CHAPTER - 2

REVIEW OF LITERATURE

Literature Review is "a systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners."

- Arlene Fink

This chapter provides the reviews of the related literature in the selection of mutual funds. The available literature to the present study has been deeply reviewed to understand the work done so far and helped the researcher in fine-tuning the problem already selected. It also helps in identifying the research gap.

Reviews are arranged systematically based on the objectives of the study. They are as follows:

2.1 Financial literacy and awareness level of mutual fund investors
2.2 Personality traits and risk tolerance level of investors
2.3 Factors influencing mutual fund selection of investors

2.1 Financial literacy and awareness level of mutual fund investors

Financial literacy is one of the important variables which influences the awareness and adoption of different financial products and schemes. It is a combination of skills and knowledge that allows an individual to make an informed and an effective decision through their understanding of finance.

According to RBI, Financial literacy can broadly be defined as “providing familiarity with and understanding of financial market products, especially rewards and risks, in order making informed choices”. Level of financial literacy has been studied in many countries by different authors from different aspects. Some of their works are listed below.

Bernadette D’silva, Stephen D’silva and Roshni Subodh kumar Bhuptani (2012) in their research work concentrated the factors that influence
the mutual fund investment decision. Primary data collection method was used to collect data from 101 investors of Mumbai city. Descriptive statistics, ANOVA, Friedman Test, and KH Test were employed to analyse the role of demographics in mutual fund selection behaviour. The analysis revealed that financial literacy level of investor plays an important role in mutual fund investment decision. The study also showed that, there exists a vast difference in their investment objective and in their educational qualification, their rankings towards the investment parameters also creates a significant difference. The authors have suggested the mutual fund companies to create mutual fund awareness among the investors by conducting the awareness programmes.

Thilakam and Ganesan (2012) showed their interest towards analysing the financial literacy level of the rural masses with the help of a well framed questionnaire. A survey was made with 2050 respondents from the villages of Coimbatore district and tools such as summary statistics, chi-square, F test, correlation, factor analysis and rankings were applied to analyse the collected data. The analysis revealed that, the respondents have a reasonable knowledge on savings and investment medium and have found a positive correlation between savings in bank and awareness towards national saving certificates. Their study disclosed that, 29.31 per cent of rural households have gained knowledge about saving/investment avenues through business channels and found an association between level of awareness and socio-economic status. From the study it is concluded that the safety of money recorded as the most important factor which influences the rural respondents to save and invest.

Johan Almenberg and Anna Dreber (2011) have used two sets of questions in their study, the first part deals with the basic financial aspects and the second part deals with advanced financial literacy questions. To explore the link between financial literacy and the gender gap in stock market participation, the data have been taken from the 2010 consumer survey conducted by the Swedish Financial Supervisory Authority, where 1300 participants constituted a sample for the study. The results indicated that, women are found to be educated, have lower income, scores low on financial literacy, less risk tolerant
than men and are less likely to participate in the stock market. The regression analysis explained that advanced financial literacy was positively correlated with risk-taking and basic financial literacy was not found to be correlated. The female co-efficient was found to be negatively correlated with the risk-taking. The authors have pointed out an important need that is to increase numeracy skills of women in order to encourage them to participate in the stock market.

Lakshmana Rao (2011) has made an attempt to evaluate the investor’s awareness and adoption towards mutual fund in terms of different educational levels. The data were collected from 350 respondents of Visakhapatnam, Vizianagaram and East Godavari districts of Andhra Pradesh and has observed that the awareness and adoption of mutual fund schemes increased proportional to an increase in education. The awareness and adoption of equity fund scheme was found to be the highest, followed by balanced fund scheme and ELSS scheme. In a concluding remark he has suggested that the regulatory authorities, AMFI and Asset management companies have to conduct educational orientation programmes in collaboration with universities, Institution and Stock exchanges in order to create more awareness about available investment avenues.

SEBI- NCAER (2011) has examined the different aspects of savings and investment behaviour of household investors. More than 30,000 households were surveyed with an aim to understand the profile of investor’s savings and investment behaviour in relation with income and expenditure, their preference towards financial instruments, their risk profile and the impact of SEBI’s recent rules and regulations. The study revealed that fifty four percent of the investors prefer commercial banks and insurance as their primary choice of investment, it also found that very low per cent of households have participated in the financial markets and out of that 43 per cent choose mutual funds as their investment; this is because of inadequate information about financial markets and low awareness about the financial products. The report indicated that creating more awareness about financial products will help in increasing the participation of investors in primary market as well as in the secondary market.
Simran Saini et al. (2011) surveyed about investor’s preferences, priorities and their awareness towards investment avenues particularly the mutual fund. The study employs both primary and secondary data; stratified sampling method was used to collect primary data from 200 respondents of Chandigarh and secondary data were collected from the AMFI, SEBI and from Asset management companies. Tools such as descriptive statistics and chi-square were applied to analyse the main objectives behind investing in mutual fund schemes, role of financial advisors and brokers, investor’s opinion regarding mutual fund, source of information and fault in the services. The analysis reveals that the investors have positive approach towards mutual funds. The authors suggested to the fund managers to provide more appropriate and timely information to the investors in order to attract more number of investors into the industry. They also suggested to the managers to provide more innovative schemes and formulate new strategies to fulfil the expectation of the investors.

Annamaria Lusardi, Olivia S. Mitchell, and Vilsa Curto (2010) dealt with three questions namely (i) Are the young people adequately equipped to take financial decision? (ii) What are the determinants of financial literacy among the young people? and (iii) How can this information aid policymakers seeking to devise interventions aimed at young consumers? Using the data set of the 1997 National Longitudinal Survey of Youth, the authors have examined the level of financial literacy among the young people. The study showed that only 27 per cent of the youths could do simple interest rate calculations and knew about inflation and risk diversification. Women were found to be less financially literate than men. Parents with higher education or families possessing stocks were found to be more literate than those who do not possess. The study concluded that family situation and their demographic characteristics were strongly related with financial literacy.

