors includes unpredictability of returns, knowledge about the

financial assets, chances for incurring loss, diversification of the portfolio, and dependence of the professional advices. The risk perception or the risk tolerance will actually help the investors to decide with which investment options they may go with, and the amount of risk with their capital they can bear.

Rastogi (2015) strongly supports the presence of behavioral aspects in investment decisions of the investors. And it can found that the behavioral finance can explain answers to many questions related to financial investment which cannot be explained appropriately by conventional fianace theory. It was also propounded that behavioral biases vary across gender and their occupation.Sine India comes under conservative group of population when it comes to saving .So the study becomes more important to channelize the huge saving into the economy so that over all development can be seen in the economy as well as the investors too get the taste of inflation adjusted positive positive returns. In countries like India, investments and investment decision making, become more important. Industry and academia alike look forward to know how people go about selecting the investment vehicle to park their savings. Researchers look for the factors which are important for selecting a particular mode of investments.

The study of Shaik *et al.* (2012) tells that no two individuals behaves in the same manner neither their investment objectives. There are numerous investment avenues are present in the financial market and the investors can choose which suits their investment objectives. Psychological studies have been conducted which reflects that

the pain of losing money from investment is three times greater than the joy of earning. Behavioral finance says that how the investors overlook fundamentals of the company and they show herd behavior, Their emotions surpasses their proper objectives. Market updates also play an important role in controlling the sentiments of the investors, which sometimes force them to behave irrationally. Discipline is one of the important parameters which must be maintained when making investments in the Indian equity market. Emotions many times force investors to behave irrationally. So it is important that people after understanding their risk tolerance can judge where to make investments and what are their objectives of investment. They should not get affected by temporary volatility of the market's movements.

Prabha and Malarmathi (2015) states that India is a country of culture and tradition. There is still a strong bonding between the members in the family unlike in other developed countries. So, family members play an important role when deciding on investment decision making process and same theory applies when it comes to making investment in the equity market. Majority of the population feels that the Indian stock market is the place of gambling and they don't want to dispose their hard earned money into gambling. They mainly opt for traditional investment avenues. The risk tolerance of the investors here will be the average of the risk tolerance of all the family members. So rational decision is almost impossible in such type of scenario, particularly, in countries like India. When it comes to investment, various members in the family guide the scene. So it is now time to change this

misconception by calculating the risk appetite and accordingly choosing this investment avenue.

Paul and Bajaj(2012),reveals that Indian share market is one of the oldest share market in Asia, but the amount of participation in it is not convincing and the participation is considerably falling in the recent years.Majority of the retail investors of India follows traditional mode of investment like fixed deposit, Banks,Insurance, etc. which actually landed them with negative return, when we will be considering inflation also. But since they are very much risk averse so they don't want to make exposure to risky portfolios. Most of the existing equity investors are also not well-versed with information.so they are considered to have moderate level of awareness about equity market. Thus, investment in share market by the retail investors is influenced by their occupation and income.For increasing participation of retail investors in the equity market the awareness among the need to be created. Awareness programs should be organized to promote equity market as an investment opportunity and to make people aware of its long term benefits. In this respect broking houses need to play a major role and guide the investors in picking up the right shares at the right.

Rao *et al.* (2013) states that, stock market helps to channelize the household saving into corporate sectors which in turn brings all round development to the economy.In recent years corporate securities emerged as an attractive avenues for the investors who wants to fetch better returns and who are ready to take risk. Due to

industrialization of Indian economy stock market of India gets vitality. When the market timing is correct then the investors starts enjoying the share trading .The authorities are working on increasing training and awareness programs for the investors.As it is known society comprises of several groups so, it is important to study the social economic characteristics to bring the best possible investment avenues for the investors. It becomes important to increase the awareness among the investors so that they can stretch their surplus into the market.

Gandhi (2015) states that the economic liberalization in India in 1990's had opened new way for the Indian stock market .It was time when market has seen new heights. At this particular period the Indian stock market was one of the lucrative market in the world. Even the retail investors enhanced their participation. SEBI also started working in this period.

Two individuals are different in their taste and so their preferences and investment objectives. So investors' preference is of utmost concern for the intermediaries as well as experts who gave advices so that the investors get best option as per their risk taking capabilities.Risk profiling is again here becomes a very important term for the intermediaries, and their involvement with their clients to make a long term relationship is to be dedicated in real sense.

Gour (2013), said that now a days investors are becoming more knowledgeable and informative. So they find it interesting by experiencing different investment avenues. Investing in different types of of assets is an interesting activity which attracts

investors from different facets of lives, irrespective of their occupation, economic status, education and family background. In this study it has been found that there is no significant association between profile of the retail investors, qualification, age, occupation and decision of investment avenues. The investment decision of the investors is influenced by various other factors like friendly suggestions, advertisements, financial statements of the companies, dividend policies, institutional investor's behavior of investment, foreign market crisis. The study also revealed that study also revealed that participation from educated people are more as retail investors into stock market.

Mistry (2015) states that individuals invest in the stock market with their capital at high risk to get high possible return from the investment. It also helps to identify the preferred source of information which influences decision making capacity of the individual and how they react in different market scenario. Based on their psychological traits investors are divided as conservative, opportunistic, speculative. It has been found that majority of the investors do not consider various financial element before making investment into stock market. Small investors are not conservative about the company events as they are unbiased under speculative related domestic events and also under opportunities about the world economic event. The behavior finance considered attempts to understand how emotions and cognitive errors influences the behavior of the investors. Since the investors are getting knowledgeable and informative day by day and their attitude towards equity market

investment can be increased through training or bringing investors' education program.

Sireesha and Laxmi (2013) in their study present the result of empirical testing of impact of demographics factor on different investment avenues. Since it is known that India is a country of traditions and when it comes to making investments in majority of the cases the outcome is biased, they are influenced by their relatives and friends. So word of mouth here becomes an important parameters for making an investments. Overall demographic has been studied with respect to income, occupation level and amount of saving left with. Again ranking of the investment is carried with proper judgment. Various factors are present before making investment decision. It has been found from the study that generally the investors are risk averse and they don't want to put their hard earned money into risky portfolio. The investors are very much inclined towards their reference groups. So, they don't want to take the responsibility of making the decision independently. When it comes to Indian stock market, there is a negative word of mouth. So, participation is also very meager. So it becomes important to change their opinion and channelizing their surplus amount in the overall development of the economy.

From the study of Ahmad (2013), it may be inferred that majority of the population participate in the stock market due to self-interest. They prefer participating in the market due to increase their capital with calculated risk. They often follow the mixed strategy. They don't want to put their earnings in the same basket. The main objective

of the study is to develop a framework about behavioral aspects of individual investment in stock market of Bangladesh. Investors generally prefer to enter into the market when market is in bearish phase. They generally want to be associated in the market as trader. Very few wish to be associated as long term investors. They can easily term as opportunists. They like to gather information from various sources before making any investments. The study also aims to put glance on recent trends and current scenario of the stock market and pinpointing the areas that should be emphasized more by the investors to get maximum out of their investments. It is not easy to predict the market movement so easily. Sometimes it often became tough for the experts to predict the future movement. So because of this very fact sometimes retail investors see negative returns and even experts' advice may not work well. It has also been found that present stock market scenario is not so well doing. There is a gap between the stock market performance of Bangladesh and the economy of the country, which do not reflect the true picture of the economy in the true sense. The present scenario has created a doubt in the minds of market watchers that the bubble can get burst just like 1996 that was dubbed as 'Slaughter of Innocence'.

The study of Nagpal and Bodla (2009) endeavors to test that the psychographic characteristics influence on investment behavior of the investors. It has been noted that the investors are becoming more informative and groomed so, they can access various sources of information, to get pictures of the economy as well as market. If the investors fail to interpret the available data they can go with the expert's advice or available market information. In spite there is phenomenal growth in the Initial Public

Offer are also easily accessible, but still the investors are more inclined to less risky investments, like Fixed Deposits, Banks, Post Office and Life Insurance etc. There are very less occasion of blind investment they are guided by some reference group for taking investment decision. They are in trap of some cognitive illusion such as overconfidence, and narrow framing, they consider multiple factors and seek diversified information before executing some kind of investment decision. Today investors are becoming informative and there are plenty of information available in the market which can help the investors to make investment decision. If the retail investors fails to interpret the information's available expert advice can be taken to land safely with the equity investments. It has been rightly said by Warren Buffet that apart from financial knowledge it is important to be disciplined with the investment made and it is important to avoid herd behavior.

Akhter and Sangmi(2015) reveal that stock market is considered as pulse of the economy or it can be rightly said as economic mirror, which reflects the health of the economy. And the investors are considered as backbone of the economy so their participation is utmost important to keep the health of the economy in good condition. Because of the presence of media and easily accessibility of internet it increases the level of awareness about the market participants. Even the new entrants into market can also gather information and taste this investment avenue.

Participation of youth into the market will improve the health of the economy because they are considered as the risk takers since they have longer time horizon as far as investment is considered. So in the long run there is a fair chance to earn huge profits

provided selecting the correctly valued stocks. Since stock market is the barometer which reflects the health of the economy so it becomes important to bring participation from all age group especially the youth so that economy can develop to its fullest and at the same time the retail investors can fetch maximum returns from it beating the inflation.

Paramjeet *et.al.* (2016) states that behavioural is a relatively contemporary phenomenon. It is based on the fact that the information structure present as well as characteristics of the market participants influences the investment decision making process systemically and the outcome from the market. The behavioural finance states that the behavior of the investors in financial market is determined by the drivers from psychological principles of decision making to explain why people invest in financial market the investors are not rational decision makers, they are more inclined towards emotional and cognitive prejudice such as loss aversion. They also shown herd attitude. The news flash and the media coverage too have impacted the overall performance of one's investment including timing the market etc. It has been outlined from the study that the behavior of the respondents is influenced by their psychological traits namely risk aversion self-reliance and belief etc. Risk taking ability of the investors depends on demographic factor i.e. income. It has also been found risk taking ability is independent of gender. The financial behavior of the respondent is influenced by their psychological traits.

As per Pallavi and Raju (2014), Derivative is another segment which gives an opportunity to the retail investors in making participation in Indian Equity Market. The derivative market is witnessing tremendous growth in the India in recent years. The key players in India derivative market is institutional investors followed by the retail investors. In India, derivative suits to only to the well-educated group who can bear calculated risk. The study analyzes the perception of investors regarding the derivatives market, to review the problems and satisfaction levels of retail investors in derivatives market. Firstly from the study it is inferred that from the study of the demographic factors it id found most of the investors are of age 25-35 and are mostly public employees, so the institutions dealing in derivatives products can take these factors and develop suitable marketing activities for them and attract them to invest more in derivatives markets.

Secondly it is found that the friends and relatives are the most influential persons to pull the investors into the derivatives market. So the Institutions should develop some referral programs and rewards for referrals, so that the existing investors can actively bring in more number of investors. Thirdly it is also found that the investors are investing up to 30% of their income on derivative instruments and also they said that the market risk is main parameters they look in to before investing. So the Institutions should develop products which are of less market risk and the credibility of the institution should be briefly explained to the investors. Fourthly investors felt that high margin in derivative segment was the main barrier for investing, so the Institutions should work on this to reduce the margin. Finally, derivatives markets help to retail

investors to increase their saving and investment in the long-run. Transfer of risk enables market participants to expand their volume of activity.

From the research study of Kher and Shende (2013) it is found that an increase in the income generally leads to inclination to spend or an increased propensity to invest or both. This research project aims at detecting the change in the employees' propensity to invest in different avenues after the implementation 6th pay commission vis-à-vis before its implementation. The objective of this study is firstly to analyze the most preferred Investment options available to the investors, Secondly to find out the impact of change in income on the investment pattern of central government employees. Thirdly, to find out the investment pattern in various areas before and after the implementation of the Sixth Pay Commission. Fourthly to find out the impact of the Sixth pay and the subsequent hike in the salaries of the central government employees on their investment pattern. This research project uses a descriptive research design and it has been found that increase in the salary increases the inflation and the salary of the public sector employee is less than the private sector employees. The hike in salaries and the change in pay scales was reflected in the investing pattern of employees. Employees in the public sector, hitherto invested only in portfolios which they considered as safe, which were low in the risk aspect and also yielded satisfactory returns or commensurate returns, but post pay commission, their investments in avenues like share markets, real estate's etc. have also risen. Here again study of risk appetite become important, only increase in income cannot justify increase participation in Indian Stock Market. So, it is

important to do risk profiling of the retail investors before making investment decisions.

Kaur and Kaushik (2016) state that Mutual funds in India have not been as favourable investment alternatives as in developed countries, as assets under management of mutual funds to gross domestic product in India have been 7-8 per cent compared to 37 per cent globally. Further, investor base of mutual funds has been narrow, as retail investors constitute 98 per cent of folios but contributed only 58 per cent of investments in September 2014. To broaden the investor base for mutual funds in India, it remains imperative to understand the determinants of investment behaviour of investors towards mutual funds. This study aims to achieve this objective. Since India is a developing country and its penetration into financial market is less as compared to the developed economy. Channelization of the saving into the capital market can be done through direct participation in the capital market or through mutual funds so that in long run, they can get inflation adjusted return. Mutual fund came out as an investment option, which is getting noticed by the investors.

Prosad *et al.*(2009) states that there is presence of the behavioral biases such as overconfidence, excessive optimism (pessimism), herd behavior and the disposition effect in Indian investors. It further investigates the role of demographics and investor sophistication in influencing the biases. Finally, it reveals which bias is most prevalent in the Indian context. The survey evidence shows that behavioral biases are dependent on investors' demographics and their trading sophistication with highest

influencing factors being age, profession and trading frequency. Each bias corresponds to a specific set of investor characteristics and overconfidence comes out to be the most important bias in the Indian context. This study is most relevant for financial advisors, as it facilitates them in gaining a better understanding of their clients' psychology. It can aid them in developing behaviorally modified portfolio, which best suits their clients' predisposition.

Mahenderet *al.*(2014) states that the present study aims to examine the investor's perception on trading volume and stock return volatility in Indian stock market using a structured questionnaire. The main findings show that out of the nine dimensions determined, on the basis of age, there is a significant difference in the response of the respondents in the case of tactics. On the basis of education, there is a significant difference in the response of the respondents in the case of cause-effect relationship and risk management. In all demographic profiles, there is no significant difference in trading volume and stock return volatility. The main implication of this study is for the investors and portfolio managers, as a majority of the respondents show strong willingness to use trading volume and stock return volatility as an informational tool. Therefore, this study suggests that a new approach to investment ought to be evolved which should aim at using trading volume and stock return volatility as information indicators. The objective of the present study is to analyze investors' perceptions on the relationship between trading volume and stock return volatility. It further suggests guidelines to investors, on the basis of the findings, regarding trading volume and stock return relationship for taking rational decision. The present study is an empirical

analysis of investors' perceptions on the relationship between trading volume and stock return volatility. It is observed that a majority of the respondents in first set are middle-aged. All respondents completely agree that trading volumes and stock return have importance while making investment. There is no complete agreement on the tactics they follow for making strategy regarding financial decision. It indicates that the respondents of different age groups have diverse views on 'tactics'. Moreover, all age groups of respondents agree that causal relationship exists between trading volume and stock return volatility, though there are differences in the degree of agreement. The trading volume plays an important role in channelizing more investment towards stock market investment. It has been observed that there is a negative word of mouth regarding stock market investment. And it is primarily considered as a Gambling for the small investors.

Sankararaman *et al.* (2009) state that Researchers have put focus onto the investors' perception on astrology towards investment and it is hoped as potential antecedents of investors' perceptual commitment or belief for systematic attempts of success. An attempt was made in the study to know the relationship between astrology and investment decisions. The results of chi – square test and other tools have tried to establish the relationship between various variables of astrology and investment. The study concludes that though we are in the modern age people believe in the traditional aspects like Ragu Kalam, Yama Kantam, Ashtami and Navami. Even some of the non- believers were also found to follow these things by saying the reasons like respecting the elderly people in the family. The objectives of this study is to identify

the preferred day of investment, to find out the period of investment and reasons for selecting a specific period, to examine the beliefs of people on Ragu Kalam, Yama Kantam, Ashtami and Navami and their preference of investment during those periods, To trace the attitude of the investors when the auspicious day becomes a holiday. In this study the researchers have adopted descriptive research design. The sampling method adopted was non probability in general and convenience sampling in specific. A self-administered questionnaire was used to collect data from the investors who have some experience in investment. Religion, age, experience, suggestions and predictions of others will have some impact on deciding the day of investment. Though we say that we don't believe in astrology every one of us will have some day as a favorite day for making investment or to start any important activity. So in this study the researchers have tried to identify the day normally preferred by the investors. All the investors are becoming educated day by day. They became more informative about the financial products and investment avenues. But still people are there who use to invest according to some auspicious day or based on astrology. This point must be noted that the Indian investors are emotionally driven investors. Many a times they do not invest rationally.

Sehgal *et.al.* (2009) examines definitional aspect of Investor Sentiment, the key economic, market and regulatory factors that influence investor sentiment and the relationship between investor sentiment and market performance. There seems to be no clear consensus on the concept of investor sentiment and hence any meaningful definition ought to be inclusive and fluid.

The important economic factors highlighted in the work are: Real GDP, Corporate Profits, Rate of Inflation, Level of Interest Rate, and Liquidity in the Economy. The market based factors that can be linked to Investor Sentiment are: Put Call Ratio, Advance Decline Ratio, Earning Surprises, P/E Ratio, and Price to Book Value. The regulatory framework of a financial market does seem to have a strong bearing on investor sentiment especially the legal provisions relating to corporate governance and Grievance Redressal Mechanism. Most respondents believe that investor's sentiment and market returns are bilaterally co-related. Our findings are largely in conformity with recent studies for other capital markets. These findings can be used to develop a comprehensive Investor Sentiment Index for India and hence have significant implications for investors, market intermediaries and financial regulators. This analysis will help in developing an Investor Sentiment Index which will be a useful tool in studying the relationship of market performance and investor sentiment and its understanding is of crucial importance in designing effective policy.

Das and Pattanayak (2013) reveals that saving is considered as one of the long term growth drivers, and the economic progress depends on how savings are effectively channeled. The securities market plays a significant role in channelizing the saving into the economy by bringing various financial instruments to the investors. The securities market intermediated between saver and investor, it act as financial institution and provides fair price to different financial products.

The corporate database of the Capital Line has been used for the empirical study. The quarterly data of various explanatory variables was drawn from all the 30 shares and

50 shares constituting the Sensex and Nifty, respectively. The findings suggest that corporate fundamental factors have a determining effect on the share price movements. The impact of various factors tend to be different in India with respect to other developed financial markets because the Indian markets were in weak form of efficiency in pre-reform era, and due to unclear and diffused stock market regulations and policies, high level of market manipulations and anomalies were existing.

It is also useful to the investors, brokers and corporate to have first hand knowledge of how the factors like return on investment, earning power, growth, valuation, risk and volatility factors can affect the stock market movement. It is important for the brokers, Analysts to have clear know how about the variables like PE, PB, YIELD, EPS etc. These fundamental factors are important for designing a optimum portfolio for the retail investors since majority of the Indian investors depends upon the expert advices.

As per Dubey *et al.* (2013), there has been significant work in the area of efficient market theory, information spill over, long and short term memory of time series data, rationality of markets and linkages of economic variables to the stock market returns. This study connects the all these dimensions market and thereby empirically testing the impact of information flow and information processing ability of the market using an Event Study approach. The findings suggest that inflation, oil prices, money supply, gold prices have a significant impact on the volatility of stock market. The amount of variation shown by all of them taken together is low as observed in the combined regression equation. Thus, it leads to an opportunity for future research on

what other factor accounts for the stock volatility apart from these macro-economic factors.

The business around the world is affected by the economic environment in which it operates. Each and every movement in the environment has some or the other effect on the business entity. Information plays an important part in the shaping up of business environment. The spontaneity of information and assimilation by the business entities or the counter parties involved in any sort of business transactions impacts the business or the value of a business. The value of a business is nowadays estimated by the market capitalization of the businesses, the market price at which the stock/equity of the business is being traded. These trades are the architects of the stock market movements. The soundness of the economy is often evaluated by the stock market valuations; the reason is, better the economic environment, better would be the buoyancy in the market. Clearly the information from the economic environment is the antecedent of the changes in the stock market movements. In the present study we investigate the relationship between timely economic information and the stock market movement. The objective of this study is to investigate the various economic factors which affect the stock market volatility. We study various events like inflation, crude oil prices, money supply M2, etc. announcements using the event study approach to detect its impact on the stock market, if there is any. We study the impact of periodic announcements made by Reserve Bank of India (The Indian Central Bank) on the stock market (NSE/BSE).

Kaur *et al.* (2016) state that Behavioral finance is a relatively contemporary phenomenon. It is based on the assumption that information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes. As per the discipline of behavioral finance, the behavior of an investor in the financial market is determined by drives from psychological principles of decision making to explain why people invest in financial market. When it comes to investing in the financial markets an individual is not always as rational as he thinks he is. Emotional and cognitive prejudice such as loss aversion (expecting to get high returns with low risk), herding (imitating others decisions), media response (overreacting to headlines), and timing the market, etc. impact the overall performance of one's investments. The study has found out relationship between demographic factors such as age, gender and income of the respondents and their risk taking abilities. It has also established relationship between psychological traits and investment behavior of an investor. In fact, the present study is an attempt to understand investors' financial behavior with respect to their demographic relationships and their psychological traits which influence investment decision making. It has been found that the financial behavior of the respondents is influenced by their psychological traits namely risk aversion, self-reliance and belief, etc. Risk taking ability of an investor is predominantly dependent on the demographic factors i.e. Income. There exists a positive correlation between these two variables. There is no relation between the investors' gender and the level of risk taken by him/her. Correlation analysis between gender and the level of risk taken by investors show that there is a negative correlation between these two variables.

Investor's behaviour is influenced by many factors during investment decision making. Demographic profile of investors is also one of the factors influencing the investor's decision among the others. The above study is based on the data analyzed and interpreted from the investors around Pune region only. This study concludes that the demographic factors like income has significant impact on the investor's behaviour affecting his/her risk taking ability. The other demographic factors such as gender have no impact on investment behaviour of the investors. The psychological factors such as Allusion, Self-Reliance and Risk Aversion are significantly associated with the investment decision making process

Mehta and Sharma (2015) states that the present scenario of Indian economy is featuring a time when banks are more focused about the financial inclusion, the capital markets are more focused about increasing the participation of individual investor in the stock market and financial market regulators are extra neurotic about financial literacy of the Indian households. An understanding of investor behavior will be of great significance at this stage. The present study has made an attempt to understand the pattern of individual investors' investment, their strategies while investing and their expectations from the investment made by them, and of course their demographic features. The primary motive of investment by a common investor in India is tax-savings. The middle age group investors are more risk takers than youngsters. The basic idea of investing in equity market is to obtain high returns. There is a paradigm shift in the life style of Indians with the change in economic growth of the country, the same can also be seen in their decisions related to savings

and investment. Earlier the Indian economic system was not so mature therefore the availability of information related to financial products, availability of options in financial products and other saving plans, and availability of developed capital and money market place was not there for individual and small investor. Therefore a more updated study about the individual investor's behavior in India can be of great relevance. The present scenario of Indian economy is featuring a time when banks are more focused about the financial inclusion, the capital markets are more focused about increasing the participation of individual investor in the stock market and financial market regulators are extra neurotic about financial literacy of the

Islamoğlu *et al.* (2015) states that In this study, it was aimed to investigate the factors that influence individual investor behaviour. Furthermore, the analysis regarding hypothesis tests was implemented by means of analysis of moment structure. As a result of the study, it was identified that six factors influenced individual investor behaviour. It was found that the highest correlation was between “conscious investor behaviour” and “banking and payment behaviour.” Also, it was confirmed that 11 of the research hypotheses were accepted and that four of the research hypotheses were refused. Within this framework, it was concluded that there was a statistically significant relationship between the factors affecting individual investors' investment behaviours. The main purpose of investors engaged in investment is to both maximize their income and minimize their expenses. In the literature of finance, individuals are considered to behave rationally when pursuing their own benefits. In this context, individuals spare some of their income for expenditure and some for saving.

Individuals need money to continue their lives or incentive processing. While they put a certain amount of their income aside to meet their needs, they make saving to guarantee their future with the other part. They direct economic costs that they made, saving at financial instruments with different purposes (capital maintenance, having perpetual income generation, providing capital gain). Individual investors are affected by several factors while they direct their savings at investments. Recent researches showed that individual investors who are evaluated within the scope of behavioural finance did not behave rationally during the decision phase because of demographic and psychographic characteristics.

Gopi and Ramayah (2007) states that the purpose of this paper is to identify factors that influence the intention to use internet stock trading among investors in Malaysia. Findings show that attitude, subjective norm and perceived behavioral control has a direct positive relationship towards behavioral intention to use internet stock trading. The theory of planned behavior can be used to explain variation in behavioral intention and actual usage. This study will provide information on factors that influence and affect investor's intention to use online stock trading. In addition, the result of the study could serve as a guideline by online stock broking organizations in understanding the factors and program that need to be instilled to increase online stock trading among current retail investors and future investors. Multiple regression analysis was conducted to test the relationship between attitude towards behavior, subjective norm and PBC toward behavioral intention in using internet stock trading. The main objective of this study is to identify the factors that are involved in influencing intention to use internet stock trading. From the findings it has been

identified that attitude, subjective norm and PBC influence investors' intentions towards internet stock trading. Results from this study has shed some light on which constructs in the intention-based model can be better used to answer the managerial problem of factors influencing intention to use internet stock trading. The insights provided by this study could be used by organizations as a foundation to formulate strategies to increase the usage of internet stock trading.

Fonseka *et al.*(2011) reveals that the purpose of this research is to determine the criteria used by the analysts for stock recommendation, identification of certain key factors which are useful for individual investors. According to the Modigliani-Miller theorem, the factors which affect dividend and capital gain could also influence investors. The regression analysis was used to identify the factors which influence the analysts' stock recommendations. The P/E ratio, dividend yield, return on equity and rate of retained profit are the financial indicators which affected analysts' advice. The market performance indicators of the return sort, volatility of shares have a significant impact on perfect investment decision. The emerging markets exhibit greater sensitivity to abnormal volume trading. However, we found that it is less sensitive to stock analysts' recommendation in emerging Colombo security exchange (CSE).

The stock analysts' recommends more concern on firm dividend than capital gain. We fundamentally disagree with the argument of Modigliani-Miller theorem in terms of analysts' stock recommendation and individual investor's point of view. Behavior of individual investors in emerging CSE is preferred on low risk stable dividend than

future capital gains. This paper analyzes the determinants used by the analysts' stock recommendations and identifies certain key factors which are useful for individual investors. The stock analysts were significantly concerned on P/E ratio, dividend yield, return on equity and rate of retained profit as financial indicators. Rate of retained profit negatively affect the decision to purchase of shares. The return sort and share volatility have been highlighted by the stock analysts as their significant important factors of the market performance indicators. The abnormal trading is less sensitive to stock analysts' forecasting decision due to abnormal volume trade is less in terms of amount and frequency in emerging CSE. This study consider only certain financial factors of company and market factors which affect dividend decision of a company and raise market price of shares. The findings of this study can be applied to the semi-strong efficient, liberalized small and medium size of other stock markets. This research will be an eye opener to other researchers for future study on behavior of investment advisers, stock analysts, market analysts, fund manager and other experts who are attached to stock market in different stock portfolio evaluation measurement.

Reddy and Reddy (2012) states that the Indian mutual funds industry is witnessing a rapid growth as a result of infrastructural development, increase in personal financial assets, and rise in foreign participation. With the growing risk appetite, rising income, and increasing awareness, mutual funds in India are becoming a preferred investment option compared to other investment vehicles like Fixed Deposits (FDs) and postal savings that are considered safe but give satisfactory returns in the long-term. Mutual

fund industry is a service industry which plays a vital role in the growth and development of the economy. Though the industry is growing, investors are not confident to invest in mutual funds. Wide range of mutual fund products is meeting the investors expectation is in disguise. Investment is good in mutual funds but for not more than 3 years. In this connection this paper attempts to analyze the investors' preference and attitude towards investment in mutual funds. The study is with special reference to Tirupati city considers the period from 2007-2012. The result is anticipated that asset management companies have to improve in conducting awareness regarding various mutual fund products and their benefits. The Objectives of the study is to know the savings objectives of individual investors, to know the savings instrument preference among individual investors, to understand the attitude towards financial instruments, to identify mutual fund investment is best alternative to equity investing, to know the schemes preferred by the investors, to identify the sources of awareness of

From the various investment avenues mutual fund is also one of the investment which is getting edge over direct investment in equities. Since retail investors lack in knowledge and at the same time they cannot be vigilant on the market actions, so they prefer to make investment through Mutual funds, thus participating in equity market.

From the study of Chattopadhyay and Dasgupta (2015) it is said that Investor behavior and investment activities are strongly influenced by the risk tolerance level of individual investors. International evidence suggests that lower risk tolerant investors are generally risk averse. However, their demographic characteristics and

socioeconomic factors drive their risk attitudes. This study aims at investigating the critical role that age, gender, marital/social status, number of dependents, educational qualifications, employment and income status, savings pattern, future monetary planning, investments amount and returns from investments play in influencing risk tolerance and thereby finding whether the individual investors are risk averse or risk prone.

To fulfill these objective 12 questions representing hypotheses were asked to 200 individual investors investing regularly in the Indian stock markets. A risk tolerance points scale is prepared to analyze the risk attitudes overall and each factor wise, and a Binary Logit Model is applied to validate these results. On an overall basis, this study finds that the responded investors have a lower risk tolerance level which makes them highly risk averse. In line with the hypotheses drawn, this study proves that aged investors are more risk averse than their younger, inexperienced counterparts; married investors with children and other dependents are more risk averse than their unmarried and with less dependents counterparts; higher education brings risk tolerance attitude and thereby makes investors risk prone; higher income and savings also decrease risk aversion whereas future planning approach increases risk aversion. It is also found under this study that higher investments amount and returns from such investments increase the risk tolerance level and thus reduces risk aversion of these investors. However, contradictorily with the undertaken hypotheses, this study finds that women investors are more risk prone than their male counterparts, and employment status of the respondents is immaterial in regard to their risk attitude. Binary Logit Model results also mostly validate the above results

except that it finds no impact of number of dependents, educational qualifications, employment status, FMP and investments amount on the risk tolerance levels of the respondent Indian investors. It can be seen that the demographics plays a important role in investment decision of the investors. Aged people are more risk averse than inexperienced youngsters. Again here risk profiling becomes very important part for the advisors, brokers and sub brokers for rightly suggest the shares to their investors so that they can maximum fetch out from their investments and at the same time keep them long time association with the capital market.

Yeoh (2016) states that recent findings in the finance and consumer behaviour literature have shown that investors' investment decisions are likely to be affected by their psychological tendencies. The focus of this paper is to understand how investors' psychological tendencies influence purchase postponement of shares. Furthermore, the moderating effects of product involvement on the relationship between psychological tendencies and also purchase postponement are examined. Using a survey research design, data was collected from Indian investors to empirically test the model using moderated regression analysis. The findings show that investor's psychological tendencies do significantly impact purchase postponement. Furthermore, a profile of Indian retail investors is presented in the paper. Our findings documents another distinct phenomenon of investors' persistent departures from rationality as posited by behavioural finance and also provides a better understanding of the nature of individual investor participation in the Indian capital market. In financial market risk profiling is the most important part before making investment decision. There is perceived trade-off between risk and

return. Illusion of knowledge is again the most important factor which is to be considered while studying the risk appetite of the customers.

