Chapter 2

Review of literature
INTRODUCTION

An important step in research is to form a conceptual framework on the subject under investigation. Such a conceptual review helps the researcher to understand the problem better and serves as a background material, which will help to bring out clearly the real contribution of the present study. Review of related literature enables the researcher to get acquainted with the knowledge in the field of study.

Many scholars have made studies on investors’ behavior, and many studies are going on. From the available studies from secondary sources the literature is reviewed here to have better clarity of investors’ behavior and the study. Thereafter the empirical studies done on the similar areas of research in international context as well as in Indian context were highlighted.

Evolution of Theories on Investors’ Behavior

With the growing importance of the subject under study, some literature, covering different aspects of investors’ preferences have been produced by researchers, economists, and behavioral scientists. Empirical evidences which seem to strongly contradict the assumption that price cannot be determined, but is obtained randomly have stimulated the recent development of what has come to be known as "behavior finance". Assumptions behind the theories on the behavior of investors are often based on psychological research or common sense. However, clearly, the study of the behavior or the development of financial markets could benefit of a more complete image, if it would be known how investors actually behave and how they react to the same
information depending on the differences between them (behavior conduct). Economic theory of Choice works under the premises that patterns of behavior in societies reflect the choices made by individuals; as a result, patterns of behavior within society will develop the results from those choices. 1954 Franco Modigliani’s (1954) Life-Cycle hypothesis, an early pioneering work, assumes that people save in order to smooth their consumption over their lifetime. One important objective, they have is to generate an adequate retirement income. Hence people tend to save while working so as to build up wealth before retirement, and then they spend their accumulated savings in their post retirement years. The hypothesis assumes that individuals are well-informed and forward-looking decision makers.

Sharpe (1964) proposed a model called capital asset pricing model (CAPM), which was the first general equilibrium model of asset prices that incorporated risk. CAPM predicts that all individuals hold the same portfolio of tradable securities but in varying proportions and the prices of the assets will be linearly related to their correlations with the market portfolio. Unfortunately these predictions have been strikingly rejected by empirical studies of individual behavior and asset prices, reason being much individual’s portfolio differs by age and wealth and the correlation of a security price with market portfolio explains only a small part. The focus of CAPM is mainly towards the institutional investors. Another shortcoming of CAPM as far as portfolio management is concerned was that it only looked one period ahead.

Samuelson and Merton (1969) extended the single period model into multiple period models. In related papers, Samuelson (1969) and Merton (1969) modeled a decision
maker who can invest in two assets: a risk-free bond which pays a constant rate of return, and a risky stock with a constant equity risk premium. The individual was assumed to face no transactions costs, to be able to borrow and lend at the same rate, to have no portfolio restrictions, and to receive no labor income. That research concluded that investment decisions are independent of the time to the end of life. Under very special circumstances: if investment opportunities are constant and utility has a certain functional form, investors behave exactly as though the current period is the last one. This holds because for CRRA preferences, the two effects described in the previous paragraph exactly cancel each other out. The two-fund separation theorem of Markowitz holds in this model: investors only need the risk free asset and one mutual fund (the market portfolio) and they will be able to achieve the optimal portfolio regardless of their risk aversion.

Empirically, a large number of studies in recent years have investigated the factors, which influence the composition of investment behavior. Some of them are summarized in this section. The studies included here in this section were tried to explore the differences in household portfolio in general and investments in risky assets in particular. To a certain extent, there could be cultural differences across countries and regions and as per the purpose of the research the empirical studies summarized here were classified under two segments, one way the study of household portfolios in international context and second was the study conducted in India. There were number of studies done on the household portfolios and investment behavior in many developed countries, only few past and recent studies were taken in the literature review.
STUDIES RELATED TO INVESTOR BEHAVIOR