Maria Paula Calamato (2010) has surveyed a sample of 108 undergraduate students from a local state university to find out the relationship between parental involvement and student level of financial literacy. Statistical tools such as factor analysis, regression, chi-square and independent student’s t-
test were used to test the hypothesis that, whether parental involvement increases children’s level of financial literacy. The results of the study indicated that only 9 per cent of the students were able to answer almost all the questions correctly, which implied that most of them have less level of financial knowledge. The study also revealed that parental involvement did not affect children’s level of financial literacy. The independent sample t-test showed that teen-age students were taught financial knowledge from their parents only. To the concluding remark, the researcher has suggested to the college students to take personal finance course for better financial decisions.

Pallavi Seth, Patel and Krishnan (2010) tried to find answers to the following questions (i) if there is any relationship between financial literacy and age, income and education (ii) the most preferable financial instruments amongst the respondents and (iii) the source of information preferred by the individuals while taking investment decisions. Questionnaire method was used to collect data from 105 respondents of Delhi. The collected data were analysed using statistical tools such as descriptive statistics and chi-square. The study revealed that the respondents prefer life insurance as the most preferred financial instrument followed by deposits in bank. People prefer T.V., Newspapers and magazines followed by friends as the important source of information. Brokers are considered as the important source for investing in share markets. The study concluded that financial literacy is found to be affected by age, income and educational level of the individuals.

Sebastian Muller and Martin Weber (2010) have used the data collected from the internet survey conducted in co-operation with a famous ‘Frankfurter Allgemeine Sonntagszeitung’ German newspaper, to establish a relationship between financial literacy and investment behaviour especially the actively managed mutual funds. They concentrate more on the influence of financial literacy and the attitude towards the selection of actively managed funds using three probit regressions and found a strong relationship between financial knowledge and actively managed mutual funds compared to passive funds. Financial literacy is not associated with lower management fees. The study
expressed that highly refined investors also select the actively managed funds though they are aware of other fund alternatives; this is because the investors are unable to select the better performing funds. The authors have found a positive relationship between the belief to be better than average and the possibility to buy an active fund, and better-than-average thinking is positively correlated with financial expertise.

**Hussein A. Hassan Al –Tamimi and Al Anood Bin Kalli’s (2009)** have conducted a research study to analyse the relationship between the financial literacy and the factors affecting the investment decisions. The study revealed that financial literacy levels of UAE investors are found to be less sufficient to make financial decision and it indicated that women are less financially literate than men. The study concluded that there was a significant relationship between financial literacy and investment decisions. A significant difference in the level of financial literacy was found between the respondents according to their gender.

**Annamaria Lusardi (2008)** tried to find an answer to the question that, whether the financial literacy, information and financial education programmes help in taking better investment decision. The analysis revealed that financial knowledge is found to be widely spread among U.S populations. The persons with low level of educational qualification, some specific demographics, African-Americans, and Hispanics were found to be financially literate. Half a percent of the surveyed elder workers were seemed to be unaware of which pension scheme they possess and the majority of the workers aware of the schemes they have. The analysis also indicated that very few people depend on the financial experts, financial advisors for their investment decision. The respondents with low level of financial awareness and insufficient investment information lead to an improper savings and retirement plans. Hence, this study concluded that financial education programmes help the investor in taking better investment decisions.

**Delavande A. S. Rohwedder and R. J. Willis (2008)** have used a model to estimate the financial knowledge score by conducting financial tests based on the cognitive ability and other variables. The researchers have related the level of
financial literacy with wealth creation, according to them acquiring financial knowledge is a human capital investment which helps in gaining higher returns. The theory of human capital describes that, investors decided to invest in the acquisition of financial knowledge by spending money, time, and effort, to get gain from higher risk-adjusted returns on their financial assets. By using the model, it can be derived that financial knowledge allows investors to obtain higher expected rates of return on their assets, for any given level of risk, up to a theoretical maximum on the mean-variance frontier. The model concluded that wealthy people have greater opportunity in acquiring financial knowledge.

Luigi Guiso and Tullio Jappelli (2008) used the Unicredit Client’s survey for their study, which contains details about financial and demographic information. The study mainly focused on the level of financial literacy and the portfolio diversification. The analysis revealed that financial literacy is strongly correlated with the degree of portfolio diversification and low degree of relationship was found between the test-based financial literacy and self-assessed financial literacy. It also indicated that risk-averse investors, elder people, less educated and low income people were found to be less financially literate. The authors suggested to the financial authorities to conduct long-term education programmes to improve financial knowledge and to manage their portfolios.

Clemens Kool and Prast (2007) focus the knowledge, risk-return preference of Dutch employees in the pension domain. They have used two questionnaires to collect the required data from more than 1000 respondents. The first questionnaire focused on knowledge, risk attitude and their preference towards investment of pension and the second questionnaire was used to ask the respondents both the probability distribution of the pension allowance based on one’s own stated preference and the corresponding probability distribution based on the median investment portfolio. The study revealed that risk aversion is high in case of pension schemes and most of the investors are satisfied with the current schemes. Self-assessed risk tolerance and financial knowledge are
important variables in pension selection behaviour but the average investors are reluctant about their retirement savings. They conclude that financial knowledge and the risk tolerance relates inversely with each other.

Maarten van Rooij, Annamaria Lusardi and Rob Alessie (2007) evaluated the importance and influence of financial literacy towards the participation in stock market. Data from 2005 DNB Household Survey (DHS) were used for analysing financial literacy. A questionnaire with basic finance-related questions and advanced finance-related questions were framed and used for data collection. The authors have found lack of financial literacy is one of the main reasons for not participating in the stock market. The literacy level of the respondents significantly related with financial decisions. The persons with low level of literacy were found to be more relying on their friends and family for financial guidance and showed less preference towards the participation in stock and bonds. When comparing to financial literates, the illiterates were less likely to participate in the capital market. The study suggested to the financial advisors to conduct many financial related programmes for the public and make them participate in the stock market.

Ronald P. Volpe, Haiyang Chen and Sheen Liu (2006) in their study attempted to identify important questions that can be used for testing literacy level in personal finance and to understand the level of financial knowledge possessed by the employees. In order to find out the difference between the questions which the respondents felt as important and their understanding of the respondents about the topic, they employed a ‘t’- test and found a large gap exists between the importance and their current level of knowledge possessed by the working adults. The results of the study indicated that the surveyed personnel finance topics are important and the employees are less knowledgeable about the topic. It further revealed that the people are found to be more knowledgeable about their company benefits and possess less knowledge about the investment and estate planning areas. The overall analysis reveals that the selected people
for the survey are not more knowledgeable about personnel finance and their level of knowledge can be improved by conducting educational programmes concentrating more on their deficiency areas.