The purpose of the study by Blonski and Blonski (2015) is to question the undifferentiated treatment of individual traders as “dumb noise traders?” We question this undifferentiated verdict by conducting an analysis of the cognitive competence of individual investors. The purpose of this study is to question the undifferentiated treatment of individual traders as “dumb noise traders?” The authors let experts (both experienced researchers as well as practitioners) assess the mathematical and verbal reasoning demands of investment tasks investigated in previous studies. Based on this assessment, this paper concludes that individual investors are able to perform a number of complex cognitive actions, especially those demanding higher-order verbal reasoning. However, they seem to reach cognitive limitations with tasks demanding greater mathematical reasoning ability. This is especially unfortunate, as tasks requiring higher mathematical reasoning are considered to be more relevant to performance. These findings have important implications for future regulatory measures. Based on this assessment, this paper concludes that individual investors are able to perform a number of complex cognitive actions, especially those demanding higher-order verbal reasoning. However, they seem to reach cognitive limitations with tasks demanding greater mathematical reasoning ability. This is especially unfortunate, as tasks requiring higher mathematical reasoning are considered to be more relevant to performance. These findings have important implications for future regulatory measures.

Roopadarshini (2014) adds to the research by investigating how behavioral factors affect the decision-making process of investors in the stock market, the study on stock market shows the efficiency of the market. This study tries to explain how investors make investment decisions in the stock market, or in an emerging market; it takes the following objectives is to determine the main behavioral factors influencing investment decisions, to investigate the impact of these behavioral factors on investment decision-making. Investors need to update themselves in multidimensional fields so that they can accomplish the desired goals in the competitive business environment. This needs better insight knowledge, and understanding of investors' nature in the existing global perspective, plus development of skills and ability to get best out of investments. Factors influencing investor decision-making are Heuristic decision, Representative, Overconfidence, Anchoring, Gamblers fallacy, Prospect theory, Loss Aversion, Regret Aversion, Mental Accounting. This paper examines Retail investors and their current attitudes towards investment in the market. The finding from the study is that there is a substantial, continuing interest in market among the retail respondents, past satisfactory/unsatisfactory experience and the level of confidence of various respondents in various investment avenues. An examination helps us in getting an idea of the risk-return preferences of the respondents. The question contained options ranging from an definite prize money offer to successively higher money options but decreasing probabilities of winning the responses are examined to ascertain the degree of risk they seek in relation to the expected return they desire. It helps in understanding the degree of certainty/uncertainty that

respondents are willing to bear. Theories of investors behaviour from psychology, sociology, and their anthropology have helped to motivate in the recent empirical research on the behavior of investor on the stock markets. Behavioral finance attempts to explain investor behaviors in markets, importing the theories of investors' behavior from the social sciences. This analysis will help to strengthen investors' intimacy. It will help to understand the expectation of the investors about the companies' perspective financial performance and corporate social responsibility. The expectation of the different types of investors regarding particular service requirements can be identified. This study helps in better understanding of what an investor looks for in an investment option. The awareness level of the investors about various investment options and what is the perception of the investors with regard to the investments they want to make.

Kotishwar and khan (2014) state that Mutual Fund industry is becoming a good option of investment in Indian Financial Market. It is quite popular among small and household investors, who mobilize their savings for investment in the capital market. India has a majority of middle class families who want to yield the maximum returns on their investment by taking the less risk and also save tax on their income. The study seeks to analyze the behavior of individual investors toward Mutual Funds in Telangana Region in Andhra Pradesh and performance of selected Growth schemes. The objectives of the study, specifically, are: to study and analyze the socio-economic profile of small and house hold Investors of Telangana region', their objectives, perceptions and the resultant behavior in respect of investment avenues in mutual

funds.to understand and measure the risk perception of investors of Telangana region towards Mutual Funds schemes.Factors are studied which are considered important before making an investment into mutual fund industries like their marital status, Income, age, gender, occupation, their experience with mutual fund investments and also study the scheme galore.

Duasa and Yusof (2013) state that the present study intends to shed new light on the issue of determinants of risk tolerance among Malaysians using data obtained from a survey. The main analysis is based on ordinary least square (OLS) method of regression using level of financial risk tolerance as the dependent variable and socio-economic factors as regressors.The preliminary analyses found that majority of the respondents prefer to keep their money in liquid assets, such as in saving account and cash. These assets definitely have the lowest level of risk compared to other forms of assets. A further analysis, using OLS regression reveals several significant determinants of risk tolerance among the sample respondents. Risk tolerance is higher among the young, males, those with higher level of education and those in non-public sector. In addition, the study also finds that Malays are more risk averse than Chinese and those in Kedah are more risk averse than those in Kuala Lumpur's. Risk means uncertainty and the results of uncertainty risk refers to a lack of predictability about problem structure, outcomes or consequences in a decision or planning situation. Households have variety of choices in allocating their savings/money in different types of financial forms. The choice could range from the lowest risk to the highest risk types of financial forms. This choice also implies different levels of risk tolerance

among individuals. Some households are more risk averse than the others. The challenge for households who opt for risky financial assets, however, is basically how to manage the risks. In other words, households have to learn how to live with risk not through blithe acceptance but through managing risk by mitigating its consequences. Risk could be managed through precautionary accumulation of buffer stocks and savings, which can be drawn during times of economic hardship. This is called self -insurance. Or it could be managed through cross-insurance, which refers to implicit or explicit arrangements for households with positive income shocks to send resources to households with negative income shocks.

Maxfield *et al.* (2010) states that labeling women as risk-averse limits the positive benefits both women and organizations can gain from their risk taking. The paper is to explore that women's risk taking and reasons for stereotype persistence in order to inform human resource practice and women's career development. The paper finds that there is no difference between the male and female when it comes to taking risky decisions. There is a misconception about the women that they cannot face the risky situation. The organization should analyze the amount of risk that can be taken by the women employee this will benefit the employer to judge a good manager. Analyses confirmed that several factors included in the survey, such as power, self-efficacy, and professional networks, impact women's risk-taking behaviour. The study explains that we can conclude that the women are more risk averse, they don't want to expose themselves on the undue risk, but when their participation is important than they are ready to take risky decision and it will also help in their career development..

Depending on different situations they are smart enough to take risk. Urge of power will help to adopt risky opportunities research on risk decision making suggests that women may contextualize more or in different ways than men.

Pandit and Yeoh (2014) state that recent findings in the finance and consumer behaviour literature have shown that investors' investment decisions are likely to be affected by their psychological tendencies. It becomes important as well, as relevant to the study the psychological tendencies of the investors so that the reason for the less participation can be studied well. So to increase their penetration it becomes important to judge their behavior correctly. Illusion of knowledge is a relatively well-researched phenomenon in investor psychology. It refers to the tendency for an investor to believe that the accuracy of his/her forecasts increases with more information; that is, more information increase one's knowledge about something and improves one's decisions. For the investment managers it is important to understand the risk taking abilities of the investors so that advices can be given based on their risk appetite. Thus risk profiling will help to build long term customers relationship, which will prove beneficial for the firm in the long term. In the field of finance, the degree of risk taken is the primary consideration in all investment decisions. There is a perceived trade-off between risk and return. Hence, the greater the amount of risk that an investor is willing to take on, the greater is the corresponding expected returns. The degree of risk accepted by the retail investors will help to judge the financial products which suits to his/her investment objective. Risk Profiling is an important step which must be taken before going for an investment decision.

The study of Iyer and kumar (2002) states that the study identifies the whole gamut of the investors psychology and the resultant behaviour in the stock market in general with particular reference to India. It has been stated that the study of human behavior is a complex process and many work has been conducted to make the study more relevant and effective. Despite of the fact there is dramatic development in various science, but the study of the psychology and psychiatry are much in a blooming phase or in a budding phase. The fact lies that human being don't want to reveal information about themselves to unknown entity. They don't wish to explore themselves. They fear from the fact that their weakness should not be known to the others. They don't wish to feel the pain of truth, so they want to be behind the curtain, when it comes to exploring themselves. The journey towards an effective understanding of human psyche has been a slow and difficult encompassing hundreds of years. Investors' attitude is quite important to study which moves from the entire spectrum from panic to frenzy, from pessimism to unbound optimism and history repeats itself. For this reason the study of investors' psychology becomes more interesting and compelling.

The study of Kulkarni (2014) says that this study attempts to find changes in investment decision with age, gender, income, education level, occupation, annual income, no of dependents. The purpose of the study is to help the investment managers understand the context of their client (individual investor) better and thereby be better placed to help the clients make conscious positive change in their investments. People make the best choices they can, given the limitations of their assumptions about themselves and their circumstances. Understanding of the

psychoanalytic orientations gives managers the opportunity to examine these assumptions, understand the origins of these assumptions in their client's lives, modify them if necessary, and help them make better choices for themselves. The investment managers can weigh in the psycho-analytical Orientation of the clients to understand them and their possible investment contexts better. With enhanced understanding of their psychological contexts, it would help them to engage with and realign their clients more effectively.

Charles and Kasilingam (2014) find emotion is one of the psychological factors which create biases among individual's investment decisions. The collected data are quantitatively analyzed by using AMOS, STATA, SPSS and SEM model. Findings of this study suggested that investor's emotion based intuitiveness affects their investment personality. They provide evidence that some psychological factors which stimulate investment biases among the investors. Emotion is the primary psychological factor which affects the rationality of investor's successful investment decisions. The present study used descriptive method to analyze and interpret data. Investor's cognition and emotions are considered to be two sides of a coin which determines investor's success and failure of their investments. This study brings to a close conclusion that investors who are influenced by intuitive emotions are not influenced by methodical and individualistic investment personality (Intuitiveness is not used in a productive way) i.e. investors are irrational in nature. The overall findings reveal that individual's emotions play a major role of determining their investment.) According to Efficient Market Hypothesis it is assumed that all

investors are well informed with all the informations available before making an investment decision, this comes under traditional economic theories. Emotions is one of the prime psychological factor which effects the individual decision making capability regarding investments. The study of emotional spheres of the investors becomes utmost important for the equity advisors so that they can help their clients in fetching more returns in the turbulent market conditions.

Saha and Dey (2011) state that it is important to study the behavior of the consumers before studying or evaluating the prospects of any product and it is an important area of research. Now a days what is an actual requirement of the consumer's need to be study before designing any financial product. The success of any mutual fund, a popular means of investment, depends on how effectively it has been able to meet the investor's expectation. It also attempts to point out the factors which must be taken into consideration before making any investment in mutual fund as well as focus should also be on the awareness level among individual investors regarding mutual fund investment. The present study helps to understand the objective for which investment has been made and at the same time analyzing the most preferred investment. It also helps to know the know-how of the mutual fund investment to the retail investors. The study also helps to understand about the information level of the investors in the mutual funds. AMCs can attract investors by designing products that ensure a reasonable return and ensure safety of the capital. The tax saving instrument would also prove to be lucrative if marketed effectively. There are diversified ranges of the product available in the market which provides reasonable options for an ordinary man to invest in the share market. The plethora of

schemes provides variety of options to suit the individual objectives whatever their age, financial position, risk tolerance and return expectations. In the past few years, there is a dramatic growth in the participation into mutual fund industries with many private players bringing global expertise to the Indian Mutual Fund industry. The Mutual Funds came as a respite to the investors who neither had the expertise nor the time to conduct a careful analysis before investing their hard-earned money.

The research study of Bennet *et al.* (2012) is to analyse the individual investor's sentiment and it also study the influence of market specific factors on investors' sentiment. It has been found that the investor's attitude towards investing is influenced by various factors like rumours, intuition, herd behaviour among investors and media coverage of the stock. The Market Specific Factors had a significant impact on the investors' sentiment in India. The investors' sentiment has been a subject of interest in the finance literature for a number of years. The noise traders behaviour has significant impact on the intrinsic value of the share price. They corner out the fundamentals of the company and they show their herd behaviour. Thus they are fail to take rational decisions in terms of making investment in stock market. They are mostly emotionally driven investors.

Parimalakanthi and Kumar (2008) states that due to slow economic development the retail investors prefer to make investments in gold as they see it as a hedge against inflation. Presence of slow job creation prompts households to make investments in gold. Risk appetite of the investors is also coupled with the global uncertainties which

landed them with poor or negative market returns. Indian financial market is considered to be highly impulsive, responsive and combative. The role and importance of individual investors and their trading behavior in Indian financial market is also imperative. The investor's education is immensely important for the present day investors. It is important to understand the risk appetite of the investors so as to provide them with correct or appropriate investment avenues. As it is known that the stock market is very sensitive and volatile so it becomes important to analyze the wholistic risk appetite of the individual investors. The focus of the study is to determine the factors which guides the behavior of the individual investors in Indian financial market, to list the Investment avenues available for making financial market investments, to find out the information seeking behaviour of Investors and their effectiveness, to Access the risk exposure, factors affecting the Investment decision and to find out the risk tolerance level of individual investors with respect to demographic variables. The study makes to understand that the average level of investment behaviour was found among the respondents and the investment behaviour was found to be better at the time of investment than before investment and post investment. From the study it has been outlined that the safety was the foremost preferred aspect among the fixed income segment and investment for safety. For the long term investments, capital appreciation is foremost important aspect. In liquid investments additional income in the form of interest was the most preferred aspect. . The factors namely gender and investment ratio in real estate does influence the investment behaviour. The pre-investment behaviour found to be significantly influencing factor of overall investment behaviour of the investors considered for the

study. The factor capital appreciation influences more on the long term and savings. In spite of availability of huge numbers of investments avenues in financial market individual investors are more inclined towards savings accounts, insurance policies, gold and silver. In this electronic era, no doubt, the electronic media and internet plays a key role in providing reliable information to the investors. The analysis also shows that education on investment is necessary to the investors in Coimbatore. The demographic profile like gender, age, domicile, marital status, education, occupation, family type and family size have significantly influence the investment behaviour.

The research study of Nayak and Sethi (2013) states that there is difference in pattern of saving and the determinants which affects the saving between the rural and urban region.. In rural areas, the marginal propensity to consume is more rather than the marginal propensity to save. To study on rural savings in India need to look into four aspects namely the determinants of savings, the composition of savings, the methods of measuring savings, and the pattern of saving. The saving can be most often determined by the demographic features like the sex ratio, the age distribution, and the rate of dependent population. Saving is determined by female's participation with respect to male participation and again the contribution in the saving comes from different age groups in the family and if it is optimum then the saving rate is determined in a different perspective. Saving is an important variable for every country to be studied for the economic growth and development of any country. Saving is an important macroeconomic variable to be studied under the purview of the economic arena on an individual as well as household basis. The present study

examines the determinants and pattern of saving behaviour in rural households of western Odisha. The objectives of the study is to examine and identify the determinants of the saving behaviour in rural households of Sundargarh district of Odisha, to examine the changing pattern of saving behaviour in rural households of Sundargarh district of Odisha. The study reflects considerable significance and non-significance of different variables which helped in analyzing the determinants of the saving behaviour in the rural households of the Sundargarh district of Odisha with respect to different determinants of saving behaviour. The different variables like the gender, age, primary occupation, educational qualification, possession of land, house type, number of family members and the marital status of the individuals has been analyzed by showing a relationship with different determinants affecting saving behaviour like change in savings, income of the individuals, income groups, mode of savings, future expectations of saving, income towards saving, type of savings, amount of savings, problem relating to saving, types of accounts available in banks, parental or own savings, wish to save each month and anytime got cheated from any financial institutions.

From the research study of Kannadhasan (2006) it is found that the Retail Investors' financial decisions are not always driven by due consideration. The decisions taken by the retail investors are not consistent in nature. The objective behind the behaviour of Retail investors is examined from their attitude and risk bearing capacity. This study, resides or exits on the behavioural pattern of Retail Investors, based on their

various dependent variables viz. Gender, age, marital status, educational level, income level, awareness, preference and risk bearing capacity.

The main objectives of the study is to assess the awareness of the potential retail investors on various avenues available in Indian capital market, about the measures taken by the government to protect the retail investors, to know the preference exercised by the retail investor among the various avenues, to analyze investment risk faced by retail investors in particular and to identify the problem faced by them in general. To study the risk appetite and attitudes of the retail investors in capital market, in context to time and resource constraint, the following three approaches have been adopted; Awareness, Preferences, Risk.

Yao *et al.* (2011) state that the importance of investment portfolio allocation has become more apparent since the onset of the late 2000s Great Recession. Individual willingness to take financial risks affects portfolio decisions and investment returns among other factors. Previous research found that people of different ages have dissimilar levels of risk tolerance but the effects of generation, period, and aging were confounded. Using the 1998–2007 Survey of Consumer Finances cross-sectional datasets, this study uses an analytical method to separate such effects on financial risk tolerance. Aging and period effects on financial risk tolerance were statistically significant. Implications for researchers and financial planning practitioners and educators are provided. This study proposes that the aggregate measure that has commonly been termed the “age effect” in fact consists of three different effects: the aging effect, the generation effect, and the period effect. Both aging and period capture

the passage of time. Aging, a measure at the individual level, generally leads to a decreased life expectancy and depreciation in human capital, which would be expected to lead to a lower probability to recover from investment losses. Therefore, as individuals age, they should become less willing to tolerate financial risks.

From the study of Srivastava (2012), traditional finance appears to play a limited role in understanding issues such as how do individual investors perform, how do they choose their portfolios, and why do returns vary across stocks for reasons other than risk. Finance education in general can be more useful if it sheds specific light on active investing by addressing aspects such as what mistakes to avoid while investing, and what strategies in financial markets are likely to work in terms of earning supernormal returns. These are the main pedagogical goals of behavioural finance, which allows for explanations of financial phenomena based on non-rational behavior amongst investors. This paper explores some of the unanswered important questions about stock markets that can be examined and investigated by an emerging field, behavioral finance. This study has focused on understanding the behaviour of households as investors in various financial instruments which are traded in SEBI regulated markets. Investors, today, are being loaded with information, thanks to the internet and the growing number of websites that are devoted to information on investment. The economic well being of an investor in the long run depends significantly on how wisely he invests. Investors have three objectives while investing their surplus money, namely safety of invested money, liquidity position of invested money, and return on investment in selected securities. An investor can be classified as individual or professional who manages the funds on behalf of others.

First there are inexperienced investor who needs to be properly advised about the intricacies of investment avenues and opportunities in corporate securities. Secondly, there are the experienced investors who understand the risks involved in the selected investment avenues and who need no advices from others, his response / order just to be executed without much time. Thirdly, there are occasional investors who seek advice and assistance once in a while with no desire to create a long term perspective. Depending on the risk profile of an investor, i.e. age profile and expected returns, proportion of each category of the total investment would vary. For instance, the risk appetite of a 24 year old person would be higher when compared to a 40-year-old working executive. For the former, the equity component is likely to be on the higher side and for the later, the real estate, fixed deposits and cash component would be proportionately higher. Investment in India has traditionally meant property, gold and bank deposits. The more risk-taking investors choose equity trading. This is a fact that a lot of research has been done to know the irrational behaviour of investors but there is a lot of scope from Indian investors' point of view. The investors form the backbone of any economy. By promoting the investment activity, the investors contribute to the generation of national income, prosperity of the society and higher standard of living of the citizens. They can contribute more in the development of Indian economy if their attitude towards investment decisions is analyzed properly. issue because they are conservative in nature and excessively rely on the government schemes. Indian infrastructure is entirely different from the infrastructure of developed nations. So the research must be done to know the actual reason of their

preference towards investment instruments. Behavioural approach can be useful in understanding the irrational decisions of Indian investors in stock market.

Bajtelsmit and Bernasek (1997) state that Several recent studies have found that women invest their pensions more conservatively than men(Bajtelsmit and VanDerhei, 1996; Hinz, McCarthy, and Turner, 1996) and that women are more riskaverse (Jianakoplos and Bernasek, 1996). Although these findings have serious implications for thewell-being of women in retirement, the reasons for observed gender differences are less well-defined.This paper surveys the existing literature regarding gender differences in investment and considers thepolicy implications of these differences. The authors provide a summary and organization of theexplanations for gender differences that have been offered in a variety of fields, including economics,sociology, education and gender studies.Investigation of gender differences in investing is a newarea of research in finance and economics. Because the research is at such an early stage, much remains to be done.Studies to date have not produced a clear understanding ofthe causes of observed gender differences and it is thereforetoo early to identify appropriate policy interventions.Nevertheless, popular beliefs regarding the causes of gender differences havemotivated policy-makers to createprograms designed to improve economic outcomes forwomenIf interventions are based on misconceptions regarding thecause of the risk-taking differences, then programs may beineffective in achieving desired outcomes and mayinefficiently allocate limited public resources. A priority forfuture research will be to more

thoroughly investigate the causes of gender differences to better inform policy makers and investment professionals.

Grable and Lytton (1999) explore conceptual, methodological, and empirical issues related to the development of a financial risk-tolerance assessment instrument. Financial risk tolerance is a significant factor in a number of household financial decisions, yet few recognized, valid, and reliable methods of assessment are available for use by financial service providers and educators. Empirical results from a multistage development of a 13-item risk assessment instrument are discussed. The multidimensional instrument is presented as the foundation for the development of a more widely used and accepted index. Future use by practitioners and researchers is encouraged to further validate the usefulness of the instrument. Financial service providers and researchers, in their respective roles as managers, consultants, and investors, share the common objective of quickly assessing individual financial risk tolerances and preferences (both their own and their clients). Unfortunately, according to Snelbecker et al. (1990) all too often financial service providers, researchers, and household financial managers have little more than qualitative descriptions and intuitive subjective judgments for use in understanding financial beliefs, feelings, needs, and aspirations that affect risk tolerances. Instead of relying on a standardized measure of risk tolerance or empirically tested risk and investment rules, many individuals rely on one-dimensional assessments, objective measures, and other heuristics to gauge their own or someone else's risk-taking propensities. As indicated above, these methods of risk assessment are less effective than using a

multidimensional risk-assessment instrument. The original 20-item, and the factor reduced 13-item, instrument extend previous research into risk assessment whereas offering a solid foundation in the development of a widely accepted instrument. Financial service providers, educators, and researchers are encouraged to use the instrument as a tool for quickly and accurately assessing the financial risk tolerances of clients and other respondents. Further tests of the instrument, both in random surveys and experimental settings, will lead to improved reliability and validity of the instrument, as well as to the eventual development of a financial risk-tolerance assessment instrument for use in private and public organizations. Ultimately the continued use, evaluation, and adaptation of this instrument will have a positive impact on the daily practices of financial service providers, and most importantly, on the lives of financial services clientele and constituencies.

Kumar and Lim (2008) examine whether the framing mode (narrow versus broad) influences the stock investment decisions of individual investors. Motivated by the experimental evidence, which suggests that separate decisions are more likely to be narrowly framed than simultaneous decisions, we propose trade clustering as a proxy for narrow framing. Using this framing proxy, we show that investors who execute more clustered trades exhibit weaker disposition effects and hold better-diversified portfolios. We also find that the degree of trade clustering is related to investors' stock preferences and portfolio returns. Collectively, the evidence indicates that the choice of decision frames is likely to be an important determinant of investment decisions.

This paper examines whether the framing mode influences the stock investment decisions of U.S. individual investors. Motivated by the extant experimental evidence, which suggests that separate decisions are more likely to be narrowly framed than simultaneous decisions, we propose trade clustering as a proxy for narrow framing. Using this framing proxy, we show that investors who execute more clustered trades exhibit weaker disposition effects and hold better-diversified portfolios. Because we use a narrow framing proxy instead of a direct framing measure, we conduct several robustness checks and show that the disposition effect–trade clustering and the diversification–trade clustering relations are robust and are not mechanically induced. We also show that investors who execute less-clustered trades exhibit a preference for small-cap and value stocks, and they earn higher raw returns but lower risk adjusted returns. Taken together, our results indicate that the framing mode is an important determinant of investors’ stock investment decisions. This evidence complements the theoretical research on narrow framing (e.g., Barberis and Huang 2007) and contributes to an emerging literature that attempts to identify the fundamental determinants of behavioral biases (e.g., Graham et al. 2006, Barberis and Xiong 2008). Our evidence also suggests that narrow framing would have broader influence on investors’ portfolio choices and trading decisions beyond its effect on risk attitudes (e.g., Benartzi and Thaler 1995, Gneezy et al. 2003, Barberis et al. 2006). Although our study does not examine the relation between narrow framing and stock returns, our empirical results suggest that investors’ framing choices are likely to have implications for stock returns. For instance, we find that investors’ stock preferences vary systematically with the degree of trade clustering. This evidence suggests that

the concentration of investors who are more likely to frame their decisions narrowly would vary with stock characteristics in a predictable manner. Thus, consistent with the theoretical predictions of Barberis and Huang (2001), those stocks might exhibit greater volatility and lower correlations with other stocks within the same category. We hope to examine these questions in our future research.

Daniela *et al.* (2002) review extensive evidence about how psychological biases affect investor behavior and prices. Systematic mispricing probably causes substantial resource misallocation. We argue that limited attention and overconfidence cause investor credulity about the strategic incentives of informed market participants. However, individuals as political participants remain subject to the biases and self-interest they exhibit in private settings. Indeed, correcting contemporaneous market pricing errors is probably not government's relative advantage. Government and private planners should establish rules *ex ante* to improve choices and efficiency, including disclosure, reporting, advertising, and default-option-setting regulations. Especially, government should avoid actions that exacerbate investor biases. We have argued that there is now persuasive evidence that investors make major systematic errors. We further argue, though it is not absolutely a prerequisite for most of our policy conclusions, that the evidence is persuasive that psychological biases affect market prices substantially. Furthermore, there are some indications that as result of mispricing there is substantial misallocation of resources in the economy. Thus, we suggest that economists should study how regulatory and legal policies can limit the damage caused by imperfect rationality. But do not hand the car keys to junior just

yet. Obviously, interest group politics distorts (or dominates) public discourse and government activity, with perverse results. Even if voters and officials sought solely to serve a broad public interest, there is no reason to think that regulators, politicians, courts, or individual voters are less subject to bias than are market prices F far from it. This suggests that detecting and responding to market pricing errors is not the government's relative advantage. Emotions and psychological biases in judgment and decision seem to have important effects on public discourse and the political process, leading to mass delusions and excessive focus on transiently popular issues. If individuals were fully rational in their market and political judgments, there would be a case for government intervention to remedy informational externalities in capital markets. The case against such intervention comes from the tendency for people in groups to fool themselves in the political sphere, and for pressure groups to exploit the imperfect rationality of political participants. These failings of the political process provide a case for creating political institutions that are tilted against governmental intervention in capital markets. This applies to the making of ex ante rules, and even more strongly to policies designed to correct alleged market mispricing ex post. However, we do argue that there is a good case for some minimally coercive and relatively low-cost measures to help investors make better choices and make the market more efficient. These involve regulation of disclosure by firms and by information intermediaries, financial reporting regulations, investment education, and perhaps some efforts to standardize mutual fund advertising. More controversially, a case can be made for regulations to protect foolish investors by restricting their freedom of action or the freedom of those that

may prey upon them. Limits on how securities are marketed and laws against market manipulation through rumor-spreading may fall into this category.

Chapter-3

Objectives, Hypotheses and Methodology

3.1. Overview:

This Chapter of the Thesis figures out the research gap on the basis of the review of existing literature presented in Chapter-2. To fill the gap in research, a set of Objectives have been set, followed by research Hypotheses. Appropriate Research Methodology has been designed as a framework to meet the set Objectives, (testing the Hypotheses).

3.2. Problem Statement:

On the basis of the existing literature surveyed, the problem statement is defined and research gap has been identified which is the basis of this thesis. Details of a few relevant literatures that contributed for the purpose are presented below.

| Literature Details | Gist of the Literature | Gap | Points taken for this Research |
|--|--|---|--|
| <p>Title: An Empirical Investigation of the Relation between Risk Tolerance and Socioeconomic Characteristics Of Individual Investors,</p> <p>Source: Advances in Management Vol.4(10) oct.(2011); Syed Tabassum Sultana¹* and Prardhasaradhi S.2</p> | <p>Assessment of risk tolerance is essential for optimum asset allocation within an investment portfolio.</p> <p>Low risk tolerance investors may face opportunity losses for not investing in stocks.</p> <p>Demographic profile of respondents has been mapped with risk tolerance capabilities</p> <p>Most investors are reluctant to disclose their investment details so referral sampling method is used.</p> <p>Self Employed investors have high risk taking capabilities, due to their inherent characteristics like self-confidence, high motivation and persistence as compared</p> | <p>Risk tolerance capacity of the respondents has been ascertained on financial facet only.</p> <p>Geographically, the study is confined to Metro city in India</p> | <p>The pattern of ascertaining risk tolerance capacity has been followed</p> <p>Referral Sampling has been preferred.</p> <p>Influence of Demographic profile on risk tolerance has been highlighted</p> |

| | | | |
|--|---|---|---|
| | to salaried class investors. | | |
| Title: Factors Influencing Indian Individual Investor Behaviour: Survey Evidence Source: Decision, Vol.39,No.3, December,2012; Abhijeet Chandra, Ravindra Kumar | <p>Indian individual investors are more susceptible to psychological biases while making decision in financial market.</p> <p>More emphasis is given in understanding behaviour of institutional investors belonging to big cities and metros thus ignoring individual investors.</p> | <p>Considering the psychological biases of the Indian individual investors, the study is hovered around only institutional investors</p> | <p>To mitigate psychological biases, multiple facets (besides financial facet) have been considered and individual investors of a small city like Ranchi (India) has been surveyed.</p> |
| <p>An Empirical Investigation For Determining Of The Relation Between Personal Financial Risk Tolerance And Demographic Characteristic</p> <p>Source: Ege Akademik Bakis / Ege Academic Review 10(2) 2010: 503-523; Adem Anbar and Melek Eker</p> | <p>Financial risk tolerance is one key element which should be considered in making investment decision.</p> <p>Investors with more risk averse attitude have lower financial risk tolerance and vice-versa.</p> | <p>Only financial facet has been considered</p> | <p>Laid foundation for clustering the respondents (investors) on the basis of risk appetite score developed considering multiple facets</p> |
| <p>Title: An Empirical Investigation of Personal Financial Risk Tolerance.</p> <p>Source: Financial Services Review 13(2004) 57-78; Robert W.Faff, Terrance Hallahan and Michael D. McKenzie</p> | <p>Risk Tolerance of investors is considered important and the same has been mapped with demographic factors.</p> <p>There is difference between self-assessed risk tolerance and risk tolerance score.</p> <p>Most of the time, investors underestimate their risk tolerance level due to which they suffer from the opportunity loss.</p> | <p>While assessing the risk tolerance capacity, simple index has been constructed without assigning weights to different aspects</p> | <p>Risk appetite score has been ascertained in an indirect way putting questions from multiple facets.</p> <p>Weighted risk tolerance score has been computed.</p> |
| <p>Title:Influence of demographic profile of equity investors on their level of awareness about equity market (2012)</p> <p>Source: The International Journal Of Management(ISSN 2277-5846); Tarak Paul &Sitesh Bajaj</p> | <p>Most of the existing equity investors' possess a moderate level of awareness about equity market.</p> <p>Demographic factors have been considered</p> | <p>Although lack of awareness about this mode of investment has been identified, how to tide over that is beyond the purview of this research</p> | <p>Suggestions to enhance the awareness on equity market in stock market has been taken up in this thesis</p> |

Literature surveyed for this research, in nutshell, exhibits that;

- 1) Researchers have studied the investors' investment pattern and risk tolerance capacity of the Investors in metros and big cities but small cities like Ranchi (India) has not been coming under the purview of such researches and the investors of cities like Ranchi are not alike that of metros.
- 2) Existing literature surveyed so far depicts a wide spectrum of tools assessing risk tolerance capacity of investors in optimum asset allocation within an investment portfolio and consequential opportunity losses or gains for not investing in stocks. But a concrete approach to assess the investors' attitude towards the risk toleration, as a whole, has been missing.
- 3) While a host of researchers have studied investors in Indian stock market for assessing the depth of investment and another set studied non-investors to highlight the incidence of investment by unfolding why respondents don't prefer to invest in Indian stock market, a comprehensive study considering both incidence and depth of investment is lacking.
- 4) As filler, this study putting a set of questions from different facet to each investor with quantified weight attached to every option so as to ascertain wholistic risk tolerating capacity. After assessing the risk tolerating capacity, the investors studied are clustered and the strategies are developed accordingly for different clusters.