**Valentine and Khayum (2005)** conducted a study to measure the financial literacy level among high school students of urban and rural areas from southwestern Indiana with a sample size of 312. The study was administered with the help of financial literacy quiz questions, relating to savings account, credit cards, automobile insurance, housing, food and car purchase. It was found that majority of the students are able to answer only 51 per cent of the questions correctly. Hence there is lack of financial knowledge among students. The researcher concludes that there is a financial literacy deficiency among school students.

**Hilgert, Hogarth and Beverly (2003)** have analysed the impact of financial knowledge towards the financial behaviour. The study covered different aspects like cash-flow management, credit management, savings and investment and others relating to finance. The question like quiz score method was used to collect the needed data, the questions cover the financial aspects and help in identifying the financial behaviour. The analysis revealed a strong relationship between financial knowledge and their financial practices. The financial knowledge scores are statistically significant with the financial performance. The authors concluded that the increase in financial knowledge and their financial behaviour influences the better financial practice.

**Haiyangchen and Volpe (2002)** have conducted a survey with more than 1000 college students with an aim to test the gender differences in personal finance. To understand the level of financial knowledge the researchers have used a questionnaire covering the question of savings and borrowings, insurance and investments. The collected responses from 924 usable questionnaires were analysed using statistical tools such as descriptive statistics, ANOVA and Chi-square test. They categorized the peoples based on three categories (ie.) the persons who scored between (0 to 30 %) were treated low level of knowledge, (40 to 59 %) were considered to be medium and (60 to 100%) were treated as
highly knowledgeable. The study showed that education and experience have an impact on the financial literacy. While comparing with men, women did not felt personal finance as important. They concluded that women are less enthusiastic, less confident and less risk-tolerant than men.

Ronald, Joseph and Haiyang Chen (2002) have jointly showed their interest towards analysing online investor’s investment literacy and tried to find the relationship between financial literacy level and the characteristics of online investors. The authors have collected data from 530 online investors and have applied descriptive statistics, ANOVA and Logistic regression to determine the online investors knowledgeable about basic investing concepts and tools. The analysis reveals that 50 per cent of the answers were found to be correct which indicated a deficiency in investing concepts and financial knowledge. The elder people are found to be more knowledgeable than the younger people, female scored lower than the males and the investors who used online for investment purpose were found to be more experienced and knowledgeable than who do not use. They have suggested to the investors that they should be aware and understand about the investment before taking an investment decision to avoid future losses. The authors have concluded that the online investor’s investment knowledge is inadequate to perform the competitive capital market.

Chen and Volpe (1998) have examined the financial knowledge of 924 college students from 13 colleges in USA. They also tried to find out the relationship between gender, age, nationality, race, income, work experience, academic discipline and class rank with financial literacy level. The results showed that male student seem to be more knowledgeable than female students, Minority students tend to score lower in financial literacy knowledge and practices compared to whites. The study also revealed that subgroups of academic discipline, class rank, and years of work experience were significantly different in terms of financial literacy level. Non-business majors, women, students in the lower class ranks, under age 30, and with little work experience
have lower levels of knowledge. They conclude that high school and college students have insufficient knowledge regarding the financial aspects and this can be improved by conducting financial education programmes.

**Syama Sunder (1998)** has made an attempt to study the mutual fund operations and investors preference of Kothari pioneer mutual fund. The awareness level was found to be less and agents played an important role in mutual fund investment. The study revealed that, open-ended schemes were much preferred schemes than other schemes in small cities like Visakhapatnam. He concludes Age, income, return and brand image were found to be the most important factors which influence the mutual fund scheme selection.

**Gordon J. Alexander, Jonathan D. Jones and Peter J. Nigro (1997)** have classified the investors based on the level of financial literacy and their place of mutual fund purchase. A random sampling method was used to collect the required data from 2000 mutual fund investors. A quiz score method was used to analyse the financial literacy level of mutual investors and found that bank and insurance company investors gained significantly lower mean score than other respondents. The investor who purchased mutual funds through multiple channels has scored more than the person who purchased through single channel. Probit model, cluster analysis and t-test were applied to calculate the collected data. The analysis revealed that average quiz score increased with age, education and income. They found that people who are male, working at a financial institution, have more education, earned higher income, own two or more funds and uses financial publication as a source of information and have attained higher financial literacy than others.

A research study by **Madhusudhan V. Jambodekar (1996)** was made with predetermined objectives of, assessing the awareness level of mutual funds among investors, identifying the information sources influencing the buying decision and the factors influencing the choice of a particular fund. After completion of analysis he came to a conclusion that Income Schemes and Open-Ended Schemes are the most preferred schemes, Investors prefer safety of
Principal, Liquidity and Capital appreciation, Newspapers and Magazines play an important role in providing information about mutual Funds schemes. Finally he concluded that an investor service is a major differentiating factor in the selection of Mutual Fund Schemes.

2.2. Personality traits and risk tolerance level of investors

Personality traits and their attitude towards risk have greater impact of one’s investment behaviour. Numerous studies on investment behaviour have also proved that personality traits and risk tolerance of an investor play a major role in the investment decision of an individual. At the time of investment decisions the investor has to come across certain cognitive and emotional weakness. Risk tolerance is one of the important components in investing which is mainly depended on investment objectives and attitude of the investor. It is referred as the degree to which an investor is willing and able to accept the possibility of an uncertain outcome to an economic decision.

Cambell R. Harvey defined risk tolerance as “An investor’s ability or willingness to accept declines in the prices of investments while waiting for them to increase in value”.

Behaviour is the range of actions and mannerisms made by organisms, systems, or artificial entities in conjunction with their environment, which includes the other systems or organisms around as well as the physical environment. The combination of psychology and economics which explains the why and how aspects of investors relating to stock market anomalies is termed as behavioural finance. According to Martin Sewell “Behavioural finance is the study of the influence of psychology on the behaviour of financial practitioners and the subsequent effect on markets”. The studies relating to mutual fund selection behaviour are listed below.