And for incidence of investment, a set of non-investors of stock market has been surveyed to find out why they don't go for investing in Indian stock market.

3.3 Objectives:

The Objectives of this study are as follows;

- 1) To study the pattern of investment (including return expectations) of retail investors' based at Ranchi
- 2) To develop risk appetite scores for retail investors of different background and cluster them in accordance with risk appetite scores.
- 3) To find out whether risk appetite scores of investors are dependent on their demographic profiles.
- 4) To devise strategies for different clusters on the basis of risk appetite score in order to stretch the depth of investment in Indian stock market.
- 5) To unfold fold why non-investors don't prefer to invest on equity; for stretching the incidence.

3.4. Hypotheses:

3.4.1. Pertaining to Investment Pattern of Retail Investors-

H0 (1): The pattern of investment (the way they put their surplus income) by the respondents (investors) is not influenced by the risk involved in the avenues of investment.

H1 (1): The pattern of investment by the respondents (investors) is influenced by the risk involved in the avenues of investment.

3.4.2. Pertaining to Ascertaining Risk Appetite Scores of the Respondents-

H0 (2): Weighted Risk Appetite Scores of the respondents are not reasonably high (More than 60%)

H1 (2): Weighted Risk Appetite Scores of the respondents are reasonably high

3.4.3. Pertaining to Demographic Data vis-à-vis Risk Tolerance Capacity of the Respondents-

H0 (3): Gender does not influence risk tolerance of the respondents. In other words, there is no significant difference between two genders concerning their impact on risk tolerance, i.e., Male = Female.

H1 (3): Gender influences risk tolerance of the respondents.

H0 (4): Age-group does not influence risk tolerance of the respondents. In other words, there is no significant difference among different age-groups concerning their impact on preference, i.e., below 18 = 18-35 = 36-53 = 54-71 = 72 and above.

H1 (4): Age-group influences risk tolerance of the respondents.

H0 (5): Educational qualification does not influence risk tolerance of the respondents. In other words, there is no significant difference between the different educational qualifications concerning their impact on risk tolerance, i.e., below 10th = 10th = 10 + 2 = graduate = post graduate = professional.

H1 (5): Educational qualification influences risk tolerance of the respondents.

H0 (6): Number of family members of the respondents does not influence risk tolerance. In other words, there is no significant difference between four levels of number of family members concerning their impact on risk tolerance, i.e., below 3 = 3 - 5 = 6 - 8 and 9 & above.

H1 (6): Number of family members influences risk tolerance.

H0 (7): Occupation of the respondents does not influence risk tolerance of the respondents. In other words, there is no significant difference between six levels of occupation concerning their impact on risk tolerance, i.e., Business = Govt. Job = Private job = self employed = ex-serviceman = homemaker.

H1 (7): Occupation influences risk tolerance of the respondents.

H0 (8): Income level of the respondents does not influence risk tolerance of the respondents. In other words, there is no significant difference between five income levels concerning their impact on risk tolerance, i.e., below 2 lakh = 2 – 4 lakh = 4 – 6 lakh = 6 – 8 lakh = more than 8 lakh

H1 (8): Income level influences risk tolerance of the respondents.

3.4.4. Pertaining to Strategies for different Clusters of Respondents-

H0 (9): Same set of strategies to be developed for all respondents to stretch the depth of investment as there won't be base for having multiple clusters of respondents.

H1 (9): Different set of strategies to be developed for different clusters of respondents to stretch the depth of investment.

3.4.5. Pertaining to Non-Investors' no preference to invest on equity-

H0 (10): Lack of knowledge of the non-investors (respondents) is not the cause of not preferring investment on equity.

H1 (10): Lack of knowledge of the non-investors (respondents) is the cause of not preferring investment on equity.

H0 (11): Lack of risk taking capacity of the non-investors (respondents) is not the cause of not preferring investment on equity.

H1 (11): Lack of risk taking capacity of the non-investors (respondents) is the cause of not preferring investment on equity.

H0 (12): Lack of Surplus Income of the non-investors (respondents) is not the cause of not preferring investment on equity.

H1 (12): Lack of Surplus Income of the non-investors (respondents) is the cause of not preferring investment on equity.

H0 (13): Lack of time to be vigilant every now and then by the non-investors (respondents) is not the cause of not preferring investment on equity.

H1 (13): Lack of time to be vigilant every now and then by the non-investors (respondents) is the cause of not preferring investment on equity.

H0 (14): Negative word of mouth on returns on investment in Indian Stock Market is not the cause of not preferring investment on equity.

H1 (14): Negative word of mouth on returns on investment in Indian Stock Market is the cause of not preferring investment on equity.

H0 (15): Non-investors' (respondents') Fear of being cheated is not the cause of not preferring investment on equity.

H1 (15): Non-investors' (respondents') Fear of being cheated is the cause of not preferring investment on equity.

H0 (16): Stock Market Volatility is not the cause of Non-investors' (respondents') no preference towards investment on equity.

H1 (16): Stock Market Volatility is the cause of Non-investors' (respondents') no preference towards investment on equity.

H0 (17): Misleading data on market is not the cause of Non-investors' (respondents') no preference towards investment on equity.

H1 (17): Misleading data on market is the cause of Non-investors' (respondents') no preference towards investment on equity.

3.5. Methodology:

The study is an empirical one concerning the depth and incidence of investment in Indian Stock Market. For the purpose, the primary data is collected from; a) the retail investors on their trading pattern, risk appetite and behavioural facets that determine the investment decisions and b) the non-investors on why they don't prefer to invest

on equity . On the backdrop of this, there has been concrete information about the stock markets of India containing types of market, the way of functioning, scope and perceptions of investors from secondary sources.

3.5.1. For studying the trading pattern of retail investors, 390 retail investors are surveyed for knowing;

- a) The investable capacity of the investors
- b) Whether the investors are first timer or matured
- c) Whether they get actively involved in trading
- d) Whether they are traders or investors
- e) How frequently they invest
- f) Whether they invest for need or take investment as an adventurous move
- g) Whether they are well-informed investors or mere speculators
- h) Whether they are investors of their own or due to persuasion/moral pressure.

3.5.2. For developing risk appetite score for retail investors;

A Questionnaire, capturing multiple facets of human behavior in the form of 10 questions with five options each, has been administered on 390 investors to know their risk tolerance capacity and quantification is done by assigning a score to them (on the basis of literature surveyed) so as to know whether their risk appetite is high or low or moderate. Facets identified and put in the questionnaire are based on the

literature surveyed and the same is presented in the Questionnaire annexed towards the end of the thesis. On each facet, five options are given and each option has been assigned with a risk tolerance score. Score is zero if the option is risk free; it is 25, if there is some amount of risk is there in the option; it is 50, if the risk involved in the option is moderate; it is 75, if the risk involved in the option higher than the moderately riskier and it is 100, if the risk involved in the option is the most. Respondents have ticked an option without knowing the risk score attached to the options. Each question/facet has also been weighted on the basis of risk involved in the each facet/question. Question/facet with least level of risk is given weight 1 and the question/facet with most level of risk is given weight 10 (as 10 facets have been identified). Weighted Risk Tolerance Score of an individual (respondent) in a facet has been ascertained by multiplying the risk tolerance score of the option selected with the weight of the facet (i.e., $RTS \times W$)

3.5.3. For Mapping Demographic Data vis-à-vis Risk Tolerance Capacity of the Respondents;

For ascertaining whether demographic factors influence the risk tolerance capacity of the respondents, the independent variables taken are demographic factors such as; Gender, Age-Group, Educational Qualification, Number of Family Members, Occupation and Income level. And the dependent variable taken is the risk tolerance capacity, i.e., Weighted Risk Tolerance Score (RTS_w). RTS_w of an individual (respondent) in a facet has been ascertained by multiplying the risk tolerance score (RTS) of the option selected with the weight of the facet (i.e., $RTS \times W$). All the

respondents' RTSw has been calculated in the similar fashion and they have been presented in the form of a rating scale as given below so as to test the hypotheses through ANOVA.

| Range of RTSw | Converted Rating |
|---------------|------------------|
| 0-20 | 1 |
| 21-40 | 2 |
| 41-60 | 3 |
| 61-80 | 4 |
| 81-100 | 5 |

3.5.4. Pertaining to Strategies for different Clusters of Respondents-

On the basis of RTSw, Respondents (Investors) studied are segregated into three clusters; a) Investors with High Risk Appetite (i.e., the range of RTSw 60 and above), b) Investors with Moderate Risk Appetite (i.e., the range of RTSw less than 60 but \geq 40) and c) Investors with Low Risk Appetite (i.e., the range of RTSw less than 40). For framing the strategies, a Focused Group Discussion has been conducted considering 10 experts, i.e., fund managers, trainers, certified financial planners and experienced finance professors.

3.5.5. Pertaining to Non-Investors' no preference to invest on equity-

Primary data has been collected from 390 non-investors through a questionnaire capturing 'why they don't prefer to invest on equity?' Independent variables

identified, on the basis of literature surveyed, are; 1) Lack of knowledge, 2) Lack of risk taking capacity, 3) Lack of Surplus Income, 4) Lack of time to be vigilant every now and then, 5) Negative word of mouth, 6) Fear of being cheated, 7) Stock Market Volatility and 8) Misleading data.

Standardized Regression Coefficients have been computed to prioritize the variables that are identified in the context of preference of not investing on equity.

In order to substantiate the findings regarding why people don't invest in Indian Stock Market, opinions of 10 experts (financial advisors and marketing executives of different brokerage houses) who have direct interface with the potential investors and work for stretching the incidence of retail investment in Indian Stock Market, have been collated through a Focus Group Discussion (FGD) .

Chapter-4

Pilot Survey

4.1. Overview:

This chapter provides specific details of the Pilot Survey conducted in order to test and standardize the Questionnaire before going for the main Study. 10 investors and 20 non-investors have been considered for the Pilot study. The details of the Pilot Survey and the take away from the Pilot to main Study are there in this Chapter.

4.2. Study on Investors:

To develop risk appetite scores for retail investors of different background, the pilot study was done for 10 retail investors of Ranchi. The questionnaire has been administered on 10 retail investors of Ranchi in Indian Stock Market the way it has been revealed in a previous section, i.e., the methodology. The questionnaire was having 10 questions from 10 different facets of human activities.

One of those questions used for this pilot study have been presented below.

| Questions with Options to Tick | Risk Tolerance Score (was not shown to the Respondents but was used in Analysis) | Weight of the Question (was not shown to the Respondents but was used in Analysis) |
|---|---|---|
| Q1. You take a job at a fast-growing company and are offered the following choices. Which one would you pick? | | 7 |

| | | |
|---|------------|--|
| a) A conventional form of employment contract of working till the retirement age with normal course of prospects | 0 | |
| b) A five year employment contract with an option with a potential to earn a bonus of 50% depending on company performance | 25 | |
| c) A five year employment contract with the option to use your 50% bonus accrued to buy the company's shares at a set price | 50 | |
| d) A one year contract with a potential to earn a bonus depending on company performance | 75 | |
| e) A one year contract with the option to use your bonus to buy the company's shares at a set price | 100 | |

The options of each question have been assigned with a score on the basis of the degree of risk inherent to each option. It has been developed in a 5-point scale (100, 75, 50, 25, 0), i.e., the most risky option with 100 score and the least risky option with 0 score. Again, since all the questions are not at par as regards to the level of risk involved in them, they have been weighted in a descending order, i.e., the most risky question has been weighted as 10 (out of 10 questions) and the least risky question has been weighted as 1. However, the questionnaire used for survey was not containing the risk score and weights.

4.2.1. Analysis:

The analysis is done separately for each investor to develop a risk appetite score. One case is presented below.

Table 4.1. Risk Appetite Score of Pilot Respondent (Investor) No. 1

| Question No. | Risk Appetite Score (R_s) | Weight (W) | Weighted Score ($R_s w$) |
|-------------------------------|---|-------------------|--|
| 1 | 50 | 7 | 350 |
| 2 | 100 | 1 | 100 |
| 3 | 0 | 9 | 0 |
| 4 | 50 | 10 | 500 |
| 5 | 25 | 8 | 200 |
| 6 | 25 | 2 | 50 |
| 7 | 50 | 6 | 300 |
| 8 | 75 | 3 | 150 |
| 9 | 25 | 4 | 100 |
| 10 | 50 | 5 | 250 |
| | | $\sum W = 55$ | $\sum R_s w = 2000$ |
| Weighted Average Score | | | 36.36 |

Source: Primary Data

The consolidated score sheet developed by the analysis done as above of all 10 investors are presented below.

Table: 4.2. Consolidated Risk Appetite Score Table

| Respondent Sl. No. | Weighted Average Score (i.e., Risk Appetite Score) |
|---------------------------|---|
| 01. | 36.36 |
| 02. | 15.45 |
| 03. | 23.18 |

| | |
|-----|-------|
| 04. | 28.18 |
| 05. | 17.72 |
| 06. | 12.27 |
| 07. | 17.27 |
| 08. | 23.63 |
| 09. | 18.63 |
| 10. | 23.63 |

Source: Primary Data

4.2.2. Findings:

From the analysis done above, it is clear that the risk appetite score of 10 investors studied varies between 12.27 to 36.36. In absolute sense, although the risk appetite scores wholistically is not that appreciable, the spread in the present context is bit scientific. However, with the available scores, if we cluster them on the basis of their risk appetite score, we may have the following three clusters; 1) Cluster-A (High Risk Appetite): Score Range; 12 – 20, 2) Cluster-B (Moderate Risk Appetite): Score Range; 21 – 29 and 3) Cluster-C (Low Risk Appetite): Score Range; 30 – 38. The spread of cases on different clusters is present in the table given below.

Table: 4.3. Clusterization of Investors on the basis of Risk Appetite

| Cluster | No. of Investors |
|--|-------------------------|
| Cluster-A (Investors with High Risk Appetite) | 01 |
| Cluster-B (Investors with Moderate Risk Appetite) | 04 |
| Cluster-C (Investors with Low Risk Appetite) | 05 |

Source: Primary Data

Cluster-wise findings are presented below.

Cluster-A: Although the investor in this cluster belongs to relatively lower income-group, his investment pattern matches to his wholistic risk appetite as ascertained in this paper. It is found that he used to put around 25% of his investible surplus in Indian stock market, that too, in long term investment. It seems investors with higher wholistic risk appetite score can be channelized for more investment in stock market devising effective customized strategies for them on the basis of technical support.

Cluster-B: All four investors in this cluster are well-educated and better-off as regards to their earnings. But lack of awareness and influence of negative word of mouth leading to a false impression on investing in the stock market, i.e., equivalent to getting involved in gambling, has insisted them to go for conventional modes of investment like bank fixed deposits instead of going for investing in stock market. It seems, they do have capability to invest in stocks but their mediocre wholistic risk appetite followed by judgmental approach land them into this cluster.

Cluster-C: Out of five investors in this cluster, two are retired persons whose income level is good devoid of any considerable liability. But owing to their conservative outlook, although they have Demant Account in the bank, they do not trade in stock market. In fact, most of their investment goes to conventional mode and a small fraction put into Mutual Fund. Two more investors from this cluster belong to well-to-do community and the fact reveals that nearly 20% of their investible surplus goes to stocks. However, their wholistic risk appetite score is low owing to their high concern for the questions related to risk involved in life. Thus it is inferred that these two can be tapped for investing more in stocks. In fact, this type of investors may demand life insurance for the investors investing in stocks which may be the trump card for the success of the stock market in future. The remaining one investor in this

category belongs to lower income group but he has more than required level of aggression depending upon the mood. This type of investors can be capitalized for short-term investment.

4.2.3. Inference:

After the detailed survey on the behavior of retail investors belongs to different age group, profession, gender and annual income, we arrived at the fact that the retail investors of Ranchi are very keen to maximize their return but more or less at the cost of moderate risk only. It is also very interesting to know that retail investors are really least interested to invest in stock market and the reason behind this peculiar behaviour is, more or less, the lack of their exposure to stock market. They don't let their money to be played through others hand without any promise and commitment on return. Moreover, it seems that the word of mouth about the individual losses in stock market has created an impression of investing in stock market means putting money in gambling. On the other hand, they are very much confused to get positive inflation adjusted return. It reflects that they are aware of actual rate of return (Rate of Return less Inflation) but they are highly disappointed for the fact that their actual rate of return is negative.

While giving open comment related to their feelings on functioning of stock market, they revealed that the initiatives to be undertaken by SEBI on the awareness programme of investors at Ranchi should be intense and far-reaching. Moreover, they feel that there should be Certified Financial Planner with a proven track record at Ranchi to safeguard the interest of the investors. Although the investors are ready to bear the consultancy fees and portfolio management fees, it is very much painful for them as they are deprived of having the support as required, owing to absence of anybody to fill the gap. As a result, most of the retail investors are forced to stick to conventional modes of investment like investing in bank Fixed Deposits.

The most excruciating fact uncovered from the pilot study that the investors invested in ULIP finally ended with negative return as a contradiction to the IRDA guidelines. Amidst all these disappointing facts, the fact that gives a ray of hope for retail of investors at Ranchi is the SIPs as claimed by the investors. Some cautious investors who had gone for SIPs of leading Mutual Fund Houses had appropriated unexpected higher return. Owing to this, they have developed a thumb rule for themselves, i.e., to get the inflation adjusted positive return in today's market, one has to go through the route of SIPs in leading Mutual Fund Houses in the long run.

It's felt that in order to stretch the incidence and depth of retail investment in Ranchi concerning Indian Stock Market, the investors are to be informed about their risk tolerating capacity and they are to be trained adequately about the functioning of the Indian Stock Market.

4.2.4. Take Away from the Pilot Study:

On the basis of responses of the pilot sample units, the portion of the questionnaire kept for cluster analysis was removed for the main study and it was decided to make the clusters of the investors on the basis of weighted risk tolerance scores of the investors.

4.3. Study on Non-Investors:

Since incidence of investment on equity is very poor in cities like Ranchi (India), it was a necessity to study why potential investors don't prefer to invest on equity. For that purpose, a Pilot Study was conducted on 20 non-investors (who don't invest in Indian Stock Market) with savings potential. On the basis of existing literature, eight

independent variables have been identified that might restrict a potential investors to go for investing in Indian Stock Market. Standardized Regression Coefficients for each variable have been calculated in order to prioritize the variables that restrict a non-investor to remain non-investor.

4.3.1. Prioritization of the Variables (that restrict a non-investor to invest) using Standardized Regression Coefficients:

In this section of the present Study, the Criterion Variable is that I am not investing on equity and will never invest on it for which eight predictor variables related to factors which acting as barriers for not investing and on which the data has been collected are;

V₁: I don't invest on equity because; it's not my thing as I lack knowledge (Lack of knowledge)

V₂: I don't invest on equity because; I don't have requisite level of courage to take risk (Lack of risk taking capacity)

V₃: I don't invest on equity because; I don't have enough surplus income to invest in stock market (Lack of surplus)

V₄: I don't invest on equity because; I don't have time to even think about it since I am doing job/business and running behind other things like passion/return on investment (Lack of time to be vigilant every now and then)

V₅: I don't invest on equity because, as per word of mouth, those who invest in equity, they usually lose their principal even (Negative word of mouth)

V₆: I don't invest on equity because, I have the fear of being cheated by financial advisors and/or companies going bankrupt (Fear of being cheated)

V₇: I don't invest on equity because, I hate the stock market volatility (Stock Market Volatility)

V₈: I don't invest on equity because, data available on equity investment is so confusing, it's really difficult what to believe and what not (Misleading data)

As stated earlier, the objective of this section of the study is to prioritize the factors which are acting as barriers for not investing in equity. For the purpose, standardized regression coefficients (Beta values) have been considered.

Table: 4.4. Standardized Regression Coefficients

| Coefficients^a | | | | |
|---------------------------------|----------------|------------------------------|------------|---------------------------|
| Model | | Un-standardized Coefficients | | Standardized Coefficients |
| | | B | Std. Error | Beta |
| 1 | (Constant) | 4.284 | .652 | |
| | V ₁ | .032 | .083 | .034 |
| | V ₂ | .032 | .063 | .033 |
| | V ₃ | .018 | .056 | .019 |
| | V ₄ | .013 | .060 | .013 |
| | V ₅ | .019 | .049 | .018 |
| | V ₆ | .035 | .052 | .032 |
| | V ₇ | .039 | .026 | .038 |

| | | | | |
|--|----------------|------|------|------|
| | V ₈ | .016 | .036 | .021 |
| a. Dependent Variable : V ₉ | | | | |

Source: SPSS Output

Where V₉ is that I am not investing on equity and will never invest on it.

We know that the standardized regression coefficients (Beta) is a measure of how strongly each predictor variable influences the criterion variable and the higher the beta value the greater the impact of the predictor variable on the criterion variable.

Table 4.4 reveals that β value for V₇ is the highest, i.e., 0.038. It exhibits that the said predictor variable has highest level of impact on the criterion variable. In fact, the variable, i.e., ‘Stock Market Volatility’ has high level of impact on not investing on equity and will never invest on it. Similarly, the β value for V₄ is the lowest, i.e., 0.009. It means, the variable – ‘Lack of time to be vigilant every now and then’ has the least level of impact on not investing on equity and will never invest on it.

Thus, out of the eight variables identified, on the basis of degree of influencing positively not investing on equity and will never invest on it, the priority list is as follows; V₇, V₁, V₂, V₆, V₈, V₃, V₅, V₄.

4.3.2. Reliability Statistics:

| Reliability Statistics | |
|------------------------|------------|
| Cronbach's Alpha | N of Items |
| 0.622 | 8 |

Source: SPSS Output

Cronbach's alpha was used for testing the factors for internal reliability. The Cronbach's alpha of 0.6 or greater is considered reliable and is deemed useful for

further analysis as part of a specific variable. Since the Cronbach's alpha is 0.622, the variables incorporated in the Questionnaire are valid and reliable.

4.3.3. Take Away from Pilot Study:

Open-end questions put in Pilot Questionnaire, for getting any opinion on why they don't invest, were not responded and on enquiry, it was said that nothing more to say as all the points had been captured in the close-ended questions. Mapping of demographic factors with the responses on investment was not thought of in the Pilot Study with the perception that demographic factors don't influence responses. But the perception was proved wrong.

Thus from the Questionnaire meant for non-investors (and used in Pilot), open-end questions were removed and questions were placed to trace the demographic data.

Chapter-5

Pattern of Investment by Retail Investors

5.1. Overview:

This chapter analyses the pattern of investment done by the retail investors of Ranchi (Jharkhand, India). It exhibits how the respondents (investors) behave concerning; Percentage of Income of the respondents Spent on Investment, Avenues opted for Utilization of Saving Volume, Primary goal for the funds in Respondent's Investment Account, Main Objective of Investment, Preference of Respondents' Exposure amidst volatility of returns, Preferred Time Period for Investment, Frequency of Checking the Performance and Status of the Fund and Source of Collection of Information on Funds.

5.2. Percentage of Income Spent on Investment

Percentage of income of the respondents spent on investment is presented in table 5.1 and figure 5.1.

| Table: 5.1. Percentage of Income Spent on Investment | |
|---|---------------------------|
| % of Income | No. of Respondents |
| Less than 10% (1) | 33 |
| 10-20% (2) | 77 |
| 20-30% (3) | 146 |
| 30-40% (4) | 84 |
| More than 40% (5) | 50 |
| Total | 390 |

Source: Primary Data

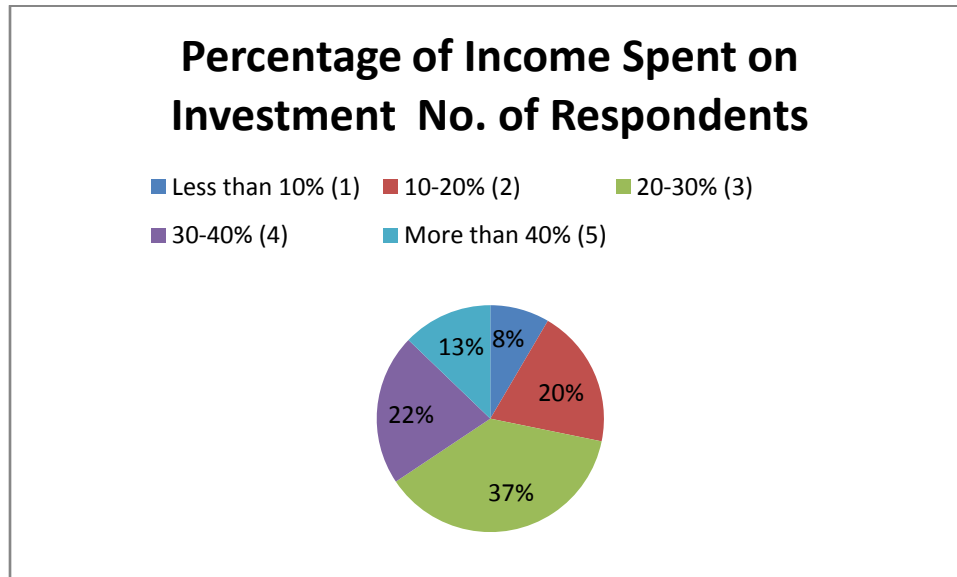


Figure: 5.1. Percentage of Income Spent on Investment; Source: Primary Data

It is found that highest % of respondents (37%) invest 20-30% of their income.

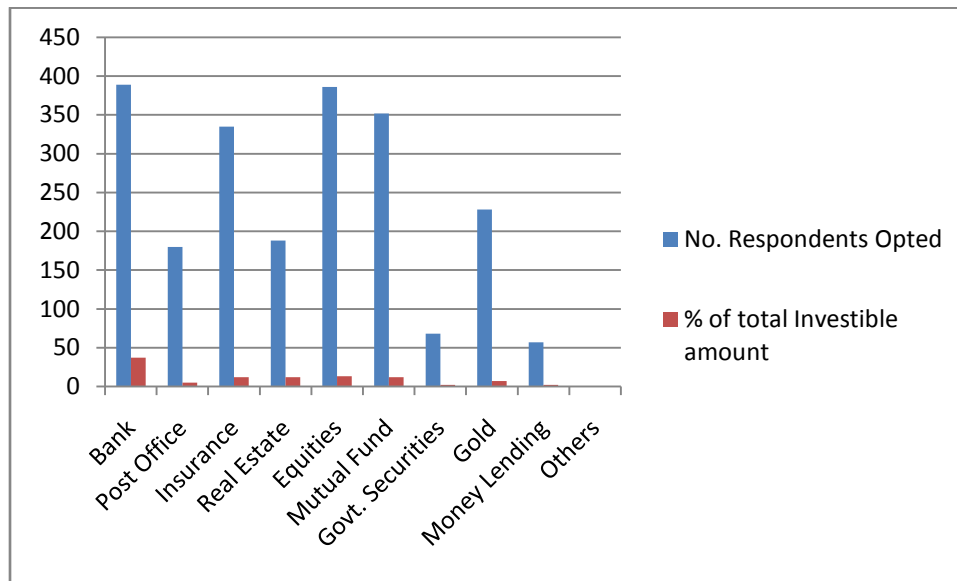
5.3. Avenues opted for Utilization of Saving Volume:

Responses of the investors studied on avenues opted for Utilization of Saving Volume is presented in table 5.2 and figure 5.2.

| Table: 5.2. Avenues opted for Utilization of Saving Volume | | |
|---|------------------------------|---|
| Avenue | No. Respondents Opted | Average % of total Investible amount |
| Bank (FD) | 389 | 37 |
| Post Office | 180 | 5 |
| Insurance | 335 | 12 |
| Real Estate | 188 | 12 |
| Equities | 386 | 13 |
| Mutual Fund | 352 | 12 |
| Govt. Securities | 68 | 2 |
| Gold | 228 | 7 |
| Money Lending | 57 | 2 |
| Others | 0 | 0 |

Source: Primary Data

Figure: 5.2 Avenues opted for Utilization of Saving Volume



Source: Primary Data

It is seen that highest percentage of respondents prefer to park their surplus income in Banks and also average % of investible amount (of all who are parking surplus in banks) is highest in Banks.