Olweny, Namusonge and Onyango (2013) have classified financial attributes into home ownership and monthly income level, to analyse the effect of financial attributes in investors risk tolerance level. 500 Central Depository System account holders constitute the sample for the study and statistical tools
such as ANOVA and Ordinal Logistic regression model were employed to determine the effect on each variable and to establish the effect of financial attributes on risk tolerance. The study explains that the home owners were more risk-tolerant than non-owners, earning and income of the respondents influence the risk tolerance level of an individual investor. The authors concluded that the wealthy people are not willing to accept higher risks, financial risk tolerance increases with income level and wealth.

Arshi A. Tahseen and S. Narayana (2012) carried out a study to understand the consumer attitude towards financial products, particularly the mutual funds and their risk attitude of the respondents. Systematic sampling method was used to collect data from 200 consumers of Oman and applied a Pearson product moment correlation and multiple standard regressions in order to find probable relationship between the items. The Oman people generally seemed to be risk-averse towards capital markets and are very cautious about the risk involved in the investment while making the financial decisions. To increase the risk appetite of the people and make more people to investment in mutual funds, the authors suggested to the asset management companies and professionals to offer more variety of funds which provides new opportunities in capital markets. The study concluded that implementing suitable strategies will increase the attraction towards mutual funds in Oman.

Thomas and Rajendran (2012) have conducted a study with two parts; one is to construct hypothesized investment choice using the Delphi method and to know the relationship between BB & K five-way personality types and type of investment choice. Using a systematic sampling method 225 responses from Chennai were received and only 195 were fully completed in all aspects, which are used for the study. Regression analysis, chi-square test and factor analysis were applied and found that personality trait of an investor influences the investment choice and the five dimensions, namely adventure, celebrity, individualist, guardian and straight arrow which are significantly related to investor choice and investment type. It is also advised to know the investor personality before investing to avoid unwanted biases in their investment choice.
Vasudevan and Peermohaideen (2012) have documented the investors' perception towards risk involved in mutual funds. The survey was conducted in four districts of Andhra Pradesh with 555 geographically dispersed respondents. Questionnaire method was used to collect data from mutual fund investors and the tools such as percentage and chi-square were employed. The analysis revealed that more than half a per cent of the respondents felt mutual funds involved medium risks, the married investors are found comfortable with the risk involved in mutual funds and the persons with more than six lakhs of annual income felt the risk in mutual fund is low. The authors suggested to the mutual fund companies to educate people about the risk involved in mutual funds in order to create more number of investors. The study concluded that the mutual fund involves medium risk and the returns earned from mutual fund investment were not satisfactory.

Chitra and Ramya Sreedevi (2011) focused their attention towards analysing the influence of seven personality traits on the choice of the investment of the investors. They also aimed at analysing the relationship between demographic profile of the investors and method of investment. Using a systematic random sampling method, the sample investors were surveyed through a scoring questionnaire method and found a strong relationship between personality traits and the method of investment. The study also revealed that the equity investment is mostly preferred by the investors and emotional stability was one of the important factors in influencing the investment decision.

Huei - Wen Lin (2011) aimed at analysing the relationship between psychological traits, demographics and financial behavioural biases of individual investors of Taiwan stock market. In order to find out the determinants of behavioural biases, a convenient sampling method was used to collect the required primary data from 554 individual investors. Two hypotheses were framed to evaluate the impact of big five personality traits and the demographic variables on investment biases were analysed through Structural Equation Model (SEM) analysis. The analysis revealed that, to avoid losses due to disposition effect and herding the investors with stronger neuroticism personality and
conscientiousness personality should set up a stop-loss point and a lock-gain point. The investors with stronger extraversion and openness personality traits should confirm the market information and make up their minds on investing so as to avoid forming the biases of herding and overconfidence. The study further concluded that investment biases of individual investors are significantly related to four personality traits as well as some demographics.

**Manish Mittal and Ram krishna Vyas (2011)** in their research article tried to find answer to the question “Is there any psychological reasons for gender differences in preference for risk and investment decisions?” A mix of judgemental and convenient sampling method was used to collect data from 428 investors of Indore city and tools such as mean, ANOVA, chi-square and Mann-whitney U-test were applied to find out their attitudinal difference towards investing. Analysing the data indicates that Women preferred low risk investment and men showed preference towards high risk investment. This is because to men were more confident and more risk tolerant than women, this overconfidence in their decision making ability of men makes them prefer more risky investment. When compared to men, women seem to be more methodical and lack confidence. The authors concluded that there was a difference between men and women in financial decisions.

**Sarah Brown and Karl Taylor (2011)** used the data from the survey ‘British Household Panel Survey’ conducted by the Institute for Social and Economic Research to analyse the relationship between household finances and personality traits. They have classified the Big Five taxonomy into openness to experience, conscientiousness, extraversion, agreeableness and neuroticism in order to know the impact of personality traits on decisions about unsecured debts and financial assets. Their analyses revealed that extraversion and openness to experience influences the decision regarding unsecured debts and financial assets. Conscientiousness and neuroticism appear to be unimportant in influencing levels of unsecured debt and financial asset holding. They concluded that personality trait played an important role in financial decision-making.
Sayed Rasol Masomi and Sara Ghayekhloo (2011) were interested in investigating the role of behavioural finance and investor psychology in investment decision-making. They have used a sample of 23 fund managers of institutional investors operating at Tehran stock exchange and found that the behavioural factors of the investor influence the investment decision-making process. The behaviour of investors are found strong with the heuristics process than the prospect theory, Anchoring and gamblers fallacy were also found to be prominent. The study concluded that factors such as cultural difference, issues relating to emerging economies, government policies and size of the market influence the decision-making process of the institutional investors.

Syed Tabassum sultana and Pardhasaradhi (2011) conducted a study to establish a relationship between socio-economic variables and risk tolerance level of Indian individual investors. They found that more than 41 per cent of investors are low risk-tolerant, their marital status, earnings, occupation and number of dependents are associated with risk tolerance level and basis of investment decisions and regularity of investment are not associated with the risk tolerance level of individual investors. The study also indicated that too much risk can lead to difficulty of preserving wealth for short-term goals and too little risk may work adversely towards achieving high return in realising long-term financial goals and concluded that, the surveyed investors are conservative who prefer risk-free return even though they are well educated, independent and have high income.