5.4. Primary goal for the funds in Respondent's Investment Account:

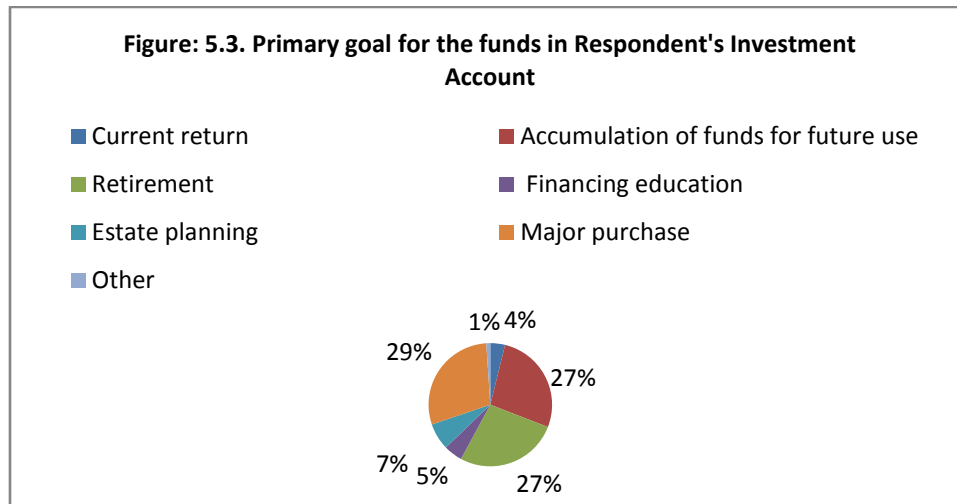
Major purchase followed by accumulation of funds and preparedness for retirement is

Primary goal for the funds in Respondent's Investment Account as presented in Table 5.3 and figure 5.3.

| Table: 5.3 Primary goal for the funds in Respondent's Investment Account | |
|---|---------------------------|
| Goal | No. of Respondents |
| Current return | 11 |
| Accumulation of funds for future use | 77 |
| Retirement | 77 |

| | |
|---------------------|----|
| Financing education | 14 |
| Estate planning | 20 |
| Major purchase | 83 |
| Other | 3 |

Source: Primary Data



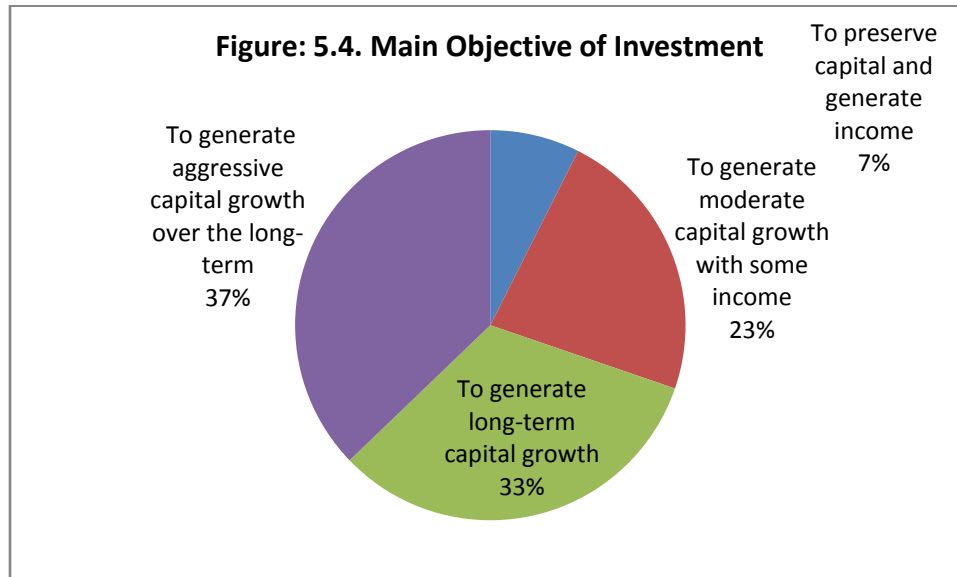
Source: Primary Data

5.5. Main Objective of Investment:

As presented in Table 5.4 and figure 5.4, major objective of the most of the respondents is to generate aggressive capital growth over the long-term followed by generating long-term capital growth.

| Table: 5.4 Main Objective of Investment | |
|--|---------------------------|
| Objective | No. of Respondents |
| To preserve capital and generate income | 29 |
| To generate moderate capital growth with some income | 89 |
| To generate long-term capital growth | 127 |
| To generate aggressive capital growth over the long-term | 145 |

Source: Primary Data



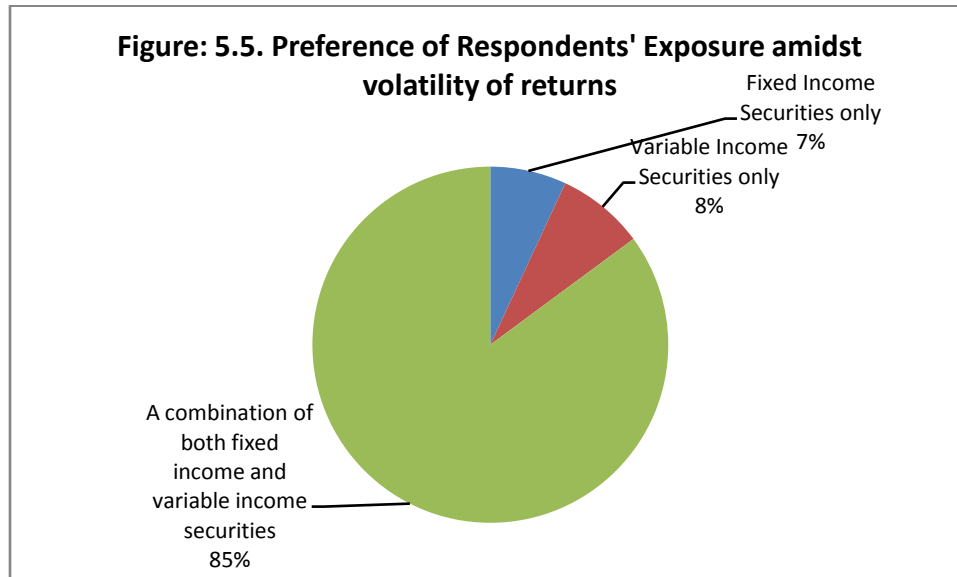
Source: Primary Data

5.6. Preference of Respondents' Exposure amidst volatility of returns:

As it is seen from table 5.5 and figure 5.5, a great percentage of respondents prefer a combination of both fixed income and variable income securities.

| Table: 5.5. Preference of Respondents' Exposure amidst volatility of returns | |
|---|---------------------------|
| Type of Exposure | No. of Respondents |
| Fixed Income Securities only | 27 |
| Variable Income Securities only | 31 |
| A combination of both fixed income and variable income securities | 332 |

Source: Primary Data



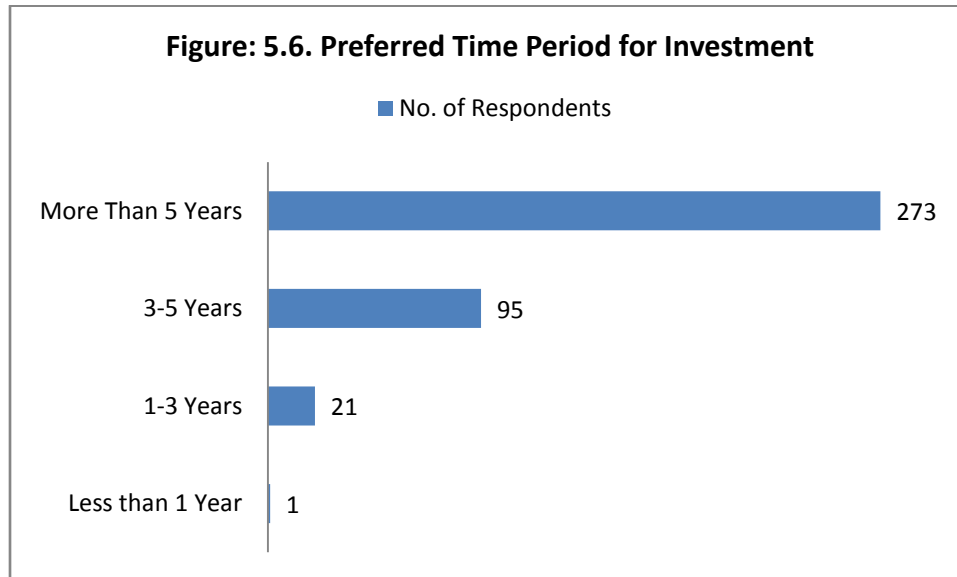
Source: Primary Data

5.7. Preferred Time Period for Investment:

As it is seen from table 5.6 and figure 5.6, a great percentage of respondents prefer a more than five years of investment term.

| Table: 5.6. Preferred Time Period for Investment | |
|---|---------------------------|
| Time Period | No. of Respondents |
| Less than 1 Year | 1 |
| 1-3 Years | 21 |
| 3-5 Years | 95 |
| More Than 5 Years | 273 |

Source: Primary Data



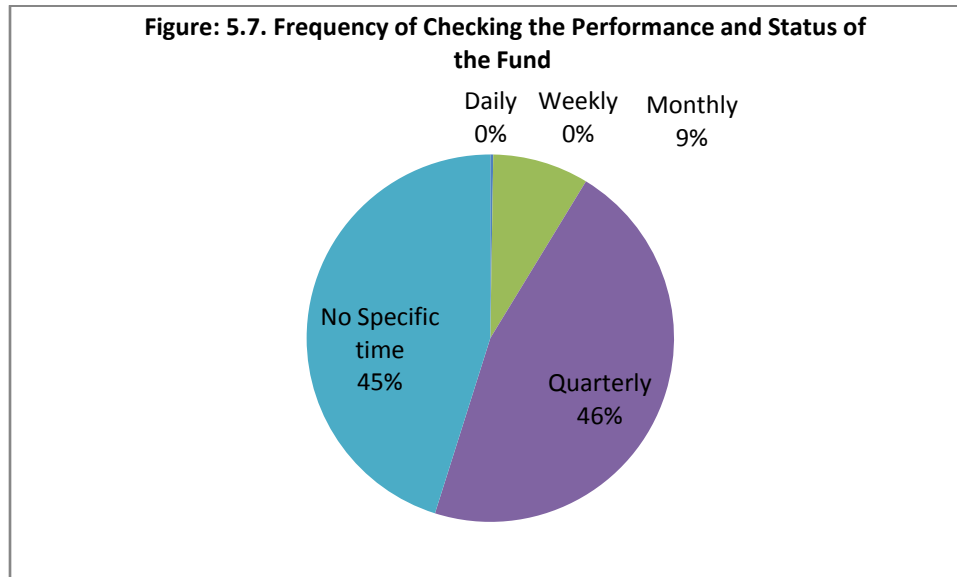
Source: Primary Data

5.8. Frequency of Checking the Performance and Status of the Fund:

Most of the respondents either check the performance and status of the Fund quarterly or without any specific time gap as revealed in table 5.7 and figure 5.7.

| Table: 5.7. Frequency of Checking the Performance and Status of the Fund | |
|---|---------------------------|
| Frequency of Checking | No. of Respondents |
| Daily | 1 |
| Weekly | 0 |
| Monthly | 33 |
| Quarterly | 180 |
| No Specific time | 176 |

Source: Primary Data



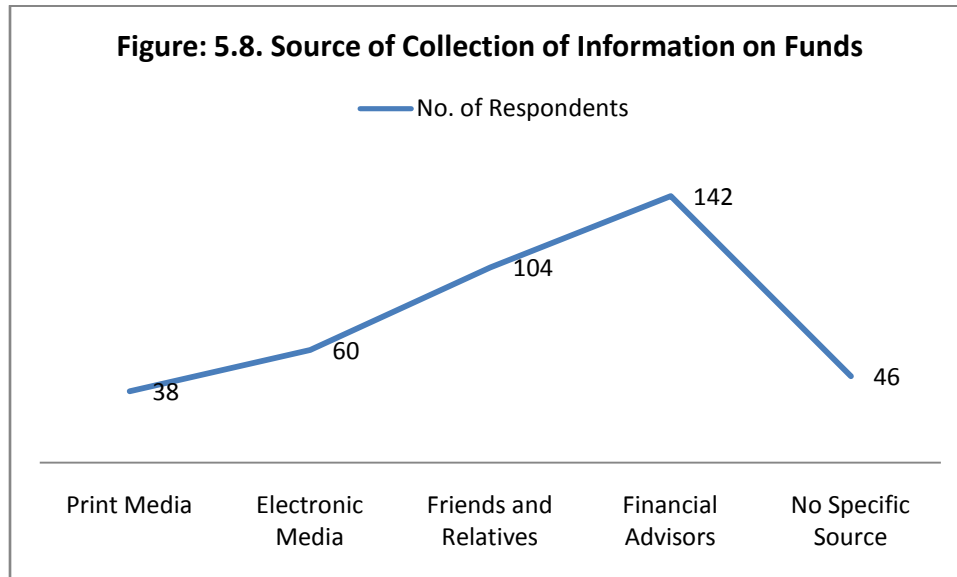
Source: Primary Data

5.9. Source of Collection of Information on Funds:

Highest percentage of respondents gets the information on Funds from friends and relatives followed by from financial advisors as presented in table 5.8 and figure 5.8.

| Table: 5.8. Source of Collection of Information on Funds | |
|---|---------------------------|
| Source | No. of Respondents |
| Print Media | 38 |
| Electronic Media | 60 |
| Friends and Relatives | 104 |
| Financial Advisors | 142 |
| No Specific Source | 46 |

Source: Primary Data



Source: Primary Data

It is found that most of the investors studied prefer less risky avenues and with the expectation of higher rate of return, they prefer long time period.

5.10. Status of Hypothesis:

Hypothesis framed concerning pattern of investment of the retail investors of Ranchi (India) is;

H0 (1): The pattern of investment (the way they put their surplus income) by the respondents (investors) is not influenced by the risk involved in the avenues of investment.

H1 (1): The pattern of investment by the respondents (investors) is influenced by the risk involved in the avenues of investment.

On the basis of descriptive statistics, it is inferred that the alternate hypothesis is established, i.e., the pattern of investment by the respondents (investors) is influenced by the risk involved in the avenues of investment.

Chapter-6

Developing Risk Appetite Scores for Retail Investors

6.1. Overview:

Although people don't prefer to invest in stock market because of risk involved in it, in their day to day affairs, they used to take risk. Thus the objective of this chapter is to assess to what extent the investors take risk in multiple walks of life so that the same could be made use in stretching the depth of investment on equity.

6.2. Computation of Risk Appetite Score:

A well-structured Questionnaire is administered on 390 investors to know their risk tolerance capacity and quantification is done by assigning a score to them so as to know whether their risk appetite is high or low or moderate. Facets identified and put in the questionnaire are based on the literature surveyed and the same is presented in table 6.1 to 6.10. On each facet, five options are given and each option has been assigned with a risk tolerance score. Score is zero if the option is risk free; it is 25, if there is some amount of risk is there in the option; it is 50, if the risk involved in the option is moderate; it is 75, if the risk involved in the option higher than the moderately riskier and it is 100, if the risk involved in the option is the most. Respondents have ticked an option without knowing the risk score attached to the options. Each question/facet has also been weighted on the basis of risk involved in the each facet/question. Question/facet with least level of risk is given weight 1 and the question/facet with most level of risk is given weight 10 (as 10 facets have been identified). Weighted Risk Tolerance Score of an individual in a facet has been

ascertained by multiplying the risk tolerance score of the option selected with the weight of the facet (i.e., $RTS \times W$). The computation of Weighted Risk Tolerance Score ($RTSw$), concerning facet/question 1, is computed and presented in table 6.1.

6.2.1. Question/Facet - 1:-

You take a job at a fast-growing company and are offered the following choices - 1 for lowest level of agreement 5 for highest level of agreement.

- a) You will opt for a conventional form of employment contract of working till the retirement age with normal course of prospects
- b) You will go for a five year employment contract with an option with a potential to earn a bonus of 50% depending on company performance
- c) You will go for a five year employment contract with the option to use your 50% bonus accrued to buy the company's shares at a set price
- d) You will prefer a one year contract with a potential to earn a bonus depending on company performance
- e) You would like a one year contract with the option to use your bonus to buy the company's shares at a set price.

Table: 6.1. Computation of Weighted Risk Tolerance Score ($RTSw$) – For Facet/Question 1:

| Sl. no. of the respondents | Option Picked for the above question(a, b, c, d, e) | Risk Tolerance Score (RTS) | Weight (W) | Weighted Risk Tolerance Score ($RTS \times W$) |
|----------------------------|---|----------------------------|------------|--|
| 1 | E | 100 | 7 | 700 |
| 2 | A | 0 | 7 | 0 |
| 3 | A | 0 | 7 | 0 |
| 4 | E | 100 | 7 | 700 |
| 5 | B | 25 | 7 | 175 |
| 6 | E | 100 | 7 | 700 |
| 7 | A | 0 | 7 | 0 |
| 8 | A | 0 | 7 | 0 |

| | | | | |
|----|---|-----|---|-----|
| 9 | B | 25 | 7 | 175 |
| 10 | A | 0 | 7 | 0 |
| 11 | E | 100 | 7 | 700 |
| 12 | B | 25 | 7 | 175 |
| 13 | B | 25 | 7 | 175 |
| 14 | E | 100 | 7 | 700 |
| 15 | E | 100 | 7 | 700 |
| 16 | B | 25 | 7 | 175 |
| 17 | A | 0 | 7 | 0 |
| 18 | A | 0 | 7 | 0 |
| 19 | A | 0 | 7 | 0 |
| 20 | A | 0 | 7 | 0 |
| 21 | A | 0 | 7 | 0 |
| 22 | A | 0 | 7 | 0 |
| 23 | A | 0 | 7 | 0 |
| 24 | A | 0 | 7 | 0 |
| 25 | E | 100 | 7 | 700 |
| 26 | A | 0 | 7 | 0 |
| 27 | A | 0 | 7 | 0 |
| 28 | A | 0 | 7 | 0 |
| 29 | D | 75 | 7 | 525 |
| 30 | E | 100 | 7 | 700 |
| 31 | A | 0 | 7 | 0 |
| 32 | A | 0 | 7 | 0 |
| 33 | A | 0 | 7 | 0 |
| 34 | E | 100 | 7 | 700 |
| 35 | E | 100 | 7 | 700 |
| 36 | C | 50 | 7 | 350 |
| 37 | E | 100 | 7 | 700 |
| 38 | E | 100 | 7 | 700 |
| 39 | E | 100 | 7 | 700 |
| 40 | A | 0 | 7 | 0 |
| 41 | A | 0 | 7 | 0 |
| 42 | E | 100 | 7 | 700 |
| 43 | A | 0 | 7 | 0 |
| 44 | C | 50 | 7 | 350 |
| 45 | A | 0 | 7 | 0 |
| 46 | C | 50 | 7 | 350 |
| 47 | E | 100 | 7 | 700 |
| 48 | A | 0 | 7 | 0 |
| 49 | A | 0 | 7 | 0 |
| 50 | A | 0 | 7 | 0 |
| 51 | E | 100 | 7 | 700 |
| 52 | A | 0 | 7 | 0 |
| 53 | A | 0 | 7 | 0 |
| 54 | A | 0 | 7 | 0 |
| 55 | A | 0 | 7 | 0 |
| 56 | E | 100 | 7 | 700 |
| 57 | A | 0 | 7 | 0 |
| 58 | E | 100 | 7 | 700 |

| | | | | |
|-----|---|-----|---|-----|
| 59 | E | 100 | 7 | 700 |
| 60 | A | 0 | 7 | 0 |
| 61 | A | 0 | 7 | 0 |
| 62 | A | 0 | 7 | 0 |
| 63 | E | 100 | 7 | 700 |
| 64 | E | 100 | 7 | 700 |
| 65 | E | 100 | 7 | 700 |
| 66 | E | 100 | 7 | 700 |
| 67 | E | 100 | 7 | 700 |
| 68 | E | 100 | 7 | 700 |
| 69 | E | 100 | 7 | 700 |
| 70 | E | 100 | 7 | 700 |
| 71 | A | 0 | 7 | 0 |
| 72 | E | 100 | 7 | 700 |
| 73 | E | 100 | 7 | 700 |
| 74 | E | 100 | 7 | 700 |
| 75 | A | 0 | 7 | 0 |
| 76 | B | 25 | 7 | 175 |
| 77 | C | 50 | 7 | 350 |
| 78 | E | 100 | 7 | 700 |
| 79 | E | 100 | 7 | 700 |
| 80 | A | 0 | 7 | 0 |
| 81 | E | 100 | 7 | 700 |
| 82 | E | 100 | 7 | 700 |
| 83 | C | 50 | 7 | 350 |
| 84 | E | 100 | 7 | 700 |
| 85 | E | 100 | 7 | 700 |
| 86 | E | 100 | 7 | 700 |
| 87 | A | 0 | 7 | 0 |
| 88 | A | 0 | 7 | 0 |
| 89 | C | 50 | 7 | 350 |
| 90 | A | 0 | 7 | 0 |
| 91 | E | 100 | 7 | 700 |
| 92 | C | 50 | 7 | 350 |
| 93 | E | 100 | 7 | 700 |
| 94 | E | 100 | 7 | 700 |
| 95 | C | 50 | 7 | 350 |
| 96 | A | 0 | 7 | 0 |
| 97 | C | 50 | 7 | 350 |
| 98 | C | 50 | 7 | 350 |
| 99 | E | 100 | 7 | 700 |
| 100 | B | 25 | 7 | 175 |
| 101 | E | 100 | 7 | 700 |
| 102 | E | 100 | 7 | 700 |
| 103 | C | 50 | 7 | 350 |
| 104 | A | 0 | 7 | 0 |
| 105 | E | 100 | 7 | 700 |
| 106 | A | 0 | 7 | 0 |
| 107 | E | 100 | 7 | 700 |
| 108 | B | 25 | 7 | 175 |

| | | | | |
|-----|---|-----|---|-----|
| 109 | A | 0 | 7 | 0 |
| 110 | E | 100 | 7 | 700 |
| 111 | C | 50 | 7 | 350 |
| 112 | A | 0 | 7 | 0 |
| 113 | C | 50 | 7 | 350 |
| 114 | E | 100 | 7 | 700 |
| 115 | E | 100 | 7 | 700 |
| 116 | D | 75 | 7 | 525 |
| 117 | E | 100 | 7 | 700 |
| 118 | A | 0 | 7 | 0 |
| 119 | E | 100 | 7 | 700 |
| 120 | A | 0 | 7 | 0 |
| 121 | A | 0 | 7 | 0 |
| 122 | E | 100 | 7 | 700 |
| 123 | A | 0 | 7 | 0 |
| 124 | E | 100 | 7 | 700 |
| 125 | A | 0 | 7 | 0 |
| 126 | C | 50 | 7 | 350 |
| 127 | C | 50 | 7 | 350 |
| 128 | E | 100 | 7 | 700 |
| 129 | A | 0 | 7 | 0 |
| 130 | A | 0 | 7 | 0 |
| 131 | E | 100 | 7 | 700 |
| 132 | E | 100 | 7 | 700 |
| 133 | B | 25 | 7 | 175 |
| 134 | E | 100 | 7 | 700 |
| 135 | A | 0 | 7 | 0 |
| 136 | C | 50 | 7 | 350 |
| 137 | C | 50 | 7 | 350 |
| 138 | A | 0 | 7 | 0 |
| 139 | E | 100 | 7 | 700 |
| 140 | A | 0 | 7 | 0 |
| 141 | E | 100 | 7 | 700 |
| 142 | B | 25 | 7 | 175 |
| 143 | C | 50 | 7 | 350 |
| 144 | C | 50 | 7 | 350 |
| 145 | C | 50 | 7 | 350 |
| 146 | E | 100 | 7 | 700 |
| 147 | C | 50 | 7 | 350 |
| 148 | A | 0 | 7 | 0 |
| 149 | A | 0 | 7 | 0 |
| 150 | C | 50 | 7 | 350 |
| 151 | C | 50 | 7 | 350 |
| 152 | A | 0 | 7 | 0 |
| 153 | C | 50 | 7 | 350 |
| 154 | A | 0 | 7 | 0 |
| 155 | E | 100 | 7 | 700 |
| 156 | E | 100 | 7 | 700 |
| 157 | A | 0 | 7 | 0 |
| 158 | A | 0 | 7 | 0 |

| | | | | |
|-----|---|-----|---|-----|
| 159 | A | 0 | 7 | 0 |
| 160 | C | 50 | 7 | 350 |
| 161 | A | 0 | 7 | 0 |
| 162 | E | 100 | 7 | 700 |
| 163 | C | 50 | 7 | 350 |
| 164 | A | 0 | 7 | 0 |
| 165 | A | 0 | 7 | 0 |
| 166 | A | 0 | 7 | 0 |
| 167 | A | 0 | 7 | 0 |
| 168 | C | 50 | 7 | 350 |
| 169 | A | 0 | 7 | 0 |
| 170 | A | 0 | 7 | 0 |
| 171 | C | 50 | 7 | 350 |
| 172 | E | 100 | 7 | 700 |
| 173 | E | 100 | 7 | 700 |
| 174 | A | 0 | 7 | 0 |
| 175 | E | 100 | 7 | 700 |
| 176 | A | 0 | 7 | 0 |
| 177 | E | 100 | 7 | 700 |
| 178 | C | 50 | 7 | 350 |
| 179 | B | 25 | 7 | 175 |
| 180 | A | 0 | 7 | 0 |
| 181 | E | 100 | 7 | 700 |
| 182 | E | 100 | 7 | 700 |
| 183 | D | 75 | 7 | 525 |
| 184 | E | 100 | 7 | 700 |
| 185 | A | 0 | 7 | 0 |
| 186 | A | 0 | 7 | 0 |
| 187 | A | 0 | 7 | 0 |
| 188 | A | 0 | 7 | 0 |
| 189 | A | 0 | 7 | 0 |
| 190 | A | 0 | 7 | 0 |
| 191 | A | 0 | 7 | 0 |
| 192 | E | 100 | 7 | 700 |
| 193 | C | 50 | 7 | 350 |
| 194 | A | 0 | 7 | 0 |
| 195 | C | 50 | 7 | 350 |
| 196 | C | 50 | 7 | 350 |
| 197 | A | 0 | 7 | 0 |
| 198 | E | 100 | 7 | 700 |
| 199 | C | 50 | 7 | 350 |
| 200 | E | 100 | 7 | 700 |
| 201 | E | 100 | 7 | 700 |
| 202 | D | 75 | 7 | 525 |
| 203 | A | 0 | 7 | 0 |
| 204 | D | 75 | 7 | 525 |
| 205 | E | 100 | 7 | 700 |
| 206 | A | 0 | 7 | 0 |
| 207 | E | 100 | 7 | 700 |
| 208 | D | 75 | 7 | 525 |

| | | | | |
|-----|---|-----|---|-----|
| 209 | E | 100 | 7 | 700 |
| 210 | B | 25 | 7 | 175 |
| 211 | A | 0 | 7 | 0 |
| 212 | E | 100 | 7 | 700 |
| 213 | C | 50 | 7 | 350 |
| 214 | A | 0 | 7 | 0 |
| 215 | C | 50 | 7 | 350 |
| 216 | A | 0 | 7 | 0 |
| 217 | E | 100 | 7 | 700 |
| 218 | C | 50 | 7 | 350 |
| 219 | A | 0 | 7 | 0 |
| 220 | D | 75 | 7 | 525 |
| 221 | C | 50 | 7 | 350 |
| 222 | E | 100 | 7 | 700 |
| 223 | E | 100 | 7 | 700 |
| 224 | B | 25 | 7 | 175 |
| 225 | A | 0 | 7 | 0 |
| 226 | A | 0 | 7 | 0 |
| 227 | C | 50 | 7 | 350 |
| 228 | C | 50 | 7 | 350 |
| 229 | C | 50 | 7 | 350 |
| 230 | A | 0 | 7 | 0 |
| 231 | A | 0 | 7 | 0 |
| 232 | B | 25 | 7 | 175 |
| 233 | E | 100 | 7 | 700 |
| 234 | A | 0 | 7 | 0 |
| 235 | A | 0 | 7 | 0 |
| 236 | C | 50 | 7 | 350 |
| 237 | B | 25 | 7 | 175 |
| 238 | A | 0 | 7 | 0 |
| 239 | B | 25 | 7 | 175 |
| 240 | A | 0 | 7 | 0 |
| 241 | B | 25 | 7 | 175 |
| 242 | E | 100 | 7 | 700 |
| 243 | A | 0 | 7 | 0 |
| 244 | B | 25 | 7 | 175 |
| 245 | A | 0 | 7 | 0 |
| 246 | E | 100 | 7 | 700 |
| 247 | A | 0 | 7 | 0 |
| 248 | A | 0 | 7 | 0 |
| 249 | A | 0 | 7 | 0 |
| 250 | B | 25 | 7 | 175 |
| 251 | B | 25 | 7 | 175 |
| 252 | B | 25 | 7 | 175 |
| 253 | A | 0 | 7 | 0 |
| 254 | E | 100 | 7 | 700 |
| 255 | A | 0 | 7 | 0 |
| 256 | B | 25 | 7 | 175 |
| 257 | A | 0 | 7 | 0 |
| 258 | A | 0 | 7 | 0 |

| | | | | |
|-----|---|-----|---|-----|
| 259 | B | 25 | 7 | 175 |
| 260 | E | 100 | 7 | 700 |
| 261 | B | 25 | 7 | 175 |
| 262 | A | 0 | 7 | 0 |
| 263 | E | 100 | 7 | 700 |
| 264 | B | 25 | 7 | 175 |
| 265 | E | 100 | 7 | 700 |
| 266 | E | 100 | 7 | 700 |
| 267 | C | 50 | 7 | 350 |
| 268 | A | 0 | 7 | 0 |
| 269 | E | 100 | 7 | 700 |
| 270 | A | 0 | 7 | 0 |
| 271 | A | 0 | 7 | 0 |
| 272 | A | 0 | 7 | 0 |
| 273 | A | 0 | 7 | 0 |
| 274 | A | 0 | 7 | 0 |
| 275 | E | 100 | 7 | 700 |
| 276 | E | 100 | 7 | 700 |
| 277 | C | 50 | 7 | 350 |
| 278 | E | 100 | 7 | 700 |
| 279 | E | 100 | 7 | 700 |
| 280 | A | 0 | 7 | 0 |
| 281 | E | 100 | 7 | 700 |
| 282 | A | 0 | 7 | 0 |
| 283 | A | 0 | 7 | 0 |
| 284 | C | 50 | 7 | 350 |
| 285 | A | 0 | 7 | 0 |
| 286 | E | 100 | 7 | 700 |
| 287 | C | 50 | 7 | 350 |
| 288 | C | 50 | 7 | 350 |
| 289 | A | 0 | 7 | 0 |
| 290 | C | 50 | 7 | 350 |
| 291 | C | 25 | 7 | 175 |
| 292 | A | 0 | 7 | 0 |
| 293 | A | 0 | 7 | 0 |
| 294 | A | 0 | 7 | 0 |
| 295 | E | 100 | 7 | 700 |
| 296 | E | 100 | 7 | 700 |
| 297 | E | 100 | 7 | 700 |
| 298 | C | 50 | 7 | 350 |
| 299 | A | 0 | 7 | 0 |
| 300 | C | 50 | 7 | 350 |
| 301 | C | 50 | 7 | 350 |
| 302 | E | 100 | 7 | 700 |
| 303 | A | 0 | 7 | 0 |
| 304 | C | 50 | 7 | 350 |
| 305 | C | 50 | 7 | 350 |
| 306 | A | 0 | 7 | 0 |
| 307 | A | 0 | 7 | 0 |
| 308 | A | 0 | 7 | 0 |

| | | | | |
|-----|---|-----|---|-----|
| 309 | C | 50 | 7 | 350 |
| 310 | A | 0 | 7 | 0 |
| 311 | E | 100 | 7 | 700 |
| 312 | C | 50 | 7 | 350 |
| 313 | C | 50 | 7 | 350 |
| 314 | C | 50 | 7 | 350 |
| 315 | C | 50 | 7 | 350 |
| 316 | A | 0 | 7 | 0 |
| 317 | A | 0 | 7 | 0 |
| 318 | A | 0 | 7 | 0 |
| 319 | E | 100 | 7 | 700 |
| 320 | A | 0 | 7 | 0 |
| 321 | A | 0 | 7 | 0 |
| 322 | A | 0 | 7 | 0 |
| 323 | C | 50 | 7 | 350 |
| 324 | C | 50 | 7 | 350 |
| 325 | C | 50 | 7 | 350 |
| 326 | C | 50 | 7 | 350 |
| 327 | C | 50 | 7 | 350 |
| 328 | A | 0 | 7 | 0 |
| 329 | A | 0 | 7 | 0 |
| 330 | A | 0 | 7 | 0 |
| 331 | A | 0 | 7 | 0 |
| 332 | A | 0 | 7 | 0 |
| 333 | A | 0 | 7 | 0 |
| 334 | A | 0 | 7 | 0 |
| 335 | E | 100 | 7 | 700 |
| 336 | A | 0 | 7 | 0 |
| 337 | E | 100 | 7 | 700 |
| 338 | A | 0 | 7 | 0 |
| 339 | A | 0 | 7 | 0 |
| 340 | A | 0 | 7 | 0 |
| 341 | A | 0 | 7 | 0 |
| 342 | A | 0 | 7 | 0 |
| 343 | C | 50 | 7 | 350 |
| 344 | C | 50 | 7 | 350 |
| 345 | A | 0 | 7 | 0 |
| 346 | C | 50 | 7 | 350 |
| 347 | A | 0 | 7 | 0 |
| 348 | C | 50 | 7 | 350 |
| 349 | A | 0 | 7 | 0 |
| 350 | E | 0 | 7 | 0 |
| 351 | A | 0 | 7 | 0 |
| 352 | E | 100 | 7 | 700 |
| 353 | C | 50 | 7 | 350 |
| 354 | E | 100 | 7 | 700 |
| 355 | A | 0 | 7 | 0 |
| 356 | A | 0 | 7 | 0 |
| 357 | A | 0 | 7 | 0 |
| 358 | A | 0 | 7 | 0 |

| | | | | |
|-----|---|-----|---|-----|
| 359 | C | 50 | 7 | 350 |
| 360 | C | 50 | 7 | 350 |
| 361 | A | 0 | 7 | 0 |
| 362 | A | 0 | 7 | 0 |
| 363 | A | 0 | 7 | 0 |
| 364 | E | 100 | 7 | 700 |
| 365 | C | 50 | 7 | 350 |
| 366 | E | 100 | 7 | 700 |
| 367 | A | 0 | 7 | 0 |
| 368 | A | 0 | 7 | 0 |
| 369 | A | 0 | 7 | 0 |
| 370 | A | 0 | 7 | 0 |
| 371 | A | 0 | 7 | 0 |
| 372 | E | 100 | 7 | 700 |
| 373 | E | 100 | 7 | 700 |
| 374 | E | 100 | 7 | 700 |
| 375 | E | 100 | 7 | 700 |
| 376 | A | 0 | 7 | 0 |
| 377 | B | 25 | 7 | 175 |
| 378 | A | 0 | 7 | 0 |
| 379 | A | 0 | 7 | 0 |
| 380 | E | 100 | 7 | 700 |
| 381 | E | 100 | 7 | 700 |
| 382 | E | 100 | 7 | 700 |
| 383 | A | 0 | 7 | 0 |
| 384 | A | 0 | 7 | 0 |
| 385 | B | 25 | 7 | 175 |
| 386 | A | 0 | 7 | 0 |
| 387 | A | 0 | 7 | 0 |
| 388 | E | 100 | 7 | 700 |
| 389 | A | 0 | 7 | 0 |
| 390 | A | 0 | 7 | 0 |

Source: Computed from Primary Data

Computation of Weighted Risk Tolerance Scores(RTSw) for other Facets/Questions

is done in the similar fashion.