John Gilliam, Swarn Chatterjee, John Grable (2010) in their research paper compared two measures of risk tolerance and tried to find out the association between asset allocation and two measures of risk tolerance. Convenience sampling method was used to collect data from faculty and staff of southwestern public university, which consist of 328 married respondents. To collect the web-based data they have used both Survey of Consumer Finance’s single question measures and a 13-item multidimensional measure developed by Grable and Lytton (1999). Reliability and concurrent validity test were performed to find the soundness and consistency of the questions. The descriptive statistics revealed that women have significantly lower risk
tolerance than men; people between the age group of 36-41 have higher risk tolerance than others and post-graduates have higher risk tolerance. Tobit regression method was used to analyse the association between risk tolerance and asset allocation and suggests that both scales are associated with preference for risky or non-risky asset allocation among respondents, the 13-item scale has greater explanatory power.

**Linden, Nijenhuis and Bakke Arnold (2010)**, made a research on the topic entitled “The General factor of personality: A meta-analysis of big five inter-correlations and a criterion-related validity study”. They used meta-analysis technique to find the correlation between the big five personality traits to analyse the General Factor Personality (GFP). A multi-method validity study testing was done to identify the relationship between the GFP and supervisor-rated job performance. The results of meta-analysis provided supporting evidence for the two meta-factors, stability and plasticity and a GFP at the highest hierarchical level. The validity study indicated that the GFP has a substantive component as it is related to supervisor-rated job performance.

**Nidhi Walia and Ravi Kiran (2009)** followed a selective systematic sampling method to get responses from selected investors of Punjab, assuming that the selected samples are having complete knowledge about the financial environment for analysing the investors risk perception towards the mutual fund services. Based on their age they categorized the investors into aggressive investor; active investors and reflexive investors and found that age and income plays a vital role in setting the investment objective. The Average preference scores method revealed that shares are the most risky investment and mutual funds are opined to be the next risky investment. Chi-square test was applied to find out the association between the income of the investors and risk perception and found a close association between income and risk perception for mutual fund. The study also expressed interdependence between income and perception for return from mutual fund and suggested to the Asset management companies to make innovations in their existing services to attract more investors.
Soumya Guha Deb and Ashok Banerjee (2009) have emphasized the importance of VaR (Value at Risk) as a measure of ‘downside risk’ for Indian mutual fund industry, especially for equity mutual funds. The data needed for the study had been taken from ‘Alpha’ database of CMIE and used the weekly NAV of equity mutual funds for the period from January 2000 to December 2006. To predict their weekly VaR on a ‘rolling’ basis and also to test the robustness and predictive ability of the models they employed two popular ‘back testing’ approaches. They employed three parametric models, namely random walk model, moving average model and exponentially weighted moving average model and applied one non-parametric model, that is, Historical simulation method. By analysing the data the study revealed that the Indian mutual funds have established a considerable downside risk in terms of VaR measures. The researchers have indicated that the random walk model and moving average model have some biases in estimating the VaR but the exponentially weighted moving average model and historical simulation models are free from biases in predicting the value at risk.

Arugaslan, Edward and Samant (2008) studied the relationship between average returns and risk embedded in international mutual funds; they also tried to find whether the financial leverage helps in raising the returns. ‘M’ square model was employed to analyse the risk adjusted returns and the level of leverage to attain the returns. A sample of 72 US-based international mutual funds for 10 year period was taken and found that the funds with the highest average returns may lose their attractiveness to investors once the degree of risk embedded in the fund has been factored into the analysis. The authors concluded that the returns of mutual fund with low level of risk can be boosted with the help of financial leverage.

Cliff Mayfield, Grady Perdue and Kevin Wooten (2008) have examined Big Five personality taxonomy with psychological background towards investment attitude. A survey was conducted with 197 students of business school undergraduates and SEM (Structured Equation Modeling) was used to analyse the impact of specific personality traits. The study revealed that men
show higher interest towards both short-term and long-term investment than women. It also indicated that an extraverted individual invests their money in short-term investment, where an individual with higher neuroticism neglects this type of investment, individuals with openness to experience category engaged in long-term investment. The association between gender and risk aversion was found to be not significant, which implies that women are more risk-averse than men.

**Manish Mittal and RK Vyas (2008)** have tried to examine whether the investors personality and demographic characteristics differ in their choice of investment avenues. A non-probabilistic convenient and judgement sampling method was employed to select the respondents from Indore city. They classified the investors into four types, namely casual, technical, informed and cautious investors and found that casual investors prefer to invest in high risk investment, while technical investors and cautious investors prefer to invest in low risk investment and informed investors prefer to invest in moderate risk investment. Empirical evidence also suggested that factors such as age, income, education and marital status affect an individual’s investment decision. The study concluded that the investor with different investment personality varies with the choice of investment.

**Cong Wang and Sherman D. Hanna (2007)** through their study classified stock owners into three categories, namely persons not owning a business, persons own and manage business and persons that own and do not manage business with an aim to investigate the risk tolerance and stock ownership of households. Data from Survey of Consumer Finance data set were used to study the difference in risk tolerance attitude and risk behaviour decisions of predetermined set of households. Cross tabulation, means test and Logistic regression were applied to find out the risk tolerance behaviour of households and found that persons not owning and managing business were most preferred to hold stocks and to take risk, persons owning and managing business more preferred to take risk than non-owners but were less likely to own stocks than non-owner households.
Lodi-Smith Jennifer and Brent Roberts (2007) applied the meta-analytic technique to find out the relationship between the personality traits and social investment. They classified the social investment in four categories, namely work, family, religion and volunteerism. The three personality traits such as agreeableness, conscientiousness and emotional stability were used to find the relationship. Personality traits such as agreeableness, conscientiousness and low psychoticism are positively related with the social investments. The volunteerism of social investment has a positive relation with the personality domain of Conscientiousness.

Rui Yao, Gutter, and Hanna (2005) have used multiple years of Survey of Consumer Finances (SCF) data, in order to investigate the effect of race and ethnicity on financial risk tolerance. They had used descriptive statistics and cumulative logistic techniques in their research and have found that Blacks and Hispanics are less likely to take financial risk but more likely to take substantial financial risk than the Whites. Married women are significantly less likely to take risk than married men. Unmarried men are more likely to take substantial and high risk than married men. Income, non-financial asset levels, and self-employed generally have significant positive effects on the willingness to take financial risk. The state of being education has no significant relationships with substantial financial risk tolerance but has positive relationships with high and some financial risk tolerance. The researchers have suggested to the government agencies and financial educators that there is a need to give more importance to investor’s education on various types of investment in order to promote better choice of investment.

Xiao, Alhabeeb, Hong, and Haynes (2001) discussed risk attitude, risk-taking behaviour and the proportion of risky assets to total assets of families owning business and families not owning business. An ordered Logit risk tolerance measure was employed to know the attitude of respondents towards risk and their level of risk aversion. The analysis revealed that more than 90 per cent of the business owners were men, their age had negative impact of risk tolerance, education and income had a positive impact on risk tolerance.
The study showed that families owning business were more risk-tolerant than non-owners, the whites had higher risk tolerance than the families of other racial groups and the business owning families had higher risk assets ratio that non-owners. The study also concentrated on business type and risk behaviour of owners and found no perfect relationship between business characteristics and risk attitude of owners.

Powell and Ansic (1997) tried to find an answer to the question, “Do the differences in gender make any difference in their risk-taking behaviour at the time of financial decisions?”. The authors made a comparison between male and female in their risk-taking behaviour and found that female investors are less risk-tolerant than male investors while considering the losses rather than the gains. The study also revealed that men and women followed different strategies and implemented different styles in their financial decisions. Women are more risk averse than men, hence they adopt the strategy that helps them in avoiding losses rather than gains. But men are considered to be high risk-tolerant and always focus more on gains rather than losses. The study concluded that even though there were difference in attitude towards risk and strategies in financial decisions, no significant difference was found between male investors and female investors in their performance.

Barnwell (1987) tried to find what type of investor invests in which type of investment, for that he classified investors into active investors and passive investors. Active investors are those who had attained the wealth, already earned well and have financially settled during their life time. Active investors include small business men, entrepreneurs, professionals and self-employed consultants. Passive investors are those have attained their wealth by their parents or by inheriting, by a professional career and those who are taking risk with others money rather than their own money. Passive investors include doctors, lawyers, teachers and professionals working in other companies. He found that active investors were more willing to take risk in investing, due to their past experience in risk-taking and wealth creation. Passive investors were cautious in risk-taking and investing, this may lead to avoid more developing opportunities.
Bailard, Biehl and Kaiser (1986) used a five-way model and classified investors into two personality traits, they are level of confidence and the method of action. Level of confidence implies the level or degree of worries of the investor about certain action or an investment decision; they have ranged from confident to angry. Method of action implied how the investor takes their action or decision regarding investment in a methodical, planned and an analytical manner, they may range from careful to impetuous. They defined the model with five personalities within these two ranges which include Individualist (careful, confident, does his work by himself), Adventurer (volatile, entrepreneurial and strong-willed), celebrity (Follower of the latest investment trend), guardian (more cautious, risk-averse, aimed at preserving wealth) and straight arrow (combination of all above said four characteristics).

Thomas H. McInsish (1982) conducted a study to measure the personality characteristics and locus of control in relation to portfolio risk-using beta values. A survey was taken from 3,000 investors using a random sampling method with the help of a well framed questionnaire and beta was applied to measure the risk-taking capacity. The data collected from the investors were analysed using a multiple regression technique to find out the significant factor in terms of risk tolerance and the results reveal that gender was not significant in explaining risk tolerance level and a negative significance of age was found with personality characteristics and risk. Personality characteristics and locus of control were used to find out the relationship in their portfolio selection and concluded that there was no difference between male and females risk tolerance level.

2.3 Factors influencing mutual fund selection of investors

Avani shah and Narayan baser (2012) conducted a research from 305 mutual fund investors of Ahmadabad city with an aim to study the impact of age and occupation on investor’s preference towards funds, reputation and brand name and minimum initial investment. ANOVA test was used to analyse the responses received from the investors and found that occupation affects
investors preference for fund sponsor qualities, brand name, sponsor’s expertise and sponsor’s past performance in terms of risk and return, whereas age does not have any impact on investor’s preference.

**Binod Kumar Singh (2012)** conducted an analytical study to find out the investors attitude towards mutual fund and the impact of demographic variables on mutual fund selection. Direct interview schedule method was used to collect primary data from 250 investors of Ranji region. Chi-square analysis reveals that gender, income and level of education have significant influence on the investor’s attitude towards mutual funds. It was found that return potential and liquidity have been perceived to be most attractive by the investors followed by flexibility, transparency and affordability. It is concluded that most of the respondents have not formed any attitude towards mutual fund as an investment option due to lack of awareness about the operations and functions of mutual fund.

**Cecily and Rangarajan (2012)** have examined the investor preference towards mutual funds in Chennai through a pretested questionnaire. A study was made to know the details regarding the scope for investing in mutual fund, their preference towards SBI mutual funds, their choice of other mutual fund schemes and the source of information about mutual funds. By analysing the data, it was concluded that the increase in number of players operating in mutual fund industry and sustained growth in fund mobilisation led more investors to prefer mutual fund as better investment option.

**Geetha and Ramesh (2012)** studied the relevance of demographic factors on investment decision with 475 respondents of Nagapattinam District. A structured questionnaire was used to collect primary data and statistical tools such as ANOVA and Chi-square were applied. The analysis explains that 33.1 per cent of the investors are very much concerned about the safety of their money invested while making investment decisions. With the help of statistical tools it was found that there has been no significant relationship between demographic factors and other factors that influence the investment decision-making process. However, in the case of relationship between demographic
factors and periods of investments, it was found that a few demographic variables such as family size, annual income and annual savings have significant relationship. The rest of the variables such as gender, age, education and occupation have no significant relations with the period of investments made by the investors.