6.2.2. Average Weighted RTS:

Average Weighted RTS for an investor =

$$\sum_{i=1}^{10} RTS_{wi} / \Sigma W$$

Where ‘i’ stands for RTSw for different questions/facets and ‘W’ stands for Weights of each facet/question.

Table: 6.11 Average Weighted RTS

| Sl. No . | Average Weighted RTS (RTSw1+RTSw2+RTSw3+RTSw4+RTSw5+RTSw6+RTSw7+RTSw8+RTSw9+RTSw10)/ ΣW |
|-----------------|--|
| 1 | 80.45 |
| 2 | 8.18 |
| 3 | 14.55 |
| 4 | 80.45 |
| 5 | 42.73 |
| 6 | 85.00 |
| 7 | 24.55 |
| 8 | 54.53 |
| 9 | 51.36 |
| 10 | 31.82 |
| 11 | 67.27 |
| 12 | 24.55 |
| 13 | 39.09 |
| 14 | 45.00 |
| 15 | 74.55 |
| 16 | 45.00 |
| 17 | 23.18 |
| 18 | 15.45 |
| 19 | 24.55 |
| 20 | 15.45 |
| 21 | 22.27 |
| 22 | 25.45 |
| 23 | 28.18 |
| 24 | 30.91 |
| 25 | 72.73 |
| 26 | 23.64 |
| 27 | 21.82 |
| 28 | 22.27 |
| 29 | 71.36 |
| 30 | 72.73 |
| 31 | 27.73 |
| 32 | 13.18 |
| 33 | 26.36 |
| 34 | 62.73 |
| 35 | 37.73 |
| 36 | 32.73 |
| 37 | 59.55 |
| 38 | 60.91 |
| 39 | 57.27 |
| 40 | 36.82 |
| 41 | 50.45 |
| 42 | 60.00 |

| | |
|----|-------|
| 43 | 18.18 |
| 44 | 31.36 |
| 45 | 25.71 |
| 46 | 45.45 |
| 47 | 62.27 |
| 48 | 5.00 |
| 49 | 10.11 |
| 50 | 36.82 |
| 51 | 52.73 |
| 52 | 50.91 |
| 53 | 28.64 |
| 54 | 37.73 |
| 55 | 20.00 |
| 56 | 61.82 |
| 57 | 28.18 |
| 58 | 68.18 |
| 59 | 63.64 |
| 60 | 25.91 |
| 61 | 34.09 |
| 62 | 12.27 |
| 63 | 60.91 |
| 64 | 61.82 |
| 65 | 74.55 |
| 66 | 39.55 |
| 67 | 40.45 |
| 68 | 66.82 |
| 69 | 67.27 |
| 70 | 74.55 |
| 71 | 30.45 |
| 72 | 74.55 |
| 73 | 65.91 |
| 74 | 40.45 |
| 75 | 36.82 |
| 76 | 39.55 |
| 77 | 31.36 |
| 78 | 66.82 |
| 79 | 52.27 |
| 80 | 35.91 |
| 81 | 50.00 |
| 82 | 29.55 |
| 83 | 34.09 |
| 84 | 48.18 |
| 85 | 60.45 |
| 86 | 25.00 |
| 87 | 13.64 |
| 88 | 15.45 |
| 89 | 63.64 |
| 90 | 21.82 |
| 91 | 59.55 |
| 92 | 17.73 |

| | |
|-----|-------|
| 93 | 38.18 |
| 94 | 54.09 |
| 95 | 25.00 |
| 96 | 5.45 |
| 97 | 34.55 |
| 98 | 34.09 |
| 99 | 47.73 |
| 100 | 27.73 |
| 101 | 65.91 |
| 102 | 37.27 |
| 103 | 39.55 |
| 104 | 8.64 |
| 105 | 57.27 |
| 106 | 18.18 |
| 107 | 59.55 |
| 108 | 30.00 |
| 109 | 50.00 |
| 110 | 55.00 |
| 111 | 28.64 |
| 112 | 15.91 |
| 113 | 45.91 |
| 114 | 72.73 |
| 115 | 42.27 |
| 116 | 69.55 |
| 117 | 65.91 |
| 118 | 11.36 |
| 119 | 45.45 |
| 120 | 59.09 |
| 121 | 55.58 |
| 122 | 35.45 |
| 123 | 8.18 |
| 124 | 52.73 |
| 125 | 20.45 |
| 126 | 31.82 |
| 127 | 46.82 |
| 128 | 60.45 |
| 129 | 40.00 |
| 130 | 31.82 |
| 131 | 53.18 |
| 132 | 45.00 |
| 133 | 19.55 |
| 134 | 45.45 |
| 135 | 21.82 |
| 136 | 54.09 |
| 137 | 37.73 |
| 138 | 40.45 |
| 139 | 39.55 |
| 140 | 16.82 |
| 141 | 55.91 |
| 142 | 39.55 |

| | |
|-----|-------|
| 143 | 49.55 |
| 144 | 49.55 |
| 145 | 46.82 |
| 146 | 68.18 |
| 147 | 46.82 |
| 148 | 11.82 |
| 149 | 13.64 |
| 150 | 46.82 |
| 151 | 53.64 |
| 152 | 4.55 |
| 153 | 49.55 |
| 154 | 17.27 |
| 155 | 86.36 |
| 156 | 80.00 |
| 157 | 29.09 |
| 158 | 4.55 |
| 159 | 24.55 |
| 160 | 46.82 |
| 161 | 4.55 |
| 162 | 69.09 |
| 163 | 49.55 |
| 164 | 40.91 |
| 165 | 4.55 |
| 166 | 4.55 |
| 167 | 4.55 |
| 168 | 53.64 |
| 169 | 4.55 |
| 170 | 4.55 |
| 171 | 46.82 |
| 172 | 68.18 |
| 173 | 72.73 |
| 174 | 4.55 |
| 175 | 70.91 |
| 176 | 6.36 |
| 177 | 53.18 |
| 178 | 60.00 |
| 179 | 52.27 |
| 180 | 6.36 |
| 181 | 49.55 |
| 182 | 63.64 |
| 183 | 20.00 |
| 184 | 90.91 |
| 185 | 20.91 |
| 186 | 11.82 |
| 187 | 4.55 |
| 188 | 15.45 |
| 189 | 4.55 |
| 190 | 20.91 |
| 191 | 4.55 |
| 192 | 43.64 |

| | |
|-----|-------|
| 193 | 20.00 |
| 194 | 70.00 |
| 195 | 62.73 |
| 196 | 66.82 |
| 197 | 41.82 |
| 198 | 35.91 |
| 199 | 28.64 |
| 200 | 60.00 |
| 201 | 30.45 |
| 202 | 71.36 |
| 203 | 15.91 |
| 204 | 55.91 |
| 205 | 40.45 |
| 206 | 16.82 |
| 207 | 34.55 |
| 208 | 29.09 |
| 209 | 51.36 |
| 210 | 41.82 |
| 211 | 52.73 |
| 212 | 35.91 |
| 213 | 48.18 |
| 214 | 15.45 |
| 215 | 54.09 |
| 216 | 14.55 |
| 217 | 31.36 |
| 218 | 35.91 |
| 219 | 25.91 |
| 220 | 50.45 |
| 221 | 17.73 |
| 222 | 65.45 |
| 223 | 40.45 |
| 224 | 21.36 |
| 225 | 35.00 |
| 226 | 29.55 |
| 227 | 54.09 |
| 228 | 37.73 |
| 229 | 48.18 |
| 230 | 30.45 |
| 231 | 43.18 |
| 232 | 46.36 |
| 233 | 47.73 |
| 234 | 33.18 |
| 235 | 23.64 |
| 236 | 50.00 |
| 237 | 30.91 |
| 238 | 22.27 |
| 239 | 25.45 |
| 240 | 24.09 |
| 241 | 20.91 |
| 242 | 64.09 |

| | |
|-----|-------|
| 243 | 57.27 |
| 244 | 20.91 |
| 245 | 50.91 |
| 246 | 41.36 |
| 247 | 47.27 |
| 248 | 65.45 |
| 249 | 19.55 |
| 250 | 39.55 |
| 251 | 17.27 |
| 252 | 39.09 |
| 253 | 14.09 |
| 254 | 39.55 |
| 255 | 32.27 |
| 256 | 30.91 |
| 257 | 31.36 |
| 258 | 50.45 |
| 259 | 24.55 |
| 260 | 61.82 |
| 261 | 44.55 |
| 262 | 60.00 |
| 263 | 52.73 |
| 264 | 35.91 |
| 265 | 63.64 |
| 266 | 71.82 |
| 267 | 74.55 |
| 268 | 35.00 |
| 269 | 78.18 |
| 270 | 55.00 |
| 271 | 30.45 |
| 272 | 12.27 |
| 273 | 35.00 |
| 274 | 26.36 |
| 275 | 54.09 |
| 276 | 38.18 |
| 277 | 57.27 |
| 278 | 61.82 |
| 279 | 53.64 |
| 280 | 20.91 |
| 281 | 35.91 |
| 282 | 35.91 |
| 283 | 35.91 |
| 284 | 33.64 |
| 285 | 49.09 |
| 286 | 55.45 |
| 287 | 36.36 |
| 288 | 23.18 |
| 289 | 37.27 |
| 290 | 43.18 |
| 291 | 34.55 |
| 292 | 14.55 |

| | |
|-----|-------|
| 293 | 28.18 |
| 294 | 23.64 |
| 295 | 46.82 |
| 296 | 54.55 |
| 297 | 52.73 |
| 298 | 48.18 |
| 299 | 18.64 |
| 300 | 17.25 |
| 301 | 16.82 |
| 302 | 45.91 |
| 303 | 20.45 |
| 304 | 43.18 |
| 305 | 17.73 |
| 306 | 18.64 |
| 307 | 30.91 |
| 308 | 11.36 |
| 309 | 24.55 |
| 310 | 45.45 |
| 311 | 60.45 |
| 312 | 44.09 |
| 313 | 27.27 |
| 314 | 35.00 |
| 315 | 36.82 |
| 316 | 38.64 |
| 317 | 51.82 |
| 318 | 35.45 |
| 319 | 53.64 |
| 320 | 22.73 |
| 321 | 31.36 |
| 322 | 64.55 |
| 323 | 40.45 |
| 324 | 33.18 |
| 325 | 50.91 |
| 326 | 67.27 |
| 327 | 28.64 |
| 328 | 23.64 |
| 329 | 26.82 |
| 330 | 16.36 |
| 331 | 30.00 |
| 332 | 46.36 |
| 333 | 62.73 |
| 334 | 47.27 |
| 335 | 44.09 |
| 336 | 13.18 |
| 337 | 47.73 |
| 338 | 37.73 |
| 339 | 50.00 |
| 340 | 39.55 |
| 341 | 36.82 |
| 342 | 48.18 |

| | |
|-----|-------|
| 343 | 55.00 |
| 344 | 25.91 |
| 345 | 22.73 |
| 346 | 42.27 |
| 347 | 34.55 |
| 348 | 64.09 |
| 349 | 26.36 |
| 350 | 42.73 |
| 351 | 35.91 |
| 352 | 35.00 |
| 353 | 31.36 |
| 354 | 48.18 |
| 355 | 16.82 |
| 356 | 17.73 |
| 357 | 22.27 |
| 358 | 39.09 |
| 359 | 40.45 |
| 360 | 57.27 |
| 361 | 39.09 |
| 362 | 20.45 |
| 363 | 21.36 |
| 364 | 55.45 |
| 365 | 28.64 |
| 366 | 60.00 |
| 367 | 35.91 |
| 368 | 46.36 |
| 369 | 46.36 |
| 370 | 39.09 |
| 371 | 18.18 |
| 372 | 67.27 |
| 373 | 57.27 |
| 374 | 48.64 |
| 375 | 52.27 |
| 376 | 37.27 |
| 377 | 28.18 |
| 378 | 34.09 |
| 379 | 46.36 |
| 380 | 37.27 |
| 381 | 38.18 |
| 382 | 54.55 |
| 383 | 30.91 |
| 384 | 39.09 |
| 385 | 43.64 |
| 386 | 18.18 |
| 387 | 32.73 |
| 388 | 80.45 |
| 389 | 8.18 |
| 390 | 14.55 |

Source: Computed from Primary Data

Table: 6.12Frequency of Average Weighted RTS

| Range of Weighted Average RTS | No. of Respondents | % of Total Respondents |
|----------------------------------|--------------------|------------------------|
| 60-90.91 | 63 | 16.2 |
| 40-59.55 | 117 | 30 |
| 4.55-39.55 | 210 | 53.8 |

Source: Computed from Primary Data

It is found from the table of average RTSw (ARTSw) that the average of ARTSw of all the respondents is 39.4. Whereas the minimum ARTSw is 4.55 and the maximum ARTSw is 90.91.

6.3. Status of Hypothesis:

Hypothesis framed Pertaining to Ascertainment of Risk Appetite Scores of the Respondents is;

H0 (2): Weighted Risk Appetite Scores of the respondents are not reasonably high

H1 (2): Weighted Risk Appetite Scores of the respondents are reasonably high

Since maximum number of respondents, i.e., 53.8% are having ARTSwof 4.55-39.55, the null hypothesis is established, i.e., Weighted Risk Appetite Scores of the respondents are not reasonably high.

Chapter-7

Risk Appetite Scores of Investors Vis-à-vis their Demographic Profiles

7.1. Overview:

This chapter explains whether risk appetite scores of respondents (investors) get influenced by their demographic profiles. For ascertaining whether demographic factors influence the risk tolerance capacity of the respondents, the independent variables taken are demographic factors such as; Gender, Age-Group, Educational Qualification, Number of Family Members, Occupation and Income level. And the dependent variable taken is the risk tolerance capacity, i.e., Weighted Risk Tolerance Score (RTS_w). RTS_w of an individual (respondent) in a facet has been ascertained by multiplying the risk tolerance score (RTS) of the option selected with the weight of the facet (i.e., RTS*W). All the respondents' RTS_w has been calculated in the similar fashion and they have been presented in the form of a rating scale as given in table 7.1 so as to test the hypotheses through ANOVA.

Table: 7.1. RTS_w to 5-point rating scale: Conversion Chart

| Range of RTS _w | Converted Rating |
|---------------------------|------------------|
| 0-20 | 1 |
| 21-40 | 2 |
| 41-60 | 3 |
| 61-80 | 4 |
| 81-100 | 5 |

Source: Computed from Primary Data

7.2. RTSw Converted to 5-Point Rating Scale:

The index of RTSw has been converted into 5-point scale type on the basis of conversion chart presented in table 7.1 and is exhibited in table 7.2.

Table: 7.2. RTSw Converted to 5-Point Scale

| Sl. no. of the respondents | Average Weighted RTS (1+2+3+4+5+6+7+8+9+10)/ ΣW | 5-Point Scale |
|----------------------------|--|---------------|
| 1 | 80.45 | 5 |
| 2 | 8.18 | 1 |
| 3 | 14.55 | 1 |
| 4 | 80.45 | 4 |
| 5 | 42.73 | 3 |
| 6 | 85.00 | 5 |
| 7 | 24.55 | 2 |
| 8 | 54.53 | 3 |
| 9 | 51.36 | 3 |
| 10 | 31.82 | 2 |
| 11 | 67.27 | 4 |
| 12 | 24.55 | 2 |
| 13 | 39.09 | 2 |
| 14 | 45.00 | 3 |
| 15 | 74.55 | 4 |
| 16 | 45.00 | 3 |
| 17 | 23.18 | 2 |
| 18 | 15.45 | 1 |
| 19 | 24.55 | 2 |
| 20 | 15.45 | 1 |
| 21 | 22.27 | 2 |
| 22 | 25.45 | 2 |
| 23 | 28.18 | 2 |
| 24 | 30.91 | 2 |
| 25 | 72.73 | 4 |
| 26 | 23.64 | 2 |
| 27 | 21.82 | 2 |
| 28 | 22.27 | 2 |
| 29 | 71.36 | 4 |
| 30 | 72.73 | 4 |
| 31 | 27.73 | 2 |
| 32 | 13.18 | 1 |
| 33 | 26.36 | 2 |
| 34 | 62.73 | 4 |
| 35 | 37.73 | 2 |
| 36 | 32.73 | 2 |

| | | |
|----|-------|---|
| 37 | 59.55 | 3 |
| 38 | 60.91 | 4 |
| 39 | 57.27 | 3 |
| 40 | 36.82 | 2 |
| 41 | 50.45 | 3 |
| 42 | 60.00 | 3 |
| 43 | 18.18 | 1 |
| 44 | 31.36 | 2 |
| 45 | 25.71 | 2 |
| 46 | 45.45 | 3 |
| 47 | 62.27 | 4 |
| 48 | 5.00 | 1 |
| 49 | 10.11 | 1 |
| 50 | 36.82 | 2 |
| 51 | 52.73 | 3 |
| 52 | 50.91 | 3 |
| 53 | 28.64 | 2 |
| 54 | 37.73 | 2 |
| 55 | 20.00 | 1 |
| 56 | 61.82 | 4 |
| 57 | 28.18 | 2 |
| 58 | 68.18 | 4 |
| 59 | 63.64 | 4 |
| 60 | 25.91 | 2 |
| 61 | 34.09 | 2 |
| 62 | 12.27 | 1 |
| 63 | 60.91 | 4 |
| 64 | 61.82 | 4 |
| 65 | 74.55 | 4 |
| 66 | 39.55 | 2 |
| 67 | 40.45 | 3 |
| 68 | 66.82 | 4 |
| 69 | 67.27 | 4 |
| 70 | 74.55 | 4 |
| 71 | 30.45 | 2 |
| 72 | 74.55 | 4 |
| 73 | 65.91 | 4 |
| 74 | 40.45 | 3 |
| 75 | 36.82 | 2 |
| 76 | 39.55 | 2 |
| 77 | 31.36 | 2 |
| 78 | 66.82 | 4 |
| 79 | 52.27 | 3 |
| 80 | 35.91 | 2 |
| 81 | 50.00 | 3 |

| | | |
|-----|-------|---|
| 82 | 29.55 | 2 |
| 83 | 34.09 | 2 |
| 84 | 48.18 | 3 |
| 85 | 60.45 | 4 |
| 86 | 25.00 | 2 |
| 87 | 13.64 | 1 |
| 88 | 15.45 | 1 |
| 89 | 63.64 | 4 |
| 90 | 21.82 | 2 |
| 91 | 59.55 | 3 |
| 92 | 17.73 | 1 |
| 93 | 38.18 | 2 |
| 94 | 54.09 | 3 |
| 95 | 25.00 | 2 |
| 96 | 5.45 | 1 |
| 97 | 34.55 | 2 |
| 98 | 34.09 | 2 |
| 99 | 47.73 | 3 |
| 100 | 27.73 | 2 |
| 101 | 65.91 | 4 |
| 102 | 37.27 | 2 |
| 103 | 39.55 | 2 |
| 104 | 8.64 | 1 |
| 105 | 57.27 | 3 |
| 106 | 18.18 | 1 |
| 107 | 59.55 | 3 |
| 108 | 30.00 | 2 |
| 109 | 50.00 | 3 |
| 110 | 55.00 | 3 |
| 111 | 28.64 | 2 |
| 112 | 15.91 | 1 |
| 113 | 45.91 | 3 |
| 114 | 72.73 | 4 |
| 115 | 42.27 | 3 |
| 116 | 69.55 | 4 |
| 117 | 65.91 | 4 |
| 118 | 11.36 | 1 |
| 119 | 45.45 | 3 |
| 120 | 59.09 | 3 |
| 121 | 55.58 | 3 |
| 122 | 35.45 | 2 |
| 123 | 8.18 | 1 |
| 124 | 52.73 | 3 |
| 125 | 20.45 | 2 |
| 126 | 31.82 | 2 |

| | | |
|-----|-------|---|
| 127 | 46.82 | 3 |
| 128 | 60.45 | 3 |
| 129 | 40.00 | 2 |
| 130 | 31.82 | 2 |
| 131 | 53.18 | 3 |
| 132 | 45.00 | 3 |
| 133 | 19.55 | 1 |
| 134 | 45.45 | 3 |
| 135 | 21.82 | 2 |
| 136 | 54.09 | 3 |
| 137 | 37.73 | 2 |
| 138 | 40.45 | 3 |
| 139 | 39.55 | 2 |
| 140 | 16.82 | 1 |
| 141 | 55.91 | 3 |
| 142 | 39.55 | 2 |
| 143 | 49.55 | 3 |
| 144 | 49.55 | 3 |
| 145 | 46.82 | 3 |
| 146 | 68.18 | 4 |
| 147 | 46.82 | 3 |
| 148 | 11.82 | 1 |
| 149 | 13.64 | 1 |
| 150 | 46.82 | 3 |
| 151 | 53.64 | 3 |
| 152 | 4.55 | 1 |
| 153 | 49.55 | 3 |
| 154 | 17.27 | 1 |
| 155 | 86.36 | 5 |
| 156 | 80.00 | 4 |
| 157 | 29.09 | 2 |
| 158 | 4.55 | 1 |
| 159 | 24.55 | 2 |
| 160 | 46.82 | 3 |
| 161 | 4.55 | 1 |
| 162 | 69.09 | 4 |
| 163 | 49.55 | 3 |
| 164 | 40.91 | 3 |
| 165 | 4.55 | 1 |
| 166 | 4.55 | 1 |
| 167 | 4.55 | 1 |
| 168 | 53.64 | 3 |
| 169 | 4.55 | 1 |
| 170 | 4.55 | 1 |
| 171 | 46.82 | 3 |

| | | |
|-----|-------|---|
| 172 | 68.18 | 4 |
| 173 | 72.73 | 4 |
| 174 | 4.55 | 1 |
| 175 | 70.91 | 4 |
| 176 | 6.36 | 1 |
| 177 | 53.18 | 3 |
| 178 | 60.00 | 3 |
| 179 | 52.27 | 3 |
| 180 | 6.36 | 1 |
| 181 | 49.55 | 3 |
| 182 | 63.64 | 4 |
| 183 | 20.00 | 1 |
| 184 | 90.91 | 5 |
| 185 | 20.91 | 2 |
| 186 | 11.82 | 1 |
| 187 | 4.55 | 1 |
| 188 | 15.45 | 1 |
| 189 | 4.55 | 1 |
| 190 | 20.91 | 2 |
| 191 | 4.55 | 1 |
| 192 | 43.64 | 3 |
| 193 | 20.00 | 1 |
| 194 | 70.00 | 4 |
| 195 | 62.73 | 4 |
| 196 | 66.82 | 4 |
| 197 | 41.82 | 3 |
| 198 | 35.91 | 2 |
| 199 | 28.64 | 2 |
| 200 | 60.00 | 3 |
| 201 | 30.45 | 2 |
| 202 | 71.36 | 4 |
| 203 | 15.91 | 1 |
| 204 | 55.91 | 3 |
| 205 | 40.45 | 3 |
| 206 | 16.82 | 1 |
| 207 | 34.55 | 2 |
| 208 | 29.09 | 2 |
| 209 | 51.36 | 3 |
| 210 | 41.82 | 3 |
| 211 | 52.73 | 3 |
| 212 | 35.91 | 2 |
| 213 | 48.18 | 3 |
| 214 | 15.45 | 1 |
| 215 | 54.09 | 3 |
| 216 | 14.55 | 1 |

| | | |
|-----|-------|---|
| 217 | 31.36 | 2 |
| 218 | 35.91 | 2 |
| 219 | 25.91 | 2 |
| 220 | 50.45 | 3 |
| 221 | 17.73 | 1 |
| 222 | 65.45 | 4 |
| 223 | 40.45 | 3 |
| 224 | 21.36 | 2 |
| 225 | 35.00 | 2 |
| 226 | 29.55 | 2 |
| 227 | 54.09 | 3 |
| 228 | 37.73 | 2 |
| 229 | 48.18 | 3 |
| 230 | 30.45 | 2 |
| 231 | 43.18 | 3 |
| 232 | 46.36 | 3 |
| 233 | 47.73 | 3 |
| 234 | 33.18 | 2 |
| 235 | 23.64 | 2 |
| 236 | 50.00 | 3 |
| 237 | 30.91 | 2 |
| 238 | 22.27 | 2 |
| 239 | 25.45 | 2 |
| 240 | 24.09 | 2 |
| 241 | 20.91 | 2 |
| 242 | 64.09 | 4 |
| 243 | 57.27 | 3 |
| 244 | 20.91 | 2 |
| 245 | 50.91 | 3 |
| 246 | 41.36 | 3 |
| 247 | 47.27 | 3 |
| 248 | 65.45 | 4 |
| 249 | 19.55 | 1 |
| 250 | 39.55 | 2 |
| 251 | 17.27 | 1 |
| 252 | 39.09 | 2 |
| 253 | 14.09 | 1 |
| 254 | 39.55 | 2 |
| 255 | 32.27 | 2 |
| 256 | 30.91 | 2 |
| 257 | 31.36 | 2 |
| 258 | 50.45 | 3 |
| 259 | 24.55 | 2 |
| 260 | 61.82 | 4 |
| 261 | 44.55 | 3 |

| | | |
|-----|-------|---|
| 262 | 60.00 | 3 |
| 263 | 52.73 | 3 |
| 264 | 35.91 | 2 |
| 265 | 63.64 | 4 |
| 266 | 71.82 | 4 |
| 267 | 74.55 | 4 |
| 268 | 35.00 | 2 |
| 269 | 78.18 | 4 |
| 270 | 55.00 | 3 |
| 271 | 30.45 | 2 |
| 272 | 12.27 | 1 |
| 273 | 35.00 | 2 |
| 274 | 26.36 | 2 |
| 275 | 54.09 | 3 |
| 276 | 38.18 | 2 |
| 277 | 57.27 | 3 |
| 278 | 61.82 | 4 |
| 279 | 53.64 | 3 |
| 280 | 20.91 | 2 |
| 281 | 35.91 | 2 |
| 282 | 35.91 | 2 |
| 283 | 35.91 | 2 |
| 284 | 33.64 | 2 |
| 285 | 49.09 | 3 |
| 286 | 55.45 | 3 |
| 287 | 36.36 | 2 |
| 288 | 23.18 | 2 |
| 289 | 37.27 | 2 |
| 290 | 43.18 | 3 |
| 291 | 34.55 | 2 |
| 292 | 14.55 | 1 |
| 293 | 28.18 | 2 |
| 294 | 23.64 | 2 |
| 295 | 46.82 | 3 |
| 296 | 54.55 | 3 |
| 297 | 52.73 | 3 |
| 298 | 48.18 | 3 |
| 299 | 18.64 | 1 |
| 300 | 44.56 | 3 |
| 301 | 16.82 | 1 |
| 302 | 45.91 | 3 |
| 303 | 20.45 | 2 |
| 304 | 43.18 | 3 |
| 305 | 17.73 | 1 |
| 306 | 18.64 | 1 |

| | | |
|-----|-------|---|
| 307 | 30.91 | 2 |
| 308 | 11.36 | 1 |
| 309 | 24.55 | 2 |
| 310 | 45.45 | 3 |
| 311 | 60.45 | 4 |
| 312 | 44.09 | 3 |
| 313 | 27.27 | 2 |
| 314 | 35.00 | 2 |
| 315 | 36.82 | 2 |
| 316 | 38.64 | 2 |
| 317 | 51.82 | 3 |
| 318 | 35.45 | 2 |
| 319 | 53.64 | 3 |
| 320 | 22.73 | 2 |
| 321 | 31.36 | 2 |
| 322 | 64.55 | 4 |
| 323 | 40.45 | 3 |
| 324 | 33.18 | 2 |
| 325 | 50.91 | 3 |
| 326 | 67.27 | 4 |
| 327 | 28.64 | 2 |
| 328 | 23.64 | 2 |
| 329 | 26.82 | 2 |
| 330 | 16.36 | 1 |
| 331 | 30.00 | 2 |
| 332 | 46.36 | 3 |
| 333 | 62.73 | 4 |
| 334 | 47.27 | 3 |
| 335 | 44.09 | 3 |
| 336 | 13.18 | 1 |
| 337 | 47.73 | 3 |
| 338 | 37.73 | 2 |
| 339 | 50.00 | 3 |
| 340 | 39.55 | 2 |
| 341 | 36.82 | 2 |
| 342 | 48.18 | 3 |
| 343 | 55.00 | 3 |
| 344 | 25.91 | 2 |
| 345 | 22.73 | 2 |
| 346 | 42.27 | 3 |
| 347 | 34.55 | 2 |
| 348 | 64.09 | 4 |
| 349 | 26.36 | 2 |
| 350 | 42.73 | 3 |
| 351 | 35.91 | 2 |

| | | |
|-----|-------|---|
| 352 | 35.00 | 2 |
| 353 | 31.36 | 2 |
| 354 | 48.18 | 3 |
| 355 | 16.82 | 1 |
| 356 | 17.73 | 1 |
| 357 | 22.27 | 2 |
| 358 | 39.09 | 2 |
| 359 | 40.45 | 3 |
| 360 | 57.27 | 3 |
| 361 | 39.09 | 2 |
| 362 | 20.45 | 2 |
| 363 | 21.36 | 2 |
| 364 | 55.45 | 3 |
| 365 | 28.64 | 2 |
| 366 | 60.00 | 3 |
| 367 | 35.91 | 2 |
| 368 | 46.36 | 3 |
| 369 | 46.36 | 3 |
| 370 | 39.09 | 2 |
| 371 | 18.18 | 1 |
| 372 | 67.27 | 4 |
| 373 | 57.27 | 3 |
| 374 | 48.64 | 3 |
| 375 | 52.27 | 3 |
| 376 | 37.27 | 2 |
| 377 | 28.18 | 2 |
| 378 | 34.09 | 2 |
| 379 | 46.36 | 3 |
| 380 | 37.27 | 2 |
| 381 | 38.18 | 2 |
| 382 | 54.55 | 3 |
| 383 | 30.91 | 2 |
| 384 | 39.09 | 2 |
| 385 | 43.64 | 3 |
| 386 | 18.18 | 1 |
| 387 | 32.73 | 2 |
| 388 | 80.45 | 5 |
| 389 | 8.18 | 1 |
| 390 | 14.55 | 1 |

Source: Computed from Primary Data

7.3. Risk Appetite Scores of Investors Vis-à-vis their Gender:

One-Way ANOVA is done in order to know whether the gender, denoted as v1, has significant impact on the risk tolerance of the respondents. For the purpose, the respondents studied have been segregated into two categories; A) Male B) Female and these categories are denoted respectively as 1 and 2 for analysis purpose in SPSS. Risk tolerance of the respondents is the dependent variable and in analysis, it is denoted as v2. The relevant portion of SPSS output sheet is presented in table 7.2 to infer whether there is any significant effect of gender on the risk tolerance of the respondents.

| Table: 7.3.ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Gender | | | | | |
|---|----------------|-----|-------------|------|------|
| v2 | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .267 | 1 | .267 | .144 | .705 |
| Within Groups | 714.731 | 385 | 1.856 | | |
| Total | 714.997 | 386 | | | |

Source: SPSS Output

Hypothesis on Gender:

H0: Gender does not influence risk tolerance of the respondents. In other words, there is no significant difference between two genders concerning their impact on risk tolerance, i.e., Male = Female.

H1: Gender influences risk tolerance of the respondents.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of table 7.3. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing

researches of similar type). The table reveals that 'p' value is more than the ' α ' value. In fact, since $p = 0.705$ is greater than $\alpha = 0.05$, the null hypothesis is accepted and established. That means, gender does not significantly impact the risk tolerance.

7.4.Risk Appetite Scores of Investors Vis-à-vis their Age-Group:

One-Way ANOVA is done in order to know whether the age-group, denoted as v1, has significant impact on the risk tolerance of the respondents. For the purpose, the respondents studied have been segregated into five categories; a) Below 18 b) 18 - 35 c) 36 - 53 d) 54 - 71 and e) 72 and above. These age-groups are denoted respectively as 1, 2, 3, 4 and 5 for analysis purpose in SPSS. Risk tolerance is the dependent variable and in analysis, it is denoted as v2. The relevant portion of SPSS output sheet is presented below to infer whether there is any significant effect of age-group on the risk tolerance.

| Table: 7.4. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Age-Group | | | | | |
|---|----------------|-----|-------------|-------|------|
| v2 | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 30.062 | 3 | 10.021 | 5.603 | .001 |
| Within Groups | 684.935 | 383 | 1.788 | | |
| Total | 714.997 | 386 | | | |

Source: SPSS Output

Hypothesis on Age-Group:

H0: Age-group does not influence risk tolerance of the respondents. In other words, there is no significant difference among different age-groups concerning their impact on preference, i.e., below 18 = 18-35 = 36-53 = 54-71 = 72 and above.

H1: Age-group influences risk tolerance of the respondents.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of table 7.4. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing researches of similar type). The table reveals that 'p' value is less than the ' α ' value. In fact, since $p = 0.001$ is less than $\alpha = 0.05$, the null hypothesis is not accepted and the alternative hypothesis is accepted and established. That means, the age-group significantly impacts the risk tolerance of the respondents.

7.5.Risk Appetite Scores of Investors Vis-à-vis their Educational Qualifications:

Like the other demographic variables, for educational qualification also, One-Way ANOVA is done in order to know whether the educational qualification, denoted as v1, has significant impact on the risk tolerance of the respondents. For the purpose, the respondents studied have been segregated into six categories; a) below 10th b) 10th c) 10 + 2 d) graduate e) post-graduate and f) professional. These categories are denoted respectively as 1, 2,3,4,5 and 6 for analysis purpose in SPSS. Risk tolerance of the respondents is the dependent variable and in analysis, it is denoted as v2. The relevant portion of SPSS output sheet is presented below to infer whether there is any significant effect of educational qualification on the risk tolerance.

| Table: 7.5. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Educational Qualifications | | | | | |
|--|----------------|-----|-------------|-------|------|
| v2 | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 13.546 | 3 | 4.515 | 2.465 | .062 |
| Within Groups | 701.451 | 383 | 1.831 | | |
| Total | 714.997 | 386 | | | |

Source: SPSS Output

Hypothesis on Educational qualification:

H0: Educational qualification does not influence risk tolerance of the respondents.

In other words, there is no significant difference between the different educational qualification concerning their impact on risk tolerance, i.e., below $10^{\text{th}} = 10^{\text{th}} = 10 + 2$ = graduate = post graduate = professional.

H1: Educational qualification influences risk tolerance of the respondents.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of table 7.5. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing researches of similar type). The table reveals that 'p' value is more than the ' α ' value. In fact, since $p = 0.062$ is greater than $\alpha = 0.05$, the null hypothesis is accepted and established. That means, educational qualification does not significantly impact the risk tolerance of the respondents.

7.6.Risk Appetite Scores of Investors Vis-à-vis No. of their Family Members:

The fourth demographic variable which is studied is the number of family members, for different number of family members also, One-Way ANOVA is done in order to know whether different number of family members, denoted as v1, has significant impact on the risk tolerance. For the purpose, the respondents studied have been segregated into three categories; a) below 3, b) 3 - 5, c) 6 – 8 d) 9 and above. These categories are denoted respectively as 1, 2, 3 and 4 for analysis purpose in SPSS. Risk tolerance of the respondent is the dependent variable and in analysis, it is denoted as v2. The relevant portion of SPSS output sheet is presented below to infer whether there is any significant effect of no. of family members on the risk tolerance.

| Table: 7.6. ANOVA on Risk Appetite Scores of Investors Vis-à-vis No. of their Family Members | | | | | |
|---|----------------|-----|-------------|-------|------|
| v2 | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 44.237 | 3 | 14.746 | 8.420 | .000 |
| Within Groups | 670.761 | 383 | 1.751 | | |
| Total | 714.997 | 386 | | | |

Source: SPSS Output

Hypothesis on Number of family members:

H0: Number of family members does not influence risk tolerance. In other words, there is no significant difference between four levels of number of family members concerning their impact on risk tolerance, i.e., below 3 = 3 - 5 = 6 – 8 and 9 & above.

H1: Number of family members influences risk tolerance.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of table 7.6. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing researches of similar type). The table reveals that 'p' value is less than the ' α ' value. In fact, since $p = 0.000$ is less than $\alpha = 0.05$, the null hypothesis is not accepted and the alternative hypothesis is accepted and established. That means, no. of family members significantly impacts the risk tolerance.

7.7.Risk Appetite Scores of Investors Vis-à-vis their Occupation:

Like the other demographic variables, for different types of occupation also, One-Way ANOVA is done in order to know whether the different types of occupation, denoted as v1, has significant impact on the risk tolerance. For the purpose, the respondents studied have been segregated into six categories; a) Business b) Govt. job c) Private job d) self employed e) ex-serviceman and f) homemaker. These categories are denoted respectively as 1, 2, 3, 4, 5 and 6 for analysis purpose in SPSS. Risk tolerance is the dependent variable and in analysis, it is denoted as v2. The relevant portion of SPSS output sheet is presented below to infer whether there is any significant effect of occupation on risk tolerance.

| Table: 7.7. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Occupation | | | | | |
|--|----------------|-----|-------------|-------|------|
| v2 | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 55.070 | 6 | 9.178 | 5.285 | .000 |
| Within Groups | 659.927 | 380 | 1.737 | | |
| Total | 714.997 | 386 | | | |

Source: SPSS Output

Hypothesis on Occupation:

H0: Occupation does not influence risk tolerance of the respondents. In other words, there is no significant difference between six levels of occupation concerning their impact on risk tolerance, i.e., Business = Govt. Job = Private job = self employed = ex-serviceman = homemaker.

H1: Occupation influences risk tolerance of the respondents.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of table 7.7. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing researches of similar type). The table reveals that 'p' value is less than the ' α ' value. In fact, since $p = 0.000$ is less than $\alpha = 0.05$, the null hypothesis is not accepted and the alternative hypothesis is accepted and established. That means, Occupation significantly impacts the risk tolerance of the respondents.

7.8.Risk Appetite Scores of Investors Vis-à-vis their Income:

Like other characteristics of demographic profile as analyzed above, income of the respondents has also been considered for One-Way ANOVA in order to know whether the income, denoted as v1, has significant impact on the risk tolerance. For the purpose, the respondents studied have been segregated into five categories on the basis of monthly income in Rupees; a) below 2 lakh b) 2 lakh – 4 lakh c) 4 lakh to 6 lakh d) 6 lakh to 8 lakh and e) more than 8 lakh and these categories are denoted respectively as 1, 2, 3, 4 and 5 for analysis purpose in SPSS. Risk tolerance is the dependent variable and in analysis, it is denoted as v2. The relevant portion of SPSS

output sheet is presented below to infer whether there is any significant effect of income on the risk tolerance.

| Table: 7.8. ANOVA on Risk Appetite Scores of Investors Vis-à-vis their Income | | | | | |
|--|----------------|-----|-------------|--------|------|
| v2 | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 87.499 | 5 | 17.500 | 10.625 | .000 |
| Within Groups | 627.499 | 381 | 1.647 | | |
| Total | 714.997 | 386 | | | |

Source: SPSS Output

Hypothesis on Income Level:

H0: Income does not influence risk tolerance of the respondents. In other words, there is no significant difference between five income levels concerning their impact on risk tolerance, i.e., below 2 lakh = 2 – 4 lakh = 4 – 6 lakh = 6 – 8 lakh = more than 8 lakh

H1: Income level influences risk tolerance of the respondents.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of table 7.8, i.e., .000. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing researches of similar type). The table reveals that 'p' value is less than the ' α ' value. In fact, since $p = 0.000$ is less than $\alpha = 0.05$, the null hypothesis is not accepted and alternative hypothesis accepted. That means, income level significantly impacts the risk tolerance of the respondents.

It is inferred that while demographic factors such as income level, occupation, no. of family members and age-group of the respondents significantly impact their risk appetite scores; factors such as educational qualification and gender of the respondents do not significantly impact their risk tolerance scores.

Chapter-8

Clustering of Investors & Strategies for Stretching Depth of Investment

8.1. Overview:

In this chapter, investors studied have been segregated into three different clusters on the basis of their average weighted risk tolerance scores. Three clusters formed are; a) Investors with High Risk Tolerance Capacity, b) Investors with Medium Risk Tolerance Capacity, and c) Investors with Low Risk Tolerance Capacity. It also contains the strategies for different clusters of investors for stretching the depth of investment on equity. Strategies have been framed on the basis of a Focused Group Discussion amongst 10 experts from Finance function such as; Certified Financial Planners, Fund Managers and Experienced Professor of Finance.

8.2. Clustering of Investors:

Average weighted risk tolerance scores of all 390 investors have been ascertained in Chapter-6 and on that basis they have been clustered in three categories, i.e., cluster 1: investors with high risk tolerance capacity, cluster-2: investors with medium risk tolerance capacity and cluster-3: investors with low risk tolerance capacity. Average Weighted RTS of all 390 investors are given in table-8.1.

Table: 8.1. Average Weighted RTS of all 390 investors

| | | | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| 90.9 1 | 65.9 1 | 57.2 7 | 51.3 6 | 46.8 2 | 40.4 5 | 36.8 2 | 31.8 2 | 26.8 2 | 21.3 6 | 15.4 5 | 4.5 5 |
| 86.3 6 | 65.4 5 | 57.2 7 | 51.3 6 | 46.8 2 | 40.4 5 | 36.8 2 | 31.8 2 | 26.3 6 | 20.9 1 | 15.4 5 | 4.5 5 |
| 85 | 65.4 5 | 57.2 7 | 50.9 1 | 46.3 6 | 40.4 5 | 36.3 6 | 31.3 6 | 26.3 6 | 20.9 1 | 15.4 5 | 4.5 5 |

| | | | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| 80.4 5 | 64.5 5 | 57.2 7 | 50.9 1 | 46.3 6 | 40.4 5 | 35.9 1 | 31.3 6 | 26.3 6 | 20.9 1 | 14.5 5 | 4.5 5 |
| 80.4 5 | 64.0 9 | 55.9 1 | 50.9 1 | 46.3 6 | 40 | 35.9 1 | 31.3 6 | 25.9 1 | 20.9 1 | 14.5 5 | 4.5 5 |
| 80 | 64.0 9 | 55.9 1 | 50.4 5 | 46.3 6 | 39.5 5 | 35.9 1 | 31.3 6 | 25.9 1 | 20.9 1 | 14.5 5 | |
| 78.1 8 | 63.6 4 | 55.5 8 | 50.4 5 | 46.3 6 | 39.5 5 | 35.9 1 | 31.3 6 | 25.9 1 | 20.4 5 | 14.0 9 | |
| 74.5 5 | 63.6 4 | 55.4 5 | 50.4 5 | 45.9 1 | 39.5 5 | 35.9 1 | 31.3 6 | 25.7 1 | 20.4 5 | 13.6 4 | |
| 74.5 5 | 63.6 4 | 55.4 5 | 50 | 45.9 1 | 39.5 5 | 35.9 1 | 30.9 1 | 25.4 5 | 20.4 5 | 13.6 4 | |
| 74.5 5 | 63.6 4 | 55 | 50 | 45.4 5 | 39.5 5 | 35.9 1 | 30.9 1 | 25.4 5 | 20 | 13.1 8 | |
| 74.5 5 | 62.7 3 | 55 | 50 | 45.4 5 | 39.5 5 | 35.9 1 | 30.9 1 | 25 | 20 | 13.1 8 | |
| 74.5 5 | 62.7 3 | 55 | 50 | 45.4 5 | 39.5 5 | 35.9 1 | 30.9 1 | 25 | 20 | 12.2 7 | |
| 72.7 3 | 62.7 3 | 54.5 5 | 49.5 5 | 45.4 5 | 39.5 5 | 35.9 1 | 30.9 1 | 24.5 5 | 19.5 5 | 12.2 7 | |
| 72.7 3 | 62.2 7 | 54.5 5 | 49.5 5 | 45 | 39.0 9 | 35.4 5 | 30.4 5 | 24.5 5 | 19.5 5 | 11.8 2 | |
| 72.7 3 | 61.8 2 | 54.5 3 | 49.5 5 | 45 | 39.0 9 | 35.4 5 | 30.4 5 | 24.5 5 | 18.6 4 | 11.8 2 | |
| 72.7 3 | 61.8 2 | 54.0 9 | 49.5 5 | 45 | 39.0 9 | 35 | 30.4 5 | 24.5 5 | 18.6 4 | 11.3 6 | |
| 71.8 2 | 61.8 2 | 54.0 9 | 49.5 5 | 44.5 5 | 39.0 9 | 35 | 30.4 5 | 24.5 5 | 18.1 8 | 11.3 6 | |
| 71.3 6 | 61.8 2 | 54.0 9 | 49.0 9 | 44.0 9 | 39.0 9 | 35 | 30 | 24.5 5 | 18.1 8 | 10.1 1 | |
| 71.3 6 | 60.9 1 | 54.0 9 | 48.6 4 | 44.0 9 | 39.0 9 | 35 | 30 | 24.0 9 | 18.1 8 | 8.64 | |
| 70.9 1 | 60.9 1 | 54.0 9 | 48.1 8 | 43.6 4 | 38.6 4 | 35 | 29.5 5 | 23.6 4 | 18.1 8 | 8.18 | |
| 70 | 60.4 5 | 53.6 4 | 48.1 8 | 43.6 4 | 38.1 8 | 34.5 5 | 29.5 5 | 23.6 4 | 17.7 3 | 8.18 | |
| 69.5 5 | 60.4 5 | 53.6 4 | 48.1 8 | 43.1 8 | 38.1 8 | 34.5 5 | 29.0 9 | 23.6 4 | 17.7 3 | 6.36 | |
| 69.0 9 | 60.4 5 | 53.6 4 | 48.1 8 | 43.1 8 | 38.1 8 | 34.5 5 | 29.0 9 | 23.6 4 | 17.7 3 | 6.36 | |
| 68.1 8 | 60 | 53.6 4 | 48.1 8 | 43.1 8 | 37.7 3 | 34.5 5 | 28.6 4 | 23.1 8 | 17.7 3 | 5.45 | |
| 68.1 8 | 60 | 53.1 8 | 48.1 8 | 42.7 3 | 37.7 3 | 34.0 9 | 28.6 4 | 23.1 8 | 17.2 7 | 5 | |
| 68.1 | 60 | 53.1 | 47.7 | 42.7 | 37.7 | 34.0 | 28.6 | 22.7 | 17.2 | 4.55 | |

| | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|
| 8 | | 8 | 3 | 3 | 3 | 9 | 4 | 3 | 7 | |
| 67.2 | | 52.7 | 47.7 | 42.2 | 37.7 | 34.0 | 28.6 | 22.7 | 16.8 | |
| 7 | 60 | 3 | 3 | 7 | 3 | 9 | 4 | 3 | 2 | 4.55 |
| 67.2 | | 52.7 | 47.7 | 42.2 | 37.7 | 34.0 | 28.6 | 22.2 | 16.8 | |
| 7 | 60 | 3 | 3 | 7 | 3 | 9 | 4 | 7 | 2 | 4.55 |
| 67.2 | 59.5 | 52.7 | 47.2 | 41.8 | 37.2 | 33.6 | 28.1 | 22.2 | 16.8 | |
| 7 | 5 | 3 | 7 | 2 | 7 | 4 | 8 | 7 | 2 | 4.55 |
| 67.2 | 59.5 | 52.7 | 47.2 | 41.8 | 37.2 | 33.1 | 28.1 | 22.2 | 16.8 | |
| 7 | 5 | 3 | 7 | 2 | 7 | 8 | 8 | 7 | 2 | 4.55 |
| 66.8 | 59.5 | 52.7 | 46.8 | 41.3 | 37.2 | 33.1 | 28.1 | 22.2 | 16.3 | |
| 2 | 5 | 3 | 2 | 6 | 7 | 8 | 8 | 7 | 6 | 4.55 |
| 66.8 | 59.0 | 52.2 | 46.8 | 40.9 | 37.2 | 32.7 | 28.1 | 21.8 | 15.9 | |
| 2 | 9 | 7 | 2 | 1 | 7 | 3 | 8 | 2 | 1 | 4.55 |
| 66.8 | 59.0 | 52.2 | 46.8 | 40.4 | 36.8 | 32.7 | 27.7 | 21.8 | 15.9 | |
| 2 | 9 | 7 | 2 | 5 | 2 | 3 | 3 | 2 | 1 | 4.55 |
| 65.9 | 57.2 | 52.2 | 46.8 | 40.4 | 36.8 | 32.2 | 27.7 | 21.8 | 15.4 | |
| 1 | 7 | 7 | 2 | 5 | 2 | 7 | 3 | 2 | 5 | 4.55 |
| 65.9 | 57.2 | 51.8 | 46.8 | 40.4 | 36.8 | 31.8 | 27.2 | 21.3 | 15.4 | |
| 1 | 7 | 2 | 2 | 5 | 2 | 2 | 7 | 6 | 5 | 4.55 |

Source: Computed from Primary Data

8.2.1. Summary of Clustering:

It is found from table 8.1 that the lowest average RTSw is 4.55 and the highest is 90.9.1. Owing to a huge range of ARTSw, there is strong base for clustering the investors. Regarding the number of clusters, since in the context of risk taking ability, literature in finance finds three categories of individual – high risk taker, mediocre risk taker and low risk taker. And accordingly, all 390 investors in this study are categorized into three clusters as presented in table 8.2.

Table: 8.2. Summary of Clustering:

| Cluster | Range of Weighted Average RTS | No. of Respondents | % of Total Respondents |
|---------------------------------------|-------------------------------|--------------------|------------------------|
| 1 (High Risk Tolerance Capacity) | 60-90.91 | 63 | 16.2 |
| 2 (Medium Risk Tolerance Capacity) | 40-59.55 | 117 | 30 |

| | | | |
|------------------------------------|------------|-----|------|
| 3 (Low Risk Tolerance Capacity) | 4.55-39.55 | 210 | 53.8 |
| Total | | 390 | 100 |

Source: Findings from the Analysis of Primary Data

As evidenced from table 8.2, the highest percentage of investors (53.8%) is in the cluster of low risk tolerance capacity.

8.3. Cluster-Wise Strategies for Stretching Depth of Investment on Equity:

As evidenced from the pattern of investment, the depth of investment amongst retail investors of Ranchi is very dismal. Thus customized strategies are required to stretch the depth and for the purpose, a focused group discussion (FGD) was conducted amongst 10 experts comprising of certified financial planner, fund managers and experienced professors. On the basis of the outcome of the FGD, strategies are developed as envisaged in table 8.3.

Table: 8.3. Cluster-wise Strategies to stretch the Depth of Investment

| | High Risk Bearer | Moderate Risk Bearer | Low Risk Bearer |
|----------------------------|---|--|---|
| Income | | | |
| Higher Income Group | Can opt for High Beta stocks as well as some penny stocks can also be present in their baskets. They can also make move in Intra-day Trading | Can go for those shares whose Intrinsic Value is at par with the Market Value Can opt for those shares with unexpected fluctuation in values. | Strongly Advised Blue Chip Companies with long term investment horizon. Can opt for risk-adjusted low return shares. |

| | | | |
|----------------------------|--|--|---|
| Medium Income Group | Can be advised to increase their participation in High Beta Stocks. Can also be benefited from having short term holding in equity market. | Can opt for those shares where fluctuation in values is within tolerable range. Would invest in those shares where liquidity while selling is not an issue or else choosing shares with medium trading volumes. | Can opt for those shares where fluctuation in values is minimal. Would invest in those shares where liquidity while selling is not an issue or else choosing shares with high trading volumes. |
| Lower Income Group | Since they are from low income group and their education level as well as understanding of the equity market is very less in spite of the fact of their willingness to have the test of equity market in their investment portfolio. This compels them to go with investment in the stock market with some expert advice. Thus Mutual Fund will be their obvious choice of majority of them. | | |
| Age | | | |
| 18-35 | As in this age group the number of dependents is minimal and available surplus money for investment is high, so they behave as high income group with high risk bearing capacity. So investment should be in mid-cap/small-cap shares as well as in those shares which are presently available underpriced with | Mid cap/large cap is suggested | Large cap/blue chip companies are suggested based their lower risk bearing capacity. |

| | | | |
|----------------------|--|--|---|
| | potential of high growth in coming future. | | |
| 36-53 | As in this age group people are highly burdened with their social liabilities and their compulsion of Tax Liabilities led them to invest in stock market through tax saving Mutual fund | | As in this age group people are highly burdened with their social liabilities and their compulsion of Tax Liabilities led them to invest in stock market through tax saving Mutual fund |
| 54-71 | <p>Usually people are overburdened with their social responsibilities and majority of them from service class found himself with surplus money at the age of sixty with his retirement benefits. At this stage a person stands with surplus money as well as enough time to spend in the stock market. These facts convert them as new investors in the stock market.</p> <p>Firstly as an infant in the stock market it is important for the participant that they should be well-informed or they must be updated with the news as we all knew that market discounts every news. This is also in one of the tenets of DOW Theory. If they don't have financial expertise they may take some authentic paid advices from experts even.</p> <p>Secondly risk profiling of the customers is again a vital part which must be taken care off before making an investment accordingly in small-cap, mid-cap and strong cap companies.</p> | | |
| 72 &Above | <p>Keeping in mind about their life expectancy they should study their investment horizon which should not be a long term.</p> <p>If they are in a sound financial position as they are free from their dependent's they can also participate in intra-day trading for making adventurous move. They come under high risk bearer with short term horizon.</p> | | |

| | |
|----------------------------------|---|
| | <p>If they wish to gift their investments to their next generations or to their grand children's then they can choose shares of the companies having good fundamentals or else companies which have good future prospects. Companies whose intrinsic value is less than the market value.</p> <p>If they are low risk bearer then they should invest in companies with sound fundamentals or the companies which is less Beta sensitive.</p> <p>Here again the investors should focus on those stocks which do not have liquidity issues as their time horizon is short.</p> |
| Educational Qualification | |
| Graduate | <p>Graduates can be classified into two groups;</p> <p>Newly Graduates who are beginners in earning as well as new in this financial market they need to study the market first so that they can be updated with the market news. Risk profiling is again important so that to select the stocks where the investment can made.</p> <p>Graduates who are well informed in the equity market- Based on their risk appetite they should made investments in small-cap, mid-cap and large cap shares accordingly.</p> |
| Post Graduate | <p>Being Post Graduate does not make any notable difference as far as investment in the stock market is concerned . It is important to have inclination towards making investment in the share market which will create an urge to get more and more information about this investment avenue. This is vital part missing with the Indian investors which resist them in making investment in stock market directly and thus they opt for traditional investment avenues ending with negative inflation adjusted returns. Lastly it is pertinent to mention here that stock market has not much to do with educational degrees rather here matters in-depth knowledge and time spent in the market.</p> |
| Professional | <p>If they are not equity market professionals then they are left with very little time to spend in the market. They are over involved in their own profession but available with enough investible money with fair risk bearing capacity.</p> |

| | | | |
|---------------------------|--|---|---|
| | Due to this condition more often they fall prey to agents who mis-sell their financial products. So these professional should take help from some financial experts who help them to choose those stocks which suits them according to their risk appetite. | | |
| No. Family Members | | | |
| Below 3 | Since number of dependents is less so as the liabilities, they may have exposure into high Beta stocks. They may also participate in small cap scrips. | Their occupancy should more in mid cap shares and the shares with Beta should be moderate, to avoid volatility so as the risk/return adjustments. | Since risk appetite is low so it is advisable to strictly opt for scrip's with stable Beta Co-Efficient. Opting for Blue chip Companies or large cap shares will be a rational decision. |
| 3-5 | They can opt for mid cap or small cap stocks since they are good in taking risk. And it is clearly stated that high risks are associated with high returns. | Again for this group shares with less beta sensitivity is advisable. | Again for this group shares with less beta sensitivity is advisable. |
| 6-8 | Here number of dependents are more so to meet all social liabilities expenses will be more thus seeing the investible surplus which not be enough, it is advisable to choose those mid cap shares which has good future prospects or large cap shares keeping long term investment objectives. As the number of dependents are notably more so the family may sometime fall in urgent need of money so they should invest in such stocks where liquidity is not a issue. | | |
| 9& Above | Since number of dependents is more so as the liabilities it is advisable to make investment based on expert advice. They should opt this investment avenue for long investment objectives. They should avoid their participation in Intra- | | |

| | |
|----------------------|--|
| | Day Trading. As the number of dependents are notably more so the family may sometime fall in urgent need of money so they should invest in such stocks where liquidity is not a issue. |
| Occupation | |
| Business | <p>They believe in diversifying their investment so they choose equity market as one of the good options to go with. Based on their income and their objectives they can opt for those shares which can fulfil their investment objectives</p> <p>The biggest obstacle of their investment in equity market is that they used to later or sooner compare the return of equity market with their own business.</p> |
| Govt.Jobs | <p>As Government employees face TDS on their salary so their prime concern is to save tax with the test of equity market so their obvious choice is investment in equity market through Equity Linked Saving Schemes of Mutual Funds.</p> <p>Since they comes under fixed income group so they invest in equity market with defined path of safety of principal amount without much deviation</p> |
| Pvt. Jobs | <p>Depending on their investable surplus ,salary, dependents ,they can design their investment portfolio either on their own or with some expert advice. However they are notably feared of uncertainty in their job and this fear does not allow them to take risky shares in their investment basket.</p> |
| Self Employed | <p>This class is ready to bear high risks .The features of this class is</p> <p>They don't believe in falling in limited income class.</p> <p>They don't believe in retirement age</p> <p>There is always a tendency among them to attain high growth level.</p> <p>Above mentioned facts establish them as a successful self employed.</p> <p>Hence they enjoy risk bearing so as they are able to attain the return.</p> |
| Home-Maker | <p>Depending on depth of information regarding equity market, this group takes decisions while making investment. They primarily invest according to the news flash in the business channels mainly for intra-day trading.</p> <p>Coming to long term investments they focus on those companies which are familiar to them in their daily life. And those which are fundamentally sound.</p> |

Source: Collated from FGD

Chapter-9

Prioritization of Variables for Non-Investors' Preference

9.1. Overview:

All the chapters of the thesis so far analyzed the behavior of investors who invest on equity. The ultimate objective of this consideration was to stretch the depth of investment on equity. Although Indian economy faces the problem of depth of investment, the problem is more acute in case of incidence of investment as around only 1% of India's population invest on equity. In order to stretch the incidence of investment, it's important to know why the non-investors don't prefer to invest on equity. On the basis of literature review eight such independent variables have been identified which might insist the non-investors to remain non-investor. This chapter prioritizes, on the basis of standardized regression coefficients, those identified eight variables in the context of resisting the non-investors to invest on equity. For the purpose 390 non-investors on equity were considered.

9.2. Prioritization of the Variables using Standardized Regression Coefficients

In this section of the present Study, the Criterion Variable is that 'I am not investing on equity and will never invest on it' for which eight predictor variables related to factors which act as barriers for not investing and on which the data has been collected are;

V₁: I don't invest on equity because; it's not my thing as I lack knowledge (Lack of knowledge)

V₂: I don't invest on equity because; I don't have requisite level of courage to take risk (Lack of risk taking capacity)

V₃: I don't invest on equity because; I don't have enough surplus income to invest in stock market (Lack of surplus)

V₄: I don't invest on equity because; I don't have time to even think about it since I am doing job/business and running behind other things like passion/return on investment (Lack of time to be vigilant every now and then)

V₅: I don't invest on equity because; as per word of mouth, those who invest in equity, they usually lose their principal even (Negative word of mouth)

V₆: I don't invest on equity because; I have the fear of being cheated by financial advisors and/or companies going bankrupt (Fear of being cheated)

V₇: I don't invest on equity because; I hate the stock market volatility (Stock Market Volatility)

V₈: I don't invest on equity because; data available on equity investment is so confusing, it's really difficult what to believe and what not (Misleading data)

As stated earlier, the objective of this section of the study is to prioritize the factors which are acting as barriers for not investing in equity. For the purpose, standardized regression coefficients (Beta values) have been considered.

Table: 9.1. Standardized Regression Coefficients

| Coefficients^a | | | | |
|--|----------------|------------------------------|------------|---------------------------|
| Model | | Un-standardized Coefficients | | Standardized Coefficients |
| | | B | Std. Error | Beta |
| 1 | (Constant) | 4.284 | .652 | |
| | V ₁ | .036 | .083 | .034 |
| | V ₂ | .026 | .063 | .028 |
| | V ₃ | .018 | .056 | .018 |
| | V ₄ | .009 | .060 | .009 |
| | V ₅ | .014 | .049 | .015 |
| | V ₆ | .045 | .052 | .045 |
| | V ₇ | .039 | .026 | .037 |
| | V ₈ | .024 | .036 | .021 |
| a. Dependent Variable : V ₉ | | | | |

Source: SPSS Output

Where V₉ is that 'I am not investing on equity and will never invest on it'.

We know that the standardized regression coefficients (Beta) is a measure of how strongly each predictor variable influences the criterion variable and the higher the beta value the greater the impact of the predictor variable on the criterion variable.

Table 9.1 reveals that β value for V₆ is the highest, i.e., 0.045. It exhibits that the said predictor variable has highest level of impact on the criterion variable. In fact, the variable, i.e., 'Fear of being cheated' has high level of impact on not investing on equity and will never invest on it. Similarly, the β value for V₄ is the lowest, i.e.,

0.009. It means, the variable – ‘Lack of time to be vigilant every now and then’ has the least level of impact on not investing on equity and will never invest on it.

Thus, out of the eight variables identified, on the basis of degree of influencing positively not investing on equity and will never invest on it, the priority list is as follows; V_6 , V_7 , V_1 , V_2 , V_8 , V_3 , V_5 , V_4 .

V_6 : Fear of being cheated

V_7 : Stock Market Volatility

V_1 : Lack of knowledge

V_2 : Lack of risk taking capacity

V_8 : Misleading data

V_3 : Lack of surplus

V_5 : Negative word of mouth

V_4 : Lack of time to be vigilant every now and then

9.3. Impact of Barrier factors on not-investing on Equity (ANOVA)

One-Way ANOVA is done in order to know whether the barrier factors will influence non-investment in equity or not.