Hayat M. Awan and Shanza Arshad (2012) have tried to explore the factors which highly influence the mutual fund investment decision, the determinants of investment behaviour and the demographic factors which influence the choice of mutual fund. The data for the study were collected from 82 respondents of Pakistan and the statistical tools such as one-way ANOVA, Multiple Logistic regression, AHP techniques and Factor analysis were applied. Using factor analysis four variables were extracted, namely investor behavior, market conditions, fund-related qualities and sponsor and investor-related qualities. Chi-square results show that investor education level and occupation, income level has no effect on other four variables. The age group was found to be associated with the fund qualities and other three were found to be unrelated with the age group. It was also found that inverse relationship was found between fund qualities and investment behavior. Multiple logistic regression analysis revealed that different categories of investors have different preferences and traits. The study concluded that investors make systematic errors while making investment decision such as heuristics and overconfident.

Kotkar S.N (2012) made an attempt to find the factors responsible in influencing the buying behaviour of mutual fund from the investors of the Dhule and Nandurbar districts of Maharashtra. Simple random sampling method was used to collect data from 70 mutual fund investors. In his study he tried to prove the hypothesis that, “Customer has criteria for buying mutual funds” and found a positive expected result. He found that Net asset value and status of the company are the factors which highly influence the buying behaviour of the investors. The study also indicated that only 8 per cent of the respondents buying behaviour were influenced by their wife’s decision and other factors such as age, relationship and local languages also influence the mutual fund buying decisions.
Murugan V. G. (2012) carried out a study to analyse the impact of various demographic variables on investor’s attitude towards mutual fund and to rank the factors influencing mutual fund selection. Judgement sampling method was used to collect data from 300 investors of Chittoor region. He found that the demographic variables highly influenced the mutual fund selection and the ranking method expresses that return potentiality has been identified as the first rank followed by liquidity as the second rank in influencing the mutual fund selection. The author has concluded that only 28.3 per cent of the respondents have positive attitude towards mutual funds and one third of the respondents have not formed any attitude towards investing in mutual funds, this is due to the lack of awareness about the concepts and workings of mutual fund.

Kandavel (2011) analysed the attitude of the investors towards mutual fund selection criterion. He focused his study to measure the mutual fund growth performance and the attitude of retail investors towards the fund selection. Statistical tools such as one-way ANOVA, student t-test, analysis of co-efficient of variation, multiple regressions and percentage analysis were applied. No significant relationship was found between the attitude of the respondents and different gender, educational qualification and the amount of wealth owned. A significant relationship was found among attitude of the respondents of different age group towards importance level of fund selection. The average attitude score gives more importance to, rating by rating agencies and fund performance records.

Manish Sitlani, Geeta Sharma and Bhoomi Sitlani (2011) have researched the investment choice of occupants of financial service industry and found that there is no association between demographic variables such as age, gender, marital status, occupation and investment choice. Their study also revealed a significant association between educational qualification and investment choice of occupants of financial service industry. It also indicated that most of the investors prefer fixed return securities as their investment options and concluded that educational qualification and the experience were found to be the major determinant for investment choice of the occupants of financial service industry.
Mohit Gupta and Subhash Chander (2011) made a comparative study on retail and non-retail mutual fund investors with respect to source of information as the selection criteria for various mutual fund investments. A random sampling method was used to collect data from 450 investors and found a significant difference between retail and non-retail mutual fund investors with respect to factors of ‘advertisement and shows’ and published returns. It also revealed that ‘data and information’ and ‘advice and recommendation’ have no significant difference between retail and non-retail mutual fund investors.

Nandagopal, Sathish et.al (2011), in their article discussed the investor’s motivational factors, investment preference and problems faced by Coimbatore mutual fund investors. The study revealed that portfolio diversification, risk minimisation and greater tax benefits were influenced their investment in mutual fund. They also found that lack of financial market knowledge was one of the main problems for not investing in mutual fund.

Diana P. Budiono and Martin Martens (2010) used data from the Center for Research in Security Prices (CRSP) Survivor-Bias-Free U.S. mutual fund database. They aimed at investigating the fund characteristics which influenced the fund selection behaviour of mutual fund investors. The authors have divided the samples into two groups, the prime group is used to analyse the predictability of mutual fund performance and the second group is used to validate the selected fund characteristics from the previous analysis. The analysis revealed that using turnover ratios and ability ratios the fund manager can select better funds than considering the past performance alone. The study found that past performance generates only 7.1 per cent using investment strategies; by adjusting systematic risk and fund characteristics the alpha increases from 0.8 per cent to 1.7 per cent. It also finds that some fund characteristics significantly predict performance.

Rajarajen Vanjeko (2010) conducted a survey on March 2005-06 to understand the investment characteristics of Indian investors from selected eleven cities of India. The study mainly focused on equity shares, mutual funds, tax savings bonds, bonds and debentures. He analysed investor’s demographic
profile and preference towards the investment options available in Indian capital market. He concluded that equity shares were more preferred by most of the investors than mutual funds, debentures, bonds and tax saving bonds.

Shanmugham and Ramya (2010) examined three issues, namely internal and external, relationship between locus of control and self-assessed investment knowledge and investment behaviour and finally the behavioural impact of individual’s locus of control and investment knowledge. They found that internals have high correlation with investment knowledge and investment behaviour. It also revealed that there is a significant difference in investment behaviour amongst individuals with high and low investment knowledge. The researcher concluded that internals with high investment knowledge has successful investment behaviour.

Kavitha Ranganathan (2006) made an attempt to study the fund selection behaviour of individual investors towards mutual funds in Mumbai city. Combinations of simple random sample and judgment sampling method have been used to collect the primary data. Principle component analysis was used to find the important factors among 25 variable, that influence the fund selection behaviour of investors and the analysis reveals that performance records, brand name, expense ratio, portfolio of Investment, reputation of scheme’s portfolio manager, withdrawal/exit facility, favourable rating, innovativeness, products with tax benefits and entry and exit load are found to be important.

Rajeswari and Ramamoorthy (2005) made a research on retail investors about the factors influencing the mutual fund selection with a sample of 350 mutual fund investors from 10 urban and semi-urban cities in order to provide some meaningful inferences for Asset Management Companies in designing new and attractive products. A five-point Likert’s scaling techniques was used to get details regarding the product qualities, fund sponsor qualities and investor services. Factor analysis and principal component analysis were employed in analysing the factor which influences the mutual fund selection and found that product quality, brand name of the scheme, sponsor qualities and the
investor service are the factors influencing mutual fund selection. The study also revealed that bank deposit was most preferred by the investors and mutual fund was ranked as the fourth preferred investment types.