The eight predictor variables identified and on which the data has been collected are;

V_1 : I don't invest on equity because; it's not my thing as I lack knowledge (Lack of knowledge)

V₂: I don't invest on equity because; I don't have requisite level of courage to take risk (Lack of risk taking capacity)

V₃: I don't invest on equity because; I don't have enough surplus income to invest in stock market (Lack of surplus)

V₄: I don't invest on equity because; I don't have time to even think about it since I am doing job/business and running behind other things like passion/return on investment (Lack of time to be vigilant every now and then)

V₅: I don't invest on equity because; as per word of mouth, those who invest in equity, they usually lose their principal even (Negative word of mouth)

V₆: I don't invest on equity because; I have the fear of being cheated by financial advisors and/or companies going bankrupt (Fear of being cheated)

V₇: I don't invest on equity because; I hate the stock market volatility (Stock Market Volatility)

V₈: I don't invest on equity because; data available on equity investment is so confusing, it's really difficult what to believe and what not (Misleading data)

'I am not investing on equity and will never invest on it' is the dependent variable and in analysis, it is denoted as V₉. For the purpose, the responses were collected using five categories; 1 for lowest level of agreement and 5 for the highest level of agreement.

The relevant portion of SPSS output sheet is presented below to infer whether there is any significant effect of the barrier factors on investing in equity.

Table: 9.2. ANOVA output (Influence of Barrier Factors)

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|------|------|
| 1 | Regression | 2.527 | 8 | .505 | .175 | .025 |
| | Residual | 1036.513 | 392 | 2.631 | | |
| | Total | 1039.040 | 390 | | | |

Source: SPSS Output

Hypothesis

H: The barrier factors will not influence investment on equity.

The exact significant level (p value) of ANOVA is exhibited in 6th Col. (Sig.) of above mentioned table. The level of significance set by us is 5%, i.e., $\alpha = 0.05$ (on the basis of existing researches of similar type). The table reveals that 'p' value is less than the ' α ' value. In fact, since $p = 0.025$ is less than $\alpha = 0.05$, the null hypothesis is not accepted and the alternative hypothesis is accepted. That means, the barrier factors significantly impact the investment on equity.

9.4. Experts' Opinion on Restraining Factors of Retail Investment

In order to substantiate the findings regarding why people don't invest in Indian Stock Market, opinions of 10 experts (financial advisors and marketing executives of different brokerage houses) who have direct interface with the potential investors and work for stretching the incidence of retail investment in Indian Stock Market, have been collated through a Focus Group Discussion (FGD) . The outcome of the FGD

reveals that the following are the factors (on priority) that refrain the potential investors from investing in Indian Stock Market.

Table: 9.3. Factors for not-investing: Experts' Opinion

| Factors | Priority |
|------------------------------|----------|
| Lack of Knowledge | 1 |
| Negative word of mouth | 2 |
| Fear of being cheated | 3 |
| Lack of risk taking capacity | 4 |

Source: Collated from FGD

Table: 9.4. Factors for not-investing: Investors' Responses vis-à-vis Experts' Opinion

| Factors Identified by the Investors (Most Influential to least Influential) | Factors Identified by the Experts (Most Influential to least Influential) |
|--|---|
| Lack of Knowledge Negative word of mouth Fear of being cheated Lack of risk taking capacity | Fear of being cheated Stock Market Volatility Lack of knowledge Lack of risk taking capacity Misleading data Lack of surplus Negative word of mouth Lack of time to be vigilant every now and then |

Source: Collated from Analysis

As per the experts' opinion, factors like 'Stock Market Volatility' and 'Misleading Data' are the by-product of factors like 'Lack of knowledge' and 'Negative Word of Mouth'. Similarly, as per the experts, factors like 'Lack of Surplus Income' and 'Lack of time to be vigilant every now and then' are the plea for avoiding owing to factors 'Fear of being cheated' and 'Lack of risk taking capacity'.

9.5. Suggestions to Stretch the Incidence of Retail Investment in Indian Stock Market

Suggestions of experts have also been collated through the FGD for stretching the incidence of retail investment in Indian Stock Market. Following are the consolidated list of suggestions for the purpose.

- Since people don't prefer to invest in Indian Stock Market owing to lack of their knowledge on the Market and prospects of this mode of investment, it is necessary to drive awareness campaigns by the regulatory bodies and brokerage houses with the backing of the government.
- In order to counter negative word of mouth, successful investors are to be encouraged and motivated to air their success stories at different forums.
- Since people have fear of being cheated, workshops to train the potential investors to have knowledge on how to trade by own.
- A mechanism may be developed to ensure the investors that the investment could be channelized by the brokerage houses with some sort of assurance of a considerable percentage of principal amounts so that people having no time to trade by their own could depend on the brokerage houses with confidence.

- The concept of General Insurance may be extended to the amount invested in Indian Stock Market for which the premium may be collected from the investors.

Chapter-10

Summary & Conclusion

10.1 Overview:

The previous chapters presented the findings related to the pattern of investment, risk tolerance score, clustering of investors, strategies to stretch the depth and why non-investors don't prefer to invest on equity. This summarizes the findings of this research, highlights the contributions of this research to real world and point out the limitations as well as the future scope for research.

10.2. Pertaining to Pattern of Investment by Investors:

- A great chunk of the respondents (i.e., 37%) invest about 20-30% of their income.
- Highest percentage of respondents prefers to park their surplus income in Banks and also average percentage of investible amount (of all who are parking surplus in banks) is highest in Banks.
- 'Major Purchase' followed by 'accumulation of funds and preparedness for retirement' is Primary goal for the funds in Respondent's Investment Account.
- Major objective of the most of the respondents is to 'generate aggressive capital growth over the long-term' followed by 'generating long-term capital growth'.
- A great percentage of respondents prefer a combination of both fixed income and variable income securities.
- A very high percentage of respondents prefer long term investment, i.e., more than five years of investment term.

- Most of the respondents either check the performance and status of the Fund ‘quarterly’ or ‘without any specific time gap’.
- Highest percentage of respondents gets the information on Funds from ‘friends and relatives’ followed by from ‘financial advisors’.
- Most of the investors studied prefer less risky avenues and with the expectation of higher rate of return, they prefer long time period.

Thus the pattern of investment by the respondents (investors) is influenced by the risk involved in the avenues of investment.

10.3. Pertaining to Risk Appetite Scores for Retail Investors:

- Since maximum number of respondents, i.e., 53.8% are having Weighted Average Risk Tolerance Score (ARTSw) of 4.55-39.55, Weighted Risk Appetite Scores of the respondents are not reasonably high.
- Demographic factors such as income level, occupation, no. of family members and age-group of the respondents significantly impact their risk appetite scores but Demographic Factors such as educational qualification and gender of the respondents do not significantly impact their risk tolerance scores.
- Owing to a huge range (one extreme is as low as 4.55 and another extreme is as high as 90.91) of ARTSw, there is strong base for clustering the investors.
- On the basis of ARTSw, Investors studied have been segregated into three clusters – High, Medium and Low.
- The highest percentage of investors (53.8%) is in the cluster of low risk tolerance capacity.

Thus, different set of strategies for different clusters with demographic variations has been formulated to stretch the depth of investment.

10.4.: Prioritization of Variables for Non-Investors' Preference:

- Variables such as Lack of knowledge (V1), Lack of risk taking capacity (V2), Lack of investible surplus (V3), Lack of time to be vigilant every now and then (V4), Negative word of mouth (V5), Fear of being cheated (V6), Stock Market Volatility (V7), and Misleading data (V8) are identified that insist the non-investors not to invest on equity.
- These eight variables, i.e., the barrier factors, significantly impact the investment on equity.
- On the basis of degree of influencing preference of non-investors not to invest on equity, the priority list of variables is as follows; V_6 , V_7 , V_1 , V_2 , V_8 , V_3 , V_5 , V_4 .
- As per the experts' opinion, factors like 'Stock Market Volatility' and 'Misleading Data' are the bye-product of factors like 'Lack of knowledge' and 'Negative Word of Mouth'. Similarly, as per the experts, factors like 'Lack of Surplus Income' and 'Lack of time to be vigilant every now and then' are the plea for avoiding owing to factors 'Fear of being cheated' and 'Lack of risk taking capacity'.

10.5. Conclusions vis-à-vis Objectives:

Conclusion of this research has been précised and mapped against the Objectives in Table-10.1.

Table-10.1: Conclusions vis-à-vis Objectives

| S. N. | Objective | Conclusion |
|-------|--|---|
| 1 | To study the pattern of investment (including return expectations) of retail investors based at Ranchi | The pattern of investment by the respondents (investors) is influenced by the risk involved in the avenues of investment. |
| 2 | To develop risk appetite scores for retail investors of different background and cluster them in accordance with risk appetite scores. | The highest percentage of investors (53.8%) is in the cluster of low risk tolerance capacity (4.55-39.55), 30% of the investors have moderate risk tolerance capacity (40-59.55) and 16.2% of the investors have high risk tolerance capacity (60-90.91) |
| 3 | To find out whether risk appetite scores of investors are dependent on their demographic profiles. | Demographic factors such as income level, occupation, no. of family members and age-group of the respondents significantly impact their risk appetite scores but Demographic Factors such as educational qualification and gender of the respondents do not significantly impact their risk tolerance scores. |
| 4 | To devise strategies for different | Different set of strategies for different |

| | | |
|---|--|---|
| | clusters on the basis of risk appetite score in order to stretch the depth of investment in Indian stock market. | clusters with demographic variations has been formulated to stretch the depth of investment |
| 5 | To unfold fold why non-investors don't prefer to invest on equity; for stretching the incidence. | On the basis of degree of influencing preference of non-investors not to invest on equity, the priority list of variables is as follows; Fear of being cheated, Stock Market Volatility, Lack of knowledge, Lack of risk taking capacity, Misleading data, Lack of investible surplus, Negative word of mouth and Lack of time to be vigilant every now and then. |

Source: Outcome of this Research

10.6. Societal Contribution of Research Findings:

The findings of this research, besides contributing to the literature base in behavioural finance in the form of methodology, data analysis and interpretation, it will help in addressing the basic problem that the Indian Stock Market has been facing. It will act as a foundation for stretching the depth of investment (business) of any broking firm. If the broking firms take initiatives in such studies of their investors and suggest in a customized way, depending on the risk appetite scores

of the investors, then investment volume and frequency of trading of the existing investors may increase. Moreover, findings of study of non-investors will facilitate expanding the incidence of investment.

10.7. Limitation of the Study:

- The limitation of this study is its scope, i.e., only the investors based at Ranchi
- The Referral Sampling used for the purpose may not represent the universe and hence generalization of inference on the basis of findings of this research may not be appropriate.
- Data used for Risk Appetite could have also been collected in a rating scale so as to do clustering through cluster analysis and the same might have been mapped with the clusters created by risk appetite score and a model could have been developed.

10.8. Scope for Future Research:

- It will have interesting result if research takes place in similar fashion with investors and non-investors based in the outskirts of Ranchi or any suburban areas India where penetration is almost nil.
- With a broadened time frame, stratified random sampling may be thought of doing research in future.
- Research needs to be there in getting data in rating scale on the facets identified so that the same can be used for cluster analysis and designing a

model by mapping the risk appetite scores with clusters from cluster analysis.

Bibliography

1. Abdullah, M.N., Parvez, K. and Khaled, M. (2012), “Is the stock market overvalued: a study in context of Bangladesh?” *Asian Business Review*, Vol. 1 No. 1, pp. 30-36.
2. Akhter,A.,Sangmi,M.D. (2015), *Stock Market Awareness among the Educated Youth: A Micro-level Study in India*, : *Vision*19(3) 210–218© 2015 MDISAGE Publications sagepub.in/home.nav, DOI: 10.1177/0972262915593661
3. Akhter,R.,Ahmed,S.,(2013), *Behavioral Aspects of Individual Investors for Investment in Bangladesh Stock Market*,ISSN (P): 2308-5096,*International Journal of Ethics in Social Sciences*,Vol. 1 No. 1.
4. A.Kumar and C.M.C Lee (2006), *Retail Investor Sentiment and Return Comovements*, *The Journal of Finance*, 51(2): 2451–2486.
5. Al-Ajmi, J. Y. (2008a). Risk tolerance of individual investors in an emerging market. *International Research Journal of Finance and Economics*, 17(1), 15–26.
6. Al-Ajmi, J.Y. (2008b): Risk tolerance of individual investors in an emerging market. *International Research Journal of Finance and Economics*,17(2): 15-26.
7. Alinvi, F. and Babri,M,(2007), *Customers” preferences of insurance services*. Bachelor Thesis. International Business Program.
8. Anbar, A. and Eker,M., (2010), *An empirical investigation for determining of the relation between personal financial risk tolerance and demographic characteristic*. *EGE Academic Review*, 10(2): 503-523.
9. Andersen, S., Harrison,G.W., Lau M.I.,and Rutström,E.E.,*Lost in state space, Are preferences stable?* *International Economic Review*, 49(3): 1091-1112,2008.

10. Antonites, A.J. and Wordsworth,R,(2009),Risk tolerance: A perspective on entrepreneurship education. *Southern African Business Review*, 13(3): 69-85.
11. Arano, K.,Parker,C.and Terry,R.L.(2010),Gender-based risk aversion and retirement asset allocation. *Economic Inquiry*, 48(1): 147-155.
12. Arangasami, A. (1992). A study of small savings schemes in Tamil Nadu with special reference to Madras District during 1981-82 to 1990-91. Unpublished thesis,University of Madras, Tamilnadu, India.
13. Arrow, K.J.(1965), Aspects of the theory of risk bearing. Helsinki: Yrjo Jahnsson Foundation
14. Armistead, N. (2012) Comparative Analysis of Individual Investor Portfolios Based on Behavioral Finance and Efficient Market Theories.
15. Arun S, Shankaran,B.and Jayadev M. (2009) Investment Value of Analyst Recommendations: Evidence from the Indian Stock Market, *South Asian Journal Of Management* Volume 23, No-2.
16. Bailey, J. J., & Kinerson, C. (2005). Regret avoidance and risk tolerance.*Financial Counseling and Planning*, 16(1), 23–28.
17. Bajtelsmit, V., & Bernasek, A. (1997). Why do women invest differently than men? *Financial Counseling and Planning*.
18. Barsky, R., Juster,F.,Kimball,M.and Shapiro,M. (1997), Preference parameters and behavioral heterogeneity: An experimental approach in the health and retirement study. *The Quarterly Journal of Economics*, 112(2): 537-579.

19. Baker, H.K; Haslem, J.A. (1974). The Impact of Investor Socio-economic Characteristics on Risk and Return Preferences”, *Journal of Business Research*, 2, pp. 469-476
20. Baker, H. Kent, Hargrove, Michael B. and Haslem, John A. (1977), An Empirical Analysis of the Risk-Return Preferences of Individual Investors, *The Journal of Financial and Quantitative Analysis*, Vol. 12, No. 3, pp. 377-389.
21. Baker, M. and Wurgler, J. (2007), “Investor sentiment in the stock market”, *Journal of Economic Perspective*, Vol. 21 No. 2, pp. 129-51.
22. Bandgar, P.K. (1999), “A Study of Middle Class Investors’ Preferences for Financial Instruments in Greater Bombay”, *Finance India*, Vol XIV, No.2, June, 2000,pp. 574-576.
23. Barber, Brad M. and Odean, T. (2011) The Behavior of Individual Investors, In G. Constantinides, George M., Harris, Milton & Stulz, Rene M. (Eds.), *Handbook of the Economics of Finance*, Amsterdam: Elsevier.
24. Barberis, N., Shleifer, A. and Vishny, R. (1998), “A model of investor sentiment”, *Journal of Financial Economics*, Vol. 49 No. 3, pp. 307-43. Behavior in attitude research.
25. Bellante, D. and Green, C.A. (2004). Relative risk aversion among the elderly. *Review of Financial Economics*, 13(3): 269-281.
26. Belsky, G., Kobliner, B., & Walmac, A. (1993). He says she says: How men and women differ about money. *Money*, 22(11), 76–84.
27. Belsky, G. & Gilovich, T. (2000). Why Smart People Make Big Money Mistakes.

28. Bennet,E., Selvam,M.,Vivek,N., and Shalin, E. S. (2012),The impact of investors' sentiment on the equity market: Evidence from Indian stock market, African Journal of Business Management Vol. 6(32), , 15-22.
29. Bennet, E. and Selvam, M. (2011a). "Investors' perception towards the influence of SPERTEL risks on the value of equity shares: A Study conducted at CoimbatoreCity."International Journal of Research in ComputerApplication and Management, 1(2), 61-65.
30. Bennet E and Selvam M (2011b). "Factors Influencing Retail Investors Attitude towards Investing In Equity Stocks: A Study In Tamil Nadu, J.Modern Account. Auditing, 7(3): 316-321.
31. Bennet, E., Selvam, M., Vivek, N. and Shalin, E.E. (2012), "The impact of investors' sentiment on the equity market: evidence from Indian stock market", African Journal of Buisness Management, Vol. 6 No. 32, pp. 9317-9325.
32. Bharathi, N. (2009), "A Study on Motives of Equity Investors", Rai Management Journal,Vol. 7, No. 3, pp. 4-15.
33. Bhattacharya,N. G., Agarwal, V. and Sachdeva, J.K. (2010),Impact of Economic and Demographic Factors on Stock Market Investments in India: A Triangulated Study, SOUTH ASIAN JOURNAL OF MANAGEMENT, 74 Volume.
34. Bhate,V.(2014): A Pilot Study for Monograph on Stock Market Investor – behavior, Journal of Commerce & Management Thought,Vol. 5-4, 2014, DOI : 10.5958/0976-478X.2014.00014.7, pp 676-694.

35. Bhushan, P. and Medury, Y. (2013). "Gender Differences in Investment Behaviour among Employees. "Asian Journal of Research in Business Economics and Management, 3(12), 147-157.
36. Birau, F. R. (2012). The Impact of Behavioural Finance on Stock Markets. Retrieved February 20, 2014, from researchgate.net: http://www.researchgate.net/publication/258698903_THE_IMPACT_OF_BEHAVIOURAL_FINANCE_ON_STOCK_MARKETS
37. Blonski, P. and Blonski, S.C. (2015), Are individual investors dumb noise traders, An analysis of their cognitive competence based on expert assessments. Qualitative Research in Financial Markets, Vol. 8 No. 1, 2016, © Emerald Group Publishing Limited, 1755-4179, DOI 10.1108/QRFM-02-2015-0009, pp. 45-69.
38. Braşoveanu, I., Păun, C., Muşetescu, R. and Drăghici, A. (2008). Empirical evidence on risk aversion for individual Romanian capital market investors. Review of Economic and Business Studies, 1(1): 91-101.
39. Brijlal P. (2007), "Key Changes in Profile and Characteristics of Individual Investors on the Johannesburg securities Exchange (JSE), over the past two decades", African Journal of Business Management, Vol. 1, No. 6, September, 2007, pp 136- 141.
40. Brennan, M. J. (1995), The Individual Investor, Journal of Financial Research, Vol. 18, pp. 59-74.
41. Bondt, W. F. (1998). Behavioural Economics: A Portrait of the Individual Investor. European Economic Review, 42, 831-844.

42. Chandra,A., Kumar,R.,(2012),Factors Influencing Indian Individual Investor Behaviour: Survey Evidence, Decision, Vol.39,No.3,p.g. no.- 24-31
43. Chandra, A. and Kumar, R. (2012), “Factors Influencing Indian Individual Investor Behaviour: Survey Evidence”, Decision, Vol. 39, No. 3,pp. 141-167.
44. Charles,A. and Kasilingam,R. (2014) Do Investors’ Emotions Determine their Investment Personality ?, Parikalpana - KIIT Journal of Management, Vol-10(II), Pg.45-60.
45. Chang, C. C., DeVaney, S. A., & Chiremba, S. T. (2004). Determinants of subjective and objective risk tolerance. Journal of Personal Finance, 3(3), 53–67.
46. Chaturvedi, M. and Khare, S. (2012). “A Study of saving pattern and investment preferences of individualhousehold in India.”International Journal Of Research in Commerce & Management,3(5), 115-120.
47. Chira, I., Adams, M. and Thornton, B. (2008), “Behavioral bias within the decision making process”, Journal of Business and Economic Research, Vol. 6 No. 8, pp. 11-20.
48. Kirshnudu, C., Reddy, B. K. and Reddy, G. R. K. (2005), “Investment behavior and risk management”
49. Cohn, R. A., Lewellen, W.G., Lease, R. C and Schlarbaum, G. G. (1975). Individual Financial Risk Aversion and Investment Portfolio Composition, Journal of Finance, 30, pp. 605-620.
50. Coleman, S. (2003). Risk tolerance and the investment behavior of Black and Hispanic heads of household. Financial Counseling and Planning, 14(2), 43–52

51. Daniel, K., Hirshleifer, D. and Teoh, S. H. (2002), Investor Psychology in Capital Markets: Evidence and Policy Implications, *Journal of Monetary Economics*, Vol. 49, pp. 139-209.
52. Dasgupta, S.C.R. (2015), Demographic And Socioeconomic Impact On Risk Attitudes Of The Indian Investors – An Empirical Study, *Asian Economic and Financial Review*, 5(4):601-623.
53. Das, N. and Pattanayak, J. K. (2013), The Effect of Fundamental Factors on Indian Stock Market: A Case Study of Sensex and Nifty: *The IUP Journal of Applied Finance*, Vol. 19, No. 2.
54. Das, S.K. (2012) Factors Influencing the Mutual Fund Scheme Selection by Retail Investors In Assam: An empirical Study, *Indian Journal Of Commerce & Management Studies*, ISSN:2240-0310 ,EISSN:2229-5674.
55. Das, S. K. (2012). Middle class household's investment behaviour: An empirical Analysis. *Journal of Radix International Educational and Research Consortium*.1(9).
56. Dash, S.R. and Mahakud, J.(2007) A Comparative Assessment of Unconditional Multifactor Asset Pricing Models: Evidence from Indian Stock Market, *Journal of Management Research*, 13(1), pp 35–54.
57. DeBondt, F.M. W. and Thaler H.R. (1985a), Does the stock market overreact?, *The Journal of Finance*, Vol. XI no. 3, 793-807.
58. DeBondt, F.M. W. and Thaler H.R. (1987b), Further evidence on investor overreaction and stock market seasonality. *Journal of Finance* 42, 557-581.

59. DeBondt, F.M. W. (1991a), what do economists know about the stock market?
Journal of Portfolio Management 18, 84-91
60. DeBondt, F.M. W. (1991b), Behavioural Economics; a portrait of individual investors. European Economic Review 42, 831-844.
61. Devi, C. (2012). A study on impact of socio –economic profile on investment pattern of salaried and business people in Coimbatore city. International Journal of Management & Information Technology, 2(1), 67-77.
62. Duasa, J., Yusof, S.A. (2013), Determinants Of Risk Tolerance On Financial Asset Ownership: A Case Of Malaysia, International Journal of Business and Society, Vol. 14 No. 1, 1 – 16.
63. Dubey, R. K. and Sarma, I.R. S. (2013) Impact Of Information Flow On Stock Market Movement: Event Study On The Dissemination Of Timely Information In Indian Economy, ASBBS Annual Conference: Las Vegas, February 2013, Volume 20 Number 1.
64. Elvekrog, M. (1996). Psychological ‘unbalance’ in investing. A matter of emotion, not analysis. Better Investing, October: 9–11.
65. Faff, R.W. (2004), Hallahan, T. and McKenzie, M.D., (2004), An Empirical Investigation of Personal Financial Risk Tolerance, Financial Services Review 13(2004) 57-78.
66. Feng, L. and Seasholes, M.S. (2005), “Do investor sophistication and trading experience eliminate behavioral biases in financial markets”, Review of Finance, Vol. 9, pp. 305-351.

67. Fisher, K. L. and Statman, M. (2000), Investor Sentiment and Stock Returns, *Financial Analysts Journal*, 56(2): 16–23.
68. Fonseka, M.M. and Gao-liang T. (2011), What factors motivate the analysts' stock recommendation in a small emerging market? Evidence from Sri Lanka, *African Journal of Business Management* Vol. 5(26), pp. 10908-10920.
69. Gandhi, K. (2015), Investment preferences of investors – A survey of Chennai , *International Journal of Multidisciplinary Research and Modern Education (IJMRME)* ISSN (Online): 2454 - 6119 (www.rdmodernresearch.org) Volume I, Issue I.
70. Ghazali, E., and Othman, M. (2003). Demographic and psychographic profile of active and passive investors of KLSE: A discriminant analysis. *Asia Pacific Management Review*, 9(3), 391-413.
71. Giridhari, M., & Debasish, S. (2011). A study on investment perception among urban investors in Orissa. *Journal of Management thought and practices*, 3(1), 1-26. Retrieved on 12.04.2016 from <http://www.grgsms.com/prerana-march2011.pdf>
72. Gopi, M. and Ramayah, T. (2007) Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country, *International Journal of Emerging Markets* Vol. 2 No. 4.q Emerald Group Publishing Limited 1746-8809 DOI 10.1108/17468800710824509, pp. 348-360.
73. Gour, Y. (2013) Retail investor's behavior towards securities: A case study of Rohtak city, *Asian Journal of Business and Economics*, Volume 3, No. 3.1 Quarter I 2013, ISSN: 2231-3699.

74. Grable, J. E. (1997). Investor risk tolerance: testing the efficacy of demographics as differentiating and classifying factors, Virginia Polytechnic Institute and State University.
75. Grable, J. E. (2000). Financial risk tolerance and additional factors that affect risk taking in everyday money matters. *Journal of Business and Psychology*, 14(4), 625–630.
76. Grable, J. E. and Lytton, R. H. (1999a). Financial risk tolerance revisited: the development of a risk assessment instrument. *Financial Services Review*, 8(3), 163–181.
77. Grable, J. E. and Lytton, R. H. (1999b). Assessing financial risk tolerance: do demographic, socioeconomic, and attitudinal factors work. *Family Relations and Human Development/Family Economics and Resource Management Biennial*, 3, 80–88.
78. Grable, J. E. and Joo, S. H. (1997a). Determinants of risk preference: implications for family and consumer science professionals. *Family Economics and Resource Management Biennial*, 2, 19–24.
79. Grable, J. E. and Joo, S. H. (1997b). Determinants of Risk Preference: Implications for Family and Consumer Science Professionals, *Family Economics and Resource Management Biennial*, 2, pp. 19-24.
80. Grable, J. E.; Lytton, R. H. (1998) Investor Risk Tolerance: Testing the Efficacy of Demographics as Differentiating and Classifying Factors”, *Financial Counsellings and Planning*, 9 .1, pp. 61-74.

81. Gupta L. C. (1987). Share Holders Survey: Geographic Distribution, 86. Manas Publications, New Delhi.
82. Gupta, S. (2012). Middle class household's investmentbehaviour : An empirical analysis. Journal of radix international educational and research consortium, 1(9),Retrieved on 23.11.2015 from <http://rierc.org/banking/paper37.pdf>
83. Harikanth, D. and Pragathi, B. (2012). "Role Of Behavioural Finance In Investment Decision Making- A Study On Select Districts Of Andhra Pradesh, India."International Journal in Multidisciplinary andAcademic Research(SSIJMAR), 1(4), 1-15.
84. Hawley, C. B. and Fujii, E. T. (1993). An empirical analysis of preferences for financial risk: further evidence on the Friedman-Savage model. Journal of Post Keynesian Economics, 16(2),197–204.
85. Heath C, Huddart, S. and Lang, M. (1999), "Psychological Factors and Stock Option Exercise", Quarterly Journal of Economics, Vol. 114, No. 2, pp. 601-627.
86. Holzhauser, H. M. and McLeod, R. W. (2009). Five factor model for measuring financial risk tolerance: Investment Choices of Individual Investors, Management Science, Vol. 54,No. 6, pp. 1052-1064.
87. Irwin, C. E. Jr. (1993). Adolescence and risk taking: how are they related?
88. Islamoğlu,M.,Apan, M. and Ayvali,A. (2015), Determination of Factors Affecting Individual InvestorBehaviours: A Study on Bankers, International Journal of Economics and Financial Issues, 5(2), 531-543.

89. Iyer, S. B. and Bhaskar, K. R. (2002), Investor's psychology: A study of investor behaviour in the Indian capital market, Finance India, 16, 4, ABI/INFORM Collection, pg. 1357-1375.
90. Jaccard, J., and Blanton, H. (2005). The origins and structure of behavior: conceptualizing
91. Jain, R., Jain, P. and Jain, C (2005) Behavioral Biases in the Decision Making of Individual Investor.
92. Jaiswal, B. and Kamil, N. (2012), "Gender, Behavioral Finance and the Investment Decision", Business Review, Vol. 7, No. 2, pp. 8-22.
93. John, K. C., Kumar, S. and Vikkraman, P. (2011). A study on socio-economic characteristics of Indian share market investors [With Special Reference To Coimbatore]. International Journal of Multidisciplinary Research, 1(5), 257-278.
94. Kaboor, A. (2010), "Determinants of investor's financial literacy".
95. Kabra, G., Mishra, P. K., and Dash, M. K. (2010). Factors influencing investment decision of generations in India: An econometric study. Asian Journal of Management Study, 2, 305-326.
96. Kabra, G., Mishra, P. K. and Dash, M. K. (2010). "Factors Influencing Investment Decision of Generations in India: An Econometric Study." Asian Journal of Management Research, 4(2), 305-326 .
97. Kahneman, D. (Ed.) (1982). Judgement under Uncertainty: Heuristics and Biases.
98. Kahneman, D. & Tversky, A. (2000). Choices, Values and Frames.
99. Kamiru, J., McGowan, C. B. (2013), The Relationship between Stock Market Development And The Opacity Index, The Clute Institute.

100. Kim. K.A. and Notsinger J. R.(2003), “The Behavior and Performance of Individual investors in Japan”, State University of New York, USA.
101. Kannadhasan, M. (2006). Risk appetite and attitudes of retail investors with special reference to capital market. *Management Accountant*,41(6), 448.
102. Kannadhasan, M. and Nandagopal, R. (2010). Influence of decisionmakers’ characteristics on risk analysis in strategic investment decisions. *Journal of Modern Accounting and Auditing*, 6(4), 38–44.
103. Kansal,P. and Singh,S. (2012) Investment behaviour of Indian Investors: Gender Biasness, <http://ssrn.com/abstract=2358344>. Accessed on 12.03.2016.
104. Kaur,I. and Kaushik,K.P.(2016), Determinants of investment behaviour of investors towards mutual funds,*Journal of Indian Business Research*Vol. 8 No. 1,© Emerald Group Publishing Limited1755-4195,DOI 10.1108/JIBR-04-2015-0051, pp. 19-42.
105. Kaur, P.,Virani, S. and Fazalbhoy,S. (2007),Psychological Traits And Demographic Factors Do They Affect Investor’s Behavior?,*Indian Journal Of Management SCIENCE (IJMS)* EISSN 2231-279X – ISSN 2249-0280.
106. Kenney, D. (2003). Investor psychology plays key role in market plays, *fortworth, Business Press*, December,5-11.
107. Kent, D., Hirshleifer, D. and Siew, H. T. (2001). Investor psychology in capital markets: evidence and policy implications, *Journal of Monetary Economics*, 49(1), 139-209.
108. Kent, D., Hirshleifer, D. and Subrahmanyam,A., (2001). Overconfidence, Arbitrage,and Equilibrium asset pricing. *Journal of Finance* 56,. 921-965

109. Kher, S. and Shende, P. N.,(2013), A Study of Investment Pattern of Central Government Employees after the Implementation of Sixth Pay,SUMEDHA Journal of Management,Vol.2, No.1.
110. Kindleberger, C. P., and Aliber, R. (2005). Manias, panics and crashes. Hoboken: John Wiles and Sons.
111. Kiran, D. and Rao, U. S. (2005). Identifying Investor Group Segments Based on Demographic and Psychographic Characteristics', Proceedings of the 8th Capital MarketsConference, Indian Institute of Capital Markets Paper,Mumbai, India.
112. Korniotis, G. M. and Kumar, A. (2011), Do Older Investors Make Better Investment Decisions? The Review of Economics and Statistics, Vol. 93, No. 1, pp. 244–265.
113. Kotishwar,A. and Khan, A.A.(2014), Investors Behaviour Towards Mutual Funds: An Analytical Studyof Selected Investors of Telangana Region in Andhra Pradesh, SUMEDHA Journal of Management. Vol.3, No.3,
114. Kulkarni,M. S. (2014),A Study Of Investment Behaviour Based On Demographics, Journal of Commerce and Scientific Research,Volume 3 Issue 4,Pg.-47-54.
115. Kumar, A. and Lim, S. S. (2008), “How Do Decision Frames Influence the Stock
116. Kumar,K.C.J.S. and Vikkraman,P. (2006), Investors Preference on Financial Services, Global Business and Management Research: An International Journal.