Mary Jane Lenard, Syed H. Akhter and Pervaiz Alam (2003) surveyed more than 262 respondents to know the reasons for investors switching between funds or staying with particular funds in a family. They have developed a variable called ‘investor risk profile’ to predict the investors risk attitude towards switching behaviour. The authors have classified the samples into two groups, namely investors who own investments only in non-employer plans and those who own investments in both non-employer plans and employer plans. To identify the factors that influence the investors to switch funds within a fund family they have used the logic functions of an Excel spreadsheet and a statistical model into a hybrid system. The analysis revealed that investor’s current asset allocation, investment losses, investment mix, fund and portfolio diversification, initial financial performance of the fund, fund charges, capital base of the fund, and the investor’s attitude towards risk are the variables influencing the investment decision to switch funds.

A Research article by King J. Stephen (2002) focused on the emergence of the financial products, explains the features of hedge funds, exchange traded funds, managed accounts and portfolio investment programmes and compares the pros and cons with mutual fund. His study revealed that introduction of new products will bring major changes in the financial system and the investors can enjoy lower cost, tax reduction and reduced expenses ratio.

Shapira and Venezia (2001) conducted a survey with the clients of major brokerage firms in Israel. They aimed at analysing the comparison between the individual clients investment behaviour with the clients who depend on the brokerage professionals for their investment. The results showed that the clients whose accounts are managed by brokerage firms earned higher returns.
than the independent investors. The study also indicated that more diversification of investments was found in professionally managed investments and the disposition effect was found higher in the case of individual investors.

**SEBI- NCAER (2000)** surveyed more than 3, 00,000 urban and rural households to know the individuals economic, demographic profiles, their portfolio size and their investment preference. Some of the relevant findings of the study are: households preference for instruments match their risk perception; Bank Deposit has an appeal across all income class; 43 per cent of the non-investor households equivalent to around 60 million households (estimated) apparently lack awareness about stock markets; and compared with low income groups, the higher income groups have higher share of investments in mutual funds signifying that mutual funds have still not become truly the investment vehicle for small investors. Nevertheless, the study predicts that in the next two years the investment of households in mutual fund is likely to increase.

**Franklin Fant (1999)** investigated the aggregate investment behaviour of mutual fund shareholders. He aimed at analysing the relationship between the demand for equity securities with stock returns using vector auto-regressions and tests of linear feedback method. The study found that the flow-return relationship exists solely between returns and exchanges-in and-out, mutual fund investors use new sales/redemptions differently from exchanges, which results in the components reflecting different information. Investors appear to use exchanges to time the market and/or engage in tactical asset allocation. This is consistent with exchanges reflecting short-term, conditional risk premia, and with the perceived gains to trading being too small and/or too fleeting to be captured by new sales/redemptions. New sales/redemptions, on the other hand, would appear to reflect long-term, unconditional risk premia. The study concluded that, there is no evidence that investor’s momentum trade on the current month’s returns cannot be rejected out-of-hand for long-term period.

**Jaimie Sung and Sherman Hanna (1996)** have investigated the impact of financial variable and respondents characteristics on risk tolerance. They have
used the dataset of 1992 Survey of Consumer Finance to proceed with their predetermined objectives. 2659 respondents who were between the age group of 16 and 70 constitute the sample. The collected responses were analysed using descriptive statistics, Chi-square and logit model to know the effects of variables on risk tolerance. The analysis explained that, the independent variables except age, years to retirement, household size, occupation and home ownership had significant effect on risk tolerance. Respondents with more years for retirement had higher risk tolerance than respondents with very close to retirement and Hispanic whites had higher predicted risk tolerance than other racial/ethnic groups. The Logistic regression analysis showed that female-headed households were less likely to be risk-tolerant than households with a male head.

Noel capon, Gavan j. Fitzsimons et al, (1996) focused their research on the following four categories, namely information sources used for mutual fund purchases; selection criteria for mutual funds; mutual fund purchase behaviour, and investors demographic data. The required data were collected from 3,386 investors of the continental United States through telephone survey. The results showed that when investors are grouped by similarity of investment decision process, a single small group appears to be highly knowledgeable about their investments. However, most investors appear to be inexperienced, having little knowledge of the investment strategies or financial details of their investments. The study reported that investors consider much nonperformance-related variables and they may not be utility maximizes if the analysis is restricted to return and risk.

Grinblatt Mark, Titman Sheridan and Wermers Russ (1995) made a research study on “Momentum Investment Strategies, Portfolio performance and Herding: A study on mutual fund behaviour”. They analysed the influence of past returns and the herd behaviour in the investment decision of the mutual fund investors and found a high correlation between the tendency of the individual funds to buy past winners as well as herd with the performance over the period of the study. 155 mutual funds were analysed with ten year period data and the
results indicated that 77 per cent of mutual funds were momentum investors buying stock of past winners but did not sell those of past losers and the funds invested on momentum realised significantly better than others.

**Stuart H. Blum (1976)** compared men and women’s investment preference towards risk-taking behaviour. A survey was conducted at New York City with a sample of 181 individuals consisting 91 female and 90 males. Random sampling method was used to collect the required data for the study from professionals and business people, clerical workers, house -wives and retired individuals. He collected the data by giving a situation and asked the respondents to assume that they had received a sum of amount that equals to one year’s total income and have to choose any one from the given four investment type. Ranking technique was used by the judges to rank the four given investments in terms of risk and concluded that the difference between men and women was not statistically significant.

### 2.4 Research gap

The literature reviews present an overview of earlier studies carried out in the area of financial literacy, personality, attitude towards risk and factors influencing investor’s preference towards investments. In general, investment decisions depend on many factors namely the demographic profile of investors, their awareness level, their attitude towards risk and return, their personality traits and qualities of investment. The studies reviewed concentrated either on financial literacy of investors and their investment choice or their personality and investment choice or attitude towards risk and return with select investment channels or fund qualities with investment choice. The combination of all the three factors, namely level of financial literacy of the investors, their personality traits influencing their attitude towards risk and return and specific fund qualities which influence the investment decision of retail investors have not been researched extensively especially in Coimbatore city. Hence, the present study on “DETERMINANTS OF MUTUAL FUND SELECTION BY RETAIL INVESTORS” was made.