117. Kumar, R. and Dhankar, R. S. (2010), Distribution Of Risk and Return: A Test of Normality in Indian Stock Market, South Asian Journal of Management , Vol. 18, No. 1.
118. Kumar, A. and Lee, C. M.C. (2006), Retail Investor Sentiment and Return Co-Movements, The Journal of Finance, Vol. 61, No. 5, pp. 2451–2486.
119. Lewellen, W. G., Lease, R. C., and Schlarbaum, G. G. (1977). Pattern of Investment Strategy and Behaviour among Individual Investors. Journal of Business, 50, 296-333.
120. Lee, Y., Wang, G., Kao, K., Chen, C., & Zhu, F. (2003). The Investment Behavior, Decision Factors and Their Effects Toward Investment Performance in the Taiwan Stock Market. Journal of Global Business Management. Retrieved from [http://www.jgbm.org/page/22 Yu-Je Lee.pdf](http://www.jgbm.org/page/22%20Yu-Je%20Lee.pdf)
121. Aggarwal, M. S. and Verma, H.L. (2014), Investors' Perceptions on Trading Volume and Stock Return Volatility in Indian Stock Market, The IUP Journal of Applied Economics, 54 Vol. XIII, No. 4.
122. Sitlani, M., Sharma, G. and Sitlani, B. (2011), The IUP Journal of Behavioral Finance-“Investment choice of occupants of financial services industry”, Vol 8, No 1, 2011, pp. 29-39.
123. Maruthupandian, P. (2001), “A Study On Equity Investor's Awareness” unpublished thesis, Bharathiyar University , Tamilnadu.
124. Massimo, M. and Andrei, S. (2005), “Behavioral Biases and Investment”, Review of Finance, Vol. 9, No. 4, pp. 483-507.

125. Carhart, M. M. (1997) On Persistence in Mutual Fund Performance, *Journal of Finance*, 52(1): 57–82,1997.
126. Mehta,K.and Sharma,R. (2015),Individual Investors’ Behavior :In Demographical Backdrop, *SCMS Journal of Indian Management*.
127. Mishra, S. K (2011), “A Comprehensive Model on the Investment Behaviour of Mutual Fund Investor”, Ph. D. Thesis of Shri Mata Vaishno Devi University, Katra (India)
128. Mistry,K.(2015), A Study of Individual Investors’ Behavior in Stock Market- With Special Reference to Indian Stock Market, *International Journal of Management and Commerce Innovations* ISSN 2348-7585 (Online)Vol. 3, Issue 1, pp: (541-545),
129. Nagpal,S. and Bodla,B. S. (2009), Impact of Investors’ Lifestyle on Their Investment Pattern: An Empirical Study *The IUP Journal of Behavioral Finance*, Vol. VI, No. 2,pg 28-51.
130. Nagy, R. A. and Obenberger, R. W. (1994), Factors Influencing Individual Investor Behavior, *Financial Analysts Journal*, Vol. 50, No. 4, pp. 63-68.
131. Narayana, D. L. (1976), “Income, Saving and Investment of Household Sector in Chittor District”, S.Chand & Co. Ltd., New Delhi, pp. 1-187.
132. Neelakantan, U. (2010). Estimation and impact of gender differences in risk tolerance. *Economic Inquiry*, 48(1), 228–233.
133. Nayak,S. and Sethi,N. (2013), Determinants and Pattern of Saving Behaviour in Rural Households of Western Odisha, Department of Humanities and Social Sciences,National Institute of Technology,Rourkela – 769008 ,Odisha, India.

134. Odean, T. (1998) Are Investors Reluctant to Realise Their losses? The Journal of Finance, 53(5), 1775-1798.
135. Pallavi, E.V.P.A. S.and Raju,T. K. (1999), An Empirical Analysis On Perception Of Retail Investors Towards Derivatives Market With Reference To Visakhapatnam District, Indian Journal Of Management SCIENCE (IJMS) EISSN 2231-279X – ISSN 2249-0280.
136. Pålsson, A. M. (1996). Does the degree of relative risk aversion vary with household characteristics? Journal Of Economic Psychology,17(6), 771–787.
137. Pandit, A. and Yeoh,K. (2014), Psychological Tendencies In An Emerging Capital Market: A Study Of Individual Investors In India, : The Journal of Developing Areas,Volume 48 No. 3.
138. Pandit, A. (2014),Psychological Tendencies In An Emerging Capital Market: A Study Of Individual Investors In India, T H E J O U R N A L O F D E V E L O P I N G A R E A S Volume 48 No. 3.
139. Panjali,N. and Kasilingam, R. (2015), A Study of the Impact of Investors Life Style on Their Investment Behaviour, NBRE-Journal,Volume1,Issue 1,ISSN 2455-6264 .
140. Parimalakanthi, K. and Kumar,M. A. (2015), A Study Pertaining to Investment Behaviour of Individual Investors in Coimbatore City, International Journal of Advance Research in Computer Science and Management Studies Volume 3, Issue 6.

141. Paul, T. and Bajaj,S.(2012) Influence of demographic profile of equity investors on their level of awareness about equity market, The International Journal Of Management (ISSN 2277-5846)
142. Peteros, R. and Maleyeff, J. (2013), “Application of Behavioural Finance Concepts to Investment Decision-Making: Suggestions for ImprovingInvestment Education Courses”, International Journal of Management, Vol. 30,No. 1, Part 2, pp. 249-261.
143. Phadke,C.D.(2015), Study of capital market in emerging economies, The Business & Management Review, Volume 5 Number 4.
144. Praba,R. S. and Malarmathi, K. (2015), Impact of financial Situation on the Households Investment decisions – A Study on Investment decision making Behaviour.
145. Prechter R. Jr. (1999). Unconscious Herdingbehaviour as the Psychological Basis of financial Market trends and patterns. Journal of Psychology and FinancialMarket.
146. Prosad,J.M., Kapoor,S., Sengupta, J. (2015), Exploring optimism and Pessimism in the Indian equity market Review of Behavioral Finance,Vol. 7 No. 1, ©Emerald Group Publishing Limited,1940-5979DOI 10.1108/RBF-07-2013-0026, pp. 60-77.
147. Rajarajan, V. (2002-03a). “Determinants of portfolio Choice of individual investor.” The Indian Economic Journal,50(1), July-September, 81-84.
148. Rajarajan, V. (2003), “Investors Demographics and Risk Bearing Capacity”, Finance India, Vol. XVII, No.2, June, pp.565-576.

149. Ramesh, N. G. M. (2012). A study on relevance of demographic factors in investment decisions. *International Journal of Financial Management*, 1(1).
150. Rao, P. V. D., Chalam, G. V. and Murty, T. N. (2013), Demographic variables influencing in the retail investors' investment – a scientific analyses, *International Monthly Refereed Journal of Research In Management & Technology*, 131, Volume II, ISSN – 2320-0073.
151. Rastogi, S. (2015), Differences in Behavioral Biases in investment decision making: Gender and Occupation Perspective, *Journal of International Business and Economy*.
152. Ray, K. K. (2009), Investment Behavior and the Indian Stock Market Crash 2008: An Empirical Study Of Student Investors, *The IUP Journal of Behavioral Finance*, Vol. VI, Nos. 3&4.
153. Razek, Y. H. A. (2011), “An Overview of Behavioral Finance and Revisiting the Behavioral Life Cycle Hypothesis”, *The IUP Journal of Behavioral Finance*, Vol. VIII, No. 3, pp. 7-24.
154. Reddy, S. N. and Reddy, V. H. (2009) A study on investors behaviour towards mutual fund products, *TIET & TIME Research & Consultancy Division*, TIRUPATI – 517 501,
155. Regina, P. A. L. (2010), “A Study on the Individual Investor Behaviour in Capital Market with Special Reference to Tamilnadu”, Ph. D. Thesis of Bharathidasan University.
156. Ritter, J. R. (2003), Behavioural Finance, *Pacific-Basin Finance Journal*, 11(4): 429–437.

157. Roopadarshini, S. (2014), A Study on Implication of Behavioral Finance towards Investment Decision Making on Stock Market, Asia Pacific Journal of Management & Entrepreneurship Research (APJMER), Volume 3 Issue 1 ISSN 2277-8098.
158. Roszkowski, M. J., Snelbecker, G.E. and Leimberg, S.R. (1993) Risk-tolerance and Risk Aversion”, In S.R. Leimberg.
159. Rozeff, M.S. (1975) The Money Supply And the Stock Market - The Demise of a leading Indicator, Financial Analysts Journal .
160. Sachithanantham, V., Sayed, J. R. and Suresh, K. A. (2007). “Investors’ Perception towards Capital Market Reforms in India”. SMART J. of Business Management Studies. 3(1):39-45.
161. Saha, S. and Dey, M. (2011) Analysis of Factors Affecting Investors’ Perception of Mutual Fund Investment, The IUP Journal of Management Research, Vol. X, No. 2.
162. Sahi, S. K., Arora, A. P. and Nand, D. (2013), “An Exploratory Inquiry into the Psychological Biases in Financial Investment Behavior”, The Journal of Behavioral Finance, Vol. 14, No. 2, pp. 94-103.
163. Samudra, D. A. and Burgate, D. M. (2012). A study on Investment Behavior of Middle Class Households in Nagpur. International Journal of Social Science & Interdisciplinary Research, 1(5), 43-54. Retrieved from http://www.indianresearchjournals.com/pdf/IJSSIR/2012/May/7_IJS_MAY2012.pdf.

164. Sankararaman,G., Murugesan,P. and Thomas,T.C.(2009), A Study On Astrological Impact Like Ragu Kalam, Yama Kantam, Ashtami And Navami On Investment Decisions, © The Journal Contemporary Management Research, Vol.3, No. 2.
165. Schmeling, M. (2009), Investor Sentiments and Stock Returns: International Evidence, *Journal of Empirical Finance*, 16(3): 394–408
166. Sehgal,S., Sood, G.S. and Rajput, N. (2009), Investor Sentiment in India: A Survey, *VISION—The Journal of Business Perspective* 1 Vol. 13 1 No. 2 1 .
167. Shah, M. and Verma, A. (2014), Analysis of Investment Behaviour during Recovery Phase among Youth Investors of Indian Stock Market, *Vision* 15(1) 1-9
© 2011 MDI SAGE Publications Los Angeles, London, New Delhi, Singapore, Washington DC.DOI:10.1177/097006291101500101.
168. Shafi, H. (2011), “Relationship between Risk Perception and Employed Investment Behavior”, *Journal of Economics and Behavioral Studies*, Vol. 3, No. 6, December 2011, pp 345-355.
169. Shaik, A. M. P., Murty, T. N., Krishna, R. V. and Kiran, V.H. G. (2012). Investment Objectives of The Retail Equity Investors In India. *International Journal of Social Science & Interdisciplinary Research*, 1(7). Retrieved from <http://indianresearchjournals.com/pdf/IJSSIR/2012/July/4.pdf>.
170. Shapira, Z. and Venezia, I. (2001), “Patterns of Behavior of Professionally Managed and Independent Investors”, *Journal of Banking and Finance*, Vol. 25, No. 8,pp. 1573-1587.

171. Shaw, K.L.(1996). An Empirical Analysis of Risk Aversion and Income Growth, *Journal of Labor Economics*,14, pp. 626-653.
172. Shefrin, H. (2000). *Beyond Greed and Fear: Understanding Behavioural Finance and The Psychology of Investors*. New York: Oxford University Press.
173. Sikidar, S. and Singh, A. P. (1996), “Financial services: Investment in equity and Mutual funds-A behavioral study”, in Bhatia B.S., and Batra G.S.(ed.) *Management of financial services*, deep and deep publications, New Delhi, Page No.(136-145).
174. Sindhu, K. P. and Kumar, S.R.(2014),Influence of Risk Perception of Investors on Investment Decisions: An Empirical Analysis, *Journal of Finance and Bank Management*, Vol. 2, No. 2, pp. 15-25,ISSN: 2333-6064.
175. Sireesha,P. B. and Sreelaxm, C. (2013), Impact Of Demographics On Select Investment Avenues: A Case Study Of Twin Cities Of Hyderabad And Secunderabad, India, *International Journal of Marketing, Financial Services & Management Research* ISSN 2277- 3622,Vol.2, No. 6.
176. Slovic, P.(1972). “Psychological study of human judgment: Implications for investment decision making”, *Jouranal of finance*, Page No.(779-801).
177. Sridhar.R. (2008). “Investment Practices of Investors in Equity Market”.
178. Srivastava, S. (2012). Rational Investment Decisions of Irrational Household Investors. *Global Research Analysis*, 1(7), 59-61.
179. Sulaiman,E. K. (2012),An Empirical Analysis of Financial Risk Tolerance and Demographic Features of Individual Investors, Available online www.sciencedirect.com, *Procedia Economics and Finance* 2 , 109 – 115..

180. Sultana, S.T. and Prardhasaradhi S.(2011), An Empirical Investigation of the Relation between Risk Tolerance and Socioeconomic Characteristics Of Individual .Investors, *Advances in Management* Vol.4(10).
181. Sultana, S. T. (2010). An empirical study of Indian individual investors' behavior. *Global Journal of Finance and Management*, 2(1),19–33.
182. Suman, and Warne, D. P. (2012) “Investment Behaviour of Individual Investor in Stock Market”Volume 2, Issue 2.
183. Sung, J. and Hanna, S. (1996) Factors Related to Risk Tolerance, *Financial Counseling and Planning*, 7, pp. 11-20.
184. Thaler, R. H. (2005). *Advances in Behavioural Finance* (e-Book) (Vol. 11). <http://press.princeton.edu/titles/7944.html>: Princeton University Press.
185. Vikram, S. (2008), “Investor perception and preferences towards stock market investments”.
186. Warren, W. C., Robert, E. S., William, C. M. (1996). “Using Demographic and the Life Style Analysis to Segment Individual Investors”. *Financ. Anal.*, 20: 74-77.
187. Wang, H. and Hanna, S. (1998). Does risk tolerance decrease with age? *Financial Counseling and Planning*, 8(2).
188. Yao, R. and Hanna, S. D. (2005). The effect or gender and marital status on financial risk tolerance. *Journal of Personal Finance*, 4(1), 66–85.
189. Yao, R., Sharpe, D. L. and Wang, F. (2011). Decomposing the age effect on risk tolerance. *The Journal of Socio-Economics*, 40(6), 879–887.

Annexure-I: Publications/Presentations done out of this Research Work

Publications:

| Title of the Research Paper | Details of the Journal | Month & Year of Publication |
|---|--|-----------------------------|
| Motivation of Studying Investment Behaviour of Retail Investors of Ranchi in Indian Stock Market | International Journal of Research in Management & Social Science (ISSN 2322-0899) Vol. 3, Issue 2, pp 80-86 | April-June 2015 |
| Study of Risk Appetite of Retail Investors of Ranchi in Indian Stock Market. | International Journal of Applied Financial Management Perspectives (ISSN: 2279-0896), Vol. 4, No. 2, pp. 1770-1777 | July 2015 |
| Assessment of Risk Appetite of Retail Investors: A Strategic Agenda For More Participation of Ranchi (India) Based Investors in Indian Stock Market | Dharohar International Journal; Volume 05 Issue 01 ISSN: 2455-4448,pg.32-43 | Dec 2016 |
| Retail Investors in Indian Stock Market: A Study Based on Risk Tolerance | Chapter in Book titled "Rural India: Strategizing Business" ISBN:-13: 978-1542495318, pp. 132-141 | Jan 17 |

Presentation:

| Title of the Research Paper | Details of the Conference/Seminar | Month & Year of Publication |
|---|---|-----------------------------|
| Assessment of Risk Appetite of Retail Investors: A Strategic Agenda for More Participation of Ranchi (India) Based Investors in Indian Stock Market | Dutta Meghe Institute of Management Science,Nagpur, 5 th International Conference ELIXIR 2016 On "Emerging Economies: Managing Trade & Turbulence" | 17 Dec 16 |
| Retail Investors in Indian Stock Market: A Study Based on Risk Tolerance | Asian School f Business Management, Bhubaneshwar, 4 th National Management Convention -2017,"Rural India:Strategising Business" | 20 & 21Jan 17 |

[For Ascertaining Investment Pattern]

Q1. What percentage of your income do you save tentatively?

- a) Less than 10% b) 10-20% c) 20-30% d) 30-40% e) More than 40%

Q2. Which of the following avenues have you have opted for the utilisation of your saving volume? (Can pick up multiple options)

- a) Banks (FD) b) Post office c) Insurance d) Real Estate e) Equities
f) Mutual Fund g) Government securities h) Gold i) Money-lending
j) Others _____ (Pl specify, if any)

Q3. What (tentative) percentage of your investible amount you put on the following heads?
(Please mention tentative % figure for different modes of investment, as applicable)

| Mode of Investment | Tentative percentage Invested |
|-----------------------------|-------------------------------|
| Banks (FD) | |
| Post office | |
| Insurance | |
| Real Estate | |
| Equities | |
| Mutual Fund | |
| Government securities | |
| Gold | |
| Money-lending | |
| Others (Pl specify, if any) | |

Q4. What is your primary goal for the funds in your Investment Account?

- a) Current return
b) Accumulation of funds for future use
c) Retirement
d) Financing education
e) Estate planning
f) Major purchase

g) Other (please specify)

Q5. What is the main objective of your investment?

- a) To preserve capital and generate income
- b) To generate moderate capital growth with some income
- c) To generate long-term capital growth
- d) To generate aggressive capital growth over the long-term

Q6. Investments with volatile investment returns generally offer higher potential gain than investments with fixed returns. However, the risk of loss is higher in the former case. You are willing to assume exposure to;

- a) Fixed income securities only
- b) Variable income securities only
- c) A combination of both fixed income and variable income securities

Q7. Considering the Risk-Return aspect, please tick the period for which you invest.

- (a) Less than 1 year (b) 1-3 years (c) 3-5 years (d) More than 5 years

Q8. Please tick your frequency of checking the performance and Status of the Fund.

- (a) Daily (b) Weekly (c) Monthly (d) Quarterly (e) No specific time

Q9. How do you collect information about the funds? (Please Tick)

- (a) Print media (b) Electronic media (c) Friends and Relatives (d) Financial Advisors (e) No Specific Source.

[For Assessing Risk Appetite Score]

| Questions with Options to Tick | Risk Tolerance Score (Won't be shown to the Respondents. Will be used in Analysis) | Weight of the Question |
|---|--|------------------------|
| Q1. You take a job at a fast-growing company and are offered the following choices. Which one would you pick? | | 7 |
| f) A conventional form of employment contract of working till the retirement age with normal course of prospects | 0 | |
| g) A five year employment contract with an option with a potential to earn a bonus of 50% depending on company performance | 25 | |
| h) A five year employment contract with the option to use your 50% bonus accrued to buy the company's shares at a set price | 50 | |
| i) A one year contract with a potential to earn a bonus | | |

| | | |
|---|------------|-----------|
| depending on company performance | 75 | |
| j) A one year contract with the option to use your bonus to buy the company's shares at a set price | 100 | |
| Q2. If you have invested in a share and on the next trading day it declines by 10%, what will be your reaction? | | 1 |
| a) You will wait and watch the stock since you have chosen fundamentally strong stock. | 50 | |
| b) You will go for averaging by taking more shares at lower rate | 100 | |
| c) You will book losses and exit from the stock to avoid any further deceleration | 25 | |
| d) You will retain the stock and at the same time buy some other stocks in speculation | 75 | |
| e) You will book losses, exit from the stock and won't be ready to make investment in future on any stock | 0 | |
| Q3. You need to cross a big Canal near your residence in order to catch the Bus on the other side of the Canal to face an interview. You are not a very good swimmer. Which of the following you would like to do? | | 9 |
| a) Cross the canal through the wooden Bridge located at a distance of 0.5 km from your residence which has been bit unsafe since last couple of months | 100 | |
| b) Cross the canal through the concrete Bridge located at around 5 km away from your residence | 25 | |
| c) Cross through two ropes strongly tied with iron poles across the canal very close to your residence | 50 | |
| d) Cross the canal swimming across and then dress up on the other side to get ready for interview | 75 | |
| e) Cross the canal through the concrete Bridge located at around 5 km away from your residence one day before the interview day in order to avoid failure in reaching interview spot on time. | 0 | |
| Q4. Your only 5-year old child got affected by common influenza. Near your residence, there is a medicine shop, the owner of which has been successfully giving medicines since its inception for such type of minor diseases without having Doctor's prescription. Which of the following will be your action? | | 10 |
| a) Will consult the medicine shop keeper and give the medicine as per his advice | | |
| b) Will go for govt. hospital located 5 km away from your residence | 75 | |
| c) Will go for a reputed private clinic which is 15 km away from your residence | 50 | |
| d) Will not go for medicine with the impression that the common influenza will get cured automatically within a couple of days | 25 | |
| e) Will call the doctor to your residence immediately and on his prescription you will go for specialty hospital | 100 | |
| | 0 | |
| Q5. You are on probation in your service. No leave is credited to your account. But you have an urgency to attend the marriage ceremony of your best friend. What will you do? | | 8 |
| a) Will go for attending the marriage without caring the consequence of absence in the Office | | |
| b) Will silently drop the idea of attending the marriage function without caring for strain on friendship | 100 | |

| | | |
|--|----------------------------|---|
| c) Will go to the Office, sign on the attendance register and move out to attend the function without informing anybody d) Will approach the Boss for a special leave and if the Boss does not allow, will convey the same to the friend e) Will beg excuses from the friend for not attending the function without requesting your Boss for the leave | 50 75 0 25 | |
| Q6. You have a surplus income of Rs. 50000/- in your hand. Which of the following you would prefer to do? a) Will put your money in fixed deposit for 9% rate of interest per annum b) Will lend to one of your friends who is ready to pay 60% rate of interest per annum but without any mortgage c) Will lend to one of your neighbours who will give you 36% rate of interest with a mortgage of an asset valuing Rs. 30000/- d) Will prefer to put in stock market through one of your friends as you are not aware of the functioning of stock market e) Will start a small seasonal business like crackershop, Rakshi shop, etc. | 0 100 75 50 25 | 2 |
| Q7. If you have a choice to invest in Real Estate what would be your preference? a) Metros b) A-Grade Cities c) B-Grade Cities d) Sub-Urban Areas e) Rural Areas (Farm Houses) | 0 25 50 75 100 | 6 |
| Q8. Considering money is not a factor you would like to go for a) Primary Education Business b) Senior Secondary Education Business c) General Graduation Courses d) Specialized Courses e) Super Specialized Courses | 0 25 50 75 100 | 3 |
| Q9. Would you like to invest in small cap penny stock where chances of getting double are fair within a year or it may get vanished . a) 100% of your investment you would like to invest in the same b) 75% of your investment you would like to invest in the same c) 50% of your investment you would like to invest in the same d) 25% of your investment you would like to invest in the same e) 0% of your investment you would like to invest in the same | 100 75 50 25 0 | 4 |

| | | |
|--|------------|----------|
| Q10. If you are going to do the business what it could be among given options? | | 5 |
| a) Perishable goods. | 100 | |
| b) Semi-perishable goods | 75 | |
| c) Non-perishable goods | 50 | |
| d) Wooden Products | 25 | |
| e) Metal Products | 0 | |

Place: _____ Date: _____ Signature: _____

Thank you for taking the time to respond.

Annexure-III: Questionnaire for Non-Investors

[Personal Details]

Dear Sir/Madam,

Your participation and cooperation are solicited for this study. The data collected through this questionnaire will be purely used for academic purpose and confidentiality in all respect will be maintained.

10. Name of the Respondent:

11. Gender: Male [] Female []

12. Address:

Village: _____ Tehsil: _____

District: _____ State _____

13. Contact No.:

14. Age:

Below 18 [] 18-35 [] 36-53 [] 54-71 [] 72 and above []

15. Educational Qualification:

Below 10th [] 10th [] 10+2 [] Graduate [] Post Graduate []

Professional (Pl. Specify) _____

16. No. of Family Members:

17. Occupation:

18. Annual Income:

I am voluntarily willing to undertake this questionnaire required for the Research work.

Date:
Respondent)

(Signature of the

Place:

[For Ascertaining Investment Pattern]

Q1. What percentage of your income do you save tentatively?

- b) Less than 10% b) 10-20% c) 20-30% d) 30-40% e) More than 40%

Q2. Which of the following avenues have you have opted for the utilisation of your saving volume? (Can pick up multiple options)

- a) Banks b) Post office c) Insurance d) Real Estate e) Equities
 f) Mutual Fund g) Government securities h) Gold i) Money-lending
 j) Others _____ (Pl specify, if any)

Q3. What (tentative) percentage of your investible amount you put on the following heads?
 (Please mention tentative % figure for different modes of investment, as applicable)

| Mode of Investment | Tentative percentage Invested |
|-----------------------------|-------------------------------|
| Banks | |
| Post office | |
| Insurance | |
| Real Estate | |
| Equities | |
| Mutual Fund | |
| Government securities | |
| Gold | |
| Money-lending | |
| Others (Pl specify, if any) | |

Instruction: Rate the following in 1-5 point scale; 1 for lowest level of agreement 5 for highest level of agreement

| Statement | Rating | | | | |
|---|--------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| I don't invest on equity because, it's not my thing as I lack knowledge (Lack of knowledge) | | | | | |
| I don't invest on equity because, I don't have requisite level of courage to take risk (Lack of risk taking capacity) | | | | | |
| I don't invest on equity because, I don't have enough surplus income to invest in | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| stock market (Lack of surplus) | | | | | |
| I don't invest on equity because, I don't have time to even think about it since I am doing job/business and running behind other things like passion/return on investment (Lack of time to be vigilant every now and then) | | | | | |
| I don't invest on equity because, as per word of mouth, those who invest in equity, they usually lose their principal even (Negative word of mouth) | | | | | |
| I don't invest on equity because, I have the fear of being cheated by financial advisors and/or companies going bankrupt (Fear of being cheated) | | | | | |
| I don't invest on equity because, I hate the stock market volatility (Stock Market Volatility) | | | | | |
| I don't invest on equity because, data available on equity investment is so confusing, it's really difficult what to believe and what not (Misleading data) | | | | | |
| I am not investing on equity and will never invest on it | | | | | |

Thank you for taking the time to respond.

**Annexure-IV (Focused Group Discussion Format for Stretching the
Depth of Investment in Indian Stock Market)**
Focus Group Introduction

Welcome:

Thanks for agreeing to be part of the focus group. I appreciate your willingness to participate.

Introductions: Moderator (The Researcher: Mrs. Jyoti Kumari)

Purpose of Focus Group:

As I am doing a research project on ‘Analysis of Investment Behaviour with Reference to Retail Investors of Ranchi in Indian Stock Market’, as a research tool, I am to conduct a focus group discussion (FGD) to get some information related to ‘stretching the depth of investment in Indian Stock Market’. For your kind information, there are three categories of investors – Investors with high risk-taking capacity, Investors with medium risk-taking capacity and Investors with low risk-taking capacity. We expect all of you to give your views on how to strategize so that the depth of investment will be enhanced. While giving your views, you are requested to look into demographic factors and risk tolerance capacity. We need your input and want you to share your honest and open thoughts with us.

Rules:

1. Please ‘Do the Talking’: I would like everyone to participate. I may call on you if I haven't heard from you in a while.
2. There is no Right or Wrong Answers: Experiences and opinions of each one of yours are important. Please speak up whether you agree or disagree. Wide range of opinions is welcome.

3. Confidentiality of Views: Views Expressed over here will be confidential and summary of the Discussion will be used for academic purpose without singling out the views of individuals.

FGD Format of Documentation of Views

| | | Cluster of Investors: Investors with | | |
|---------------------------|---------------------|---|-----------------------------|--------------------------|
| | | High Risk-Taking Capacity | Medium Risk-Taking Capacity | Low Risk-Taking Capacity |
| Income-Group | Higher Income Group | | | |
| | Medium Income Group | | | |
| | Lower Income Group | | | |
| Age | 18-35 | | | |
| | 36-53 | | | |
| | 54-71 | | | |
| | 72 & Above | | | |
| Educational Qualification | Graduate | | | |
| | Post-Graduate | | | |
| | Professional | | | |
| No. Family Members | Below 3 | | | |
| | 3-5 | | | |
| | 6-8 | | | |
| | 9 & Above | | | |
| Occupation | Business | | | |
| | Govt. Jobs | | | |
| | Pvt. Jobs | | | |
| | Self-Employed | | | |
| | Home-Maker | | | |

**Annexure-V (Focused Group Discussion Format for Substantiating
why non-investors don't prefer to invest)
Focus Group Introduction**

Welcome:

Thanks for agreeing to be part of the focus group. I appreciate your willingness to participate.

Introductions: Moderator (The Researcher: Mrs. Jyoti Kumari)

Purpose of Focus Group:

As I am doing a research project on 'Analysis of Investment Behaviour with Reference to Retail Investors of Ranchi in Indian Stock Market', in order to substantiate the findings regarding why people don't invest in Indian Stock Market, opinions of you like experts (financial advisors and marketing executives of different brokerage house, who have direct interface with the potential investors and work for stretching the incidence of retail investment in Indian Stock Market) are solicited. We need your input and want you to share your honest and open thoughts with us.

Rules:

1. Please 'Do the Talking': I would like everyone to participate. I may call on you if I haven't heard from you in a while.
2. There is no Right or Wrong Answers: Experiences and opinions of each one of yours are important. Please speak up whether you agree or disagree. Wide range of opinions is welcome.
3. Confidentiality of Views: Views Expressed over here will be confidential and summary of the Discussion will be used for academic purpose without singling out the views of individuals.

For your kind information, the Criterion Variable is that 'I am not investing on equity and will never invest on it' for which eight predictor variables related to factors which act as barriers for not investing and on which the data has been collected are;

V₁: I don't invest on equity because; it's not my thing as I lack knowledge
(Lack of knowledge)

V₂: I don't invest on equity because; I don't have requisite level of courage to take risk (Lack of risk taking capacity)

V₃: I don't invest on equity because; I don't have enough surplus income to invest in stock market (Lack of surplus)

V₄: I don't invest on equity because; I don't have time to even think about it since I am doing job/business and running behind other things like passion/return on investment (Lack of time to be vigilant every now and then)

V₅: I don't invest on equity because; as per word of mouth, those who invest in equity, they usually lose their principal even (Negative word of mouth)

V₆: I don't invest on equity because; I have the fear of being cheated by financial advisors and/or companies going bankrupt (Fear of being cheated)

V₇: I don't invest on equity because; I hate the stock market volatility (Stock Market Volatility)

V₈: I don't invest on equity because; data available on equity investment is so confusing, it's really difficult what to believe and what not (Misleading data)

Here 'I' stands for the Respondent, i.e., who don't invest in Indian Stock Market.

Please give your views on each of the variables identified above whether they act as barrier factor for investing in Indian Stock Market and why?