Harry Markowitz (1952), in 1952, Harry Markowitz introduced the modern investment age with his landmark work on building optimal portfolios through diversification and mean-variance analysis. He explained his theory in a Journal of Finance article titled “Portfolio Selection,” published in 1952. His theory emphasized making investment decisions based on risk, evaluating investment performance at the portfolio level, eliminating specific stock risk through diversification, and holding assets that are not highly correlated. Markowitz constructed a theoretical “efficient frontier” where a set of optimal portfolios offer the best level of return for a given amount of risk, or the lowest level of risk for an expected return. The investor should choose a portfolio based on the amount of risk he is willing to take, and then identify this diversified portfolio on the curve. He explained the fundamental concept of Modern Portfolio Theory (MPT). That the assets in an investment portfolio cannot be selected individually on their own merits. Rather, it is important to consider how each asset changes in price relative to how every other asset in the portfolio changes in price; Investing is a tradeoff between risk and return.

James Banks and Sarah Tanner (1980) surveyed UK households and concluded their findings. As the late 1980s saw a dramatic fall in personal saving rates in Britain and the United States, which attracted the attention of academics and policy-makers alike. The period was also marked by a number of important structural changes, any or all of which could have had an impact of personal saving behavior. Included among these were systematic changes in the demographic structure of the population, female labor supply, productivity growth, financial liberalization and the degree of inequality in household
incomes. These changes, coupled with the decline in personal saving, led many commentators to pronounce that the ‘baby-boom’ generation (i.e. those currently middle-aged) were not saving enough for their retirement which is a concern heightened by growing fears over the future of the state pension system, given current social and political attitudes.

Jonas Agell and Per-Anders Edin (1990) studied the portfolio allocation among 8 asset categories using 1979 Swedish yearly income distribution survey (HINK), which consisted of 1943 wage earning households. They found that wealth, occupation, marginal income taxes had strong positive effects on ownership of different asset categories in the household portfolio choice. They also found the significant positive impact of age, education, occupation, retirement status of the head of the household in the proportion of various assets in their portfolio.

L.C. Gupta (1991) analyzed 5822 profiles of Indian households in mid 1990 and found one-fourth of the Indian shareowners had shares of only 1 or 2 companies, and slightly above half of them had no more than 5 companies in their share portfolio. Thus, the extent of diversification of share investment was grossly inadequate in the case of the majority of Indian shareowners, exposing them to considerable ‘unsystematic’ risk. He found that holders of undiversified or inadequately diversified portfolios had a higher proportion of those who reported unsatisfactory experience compared to holders of more diversified portfolios.
L.C. Gupta (1993) analyzed 1755 Indian households’ investment preferences during March-April 1992 and found that the extent of diversification in the case of share investment does not show any significant change between 1990 and 1992.

Peter S. Yoo (1994) using 1962 Survey of Financial characteristics of Consumers, and 1983 & 1986 Survey of Consumer Finances, studied the portfolio allocation among cash, bond, and equity. He found that the relationship between age and portfolio allocation is not linear: young and retired individuals demand less risky assets, bonds than middle-aged individuals.

Luigi Guiso, Tullio Jappelli, and Daniele Terlizzese (1996) surveyed 4079 Italian households from January 1988 to December 1988 to study the household portfolio heterogeneity. They found that the investors when confronted with uninsurable income risk and borrowing constraints reduce their exposure to risky assets and keep their wealth in a safer and more liquid form.

Bernheim et al (1996) analyzed the effect of employer sponsored retirement education on household saving behavior using a cross sectional study of 2055 U.S. respondents aged between 30 and 48 which was surveyed during November 1994. They showed that employer-based retirement education in the work-place strongly influenced household financial behavior in the form of increased total retirement wealth, retirement saving and participation in 401 (k) plan.
Bayer et al (1996) analyzed the impact of employer sponsored retirement seminars on retirement saving, using survey data from 300 U.S. firms (which sponsored pension plans to their employees) for the period 1993 and 1994. They found that employer sponsored retirement seminars are significantly associated with higher rates of 401(k) plan participation and contribution rate.

Zvi Bodie and Dwight B. Crane (1997) using a cross sectional study of 916 Teachers Insurance and Annuity Association - College Retirement Equities Fund (TIAA-CREF) members (USA), surveyed during February 1996 analyzed the portfolio allocation between retirement and non-retirement funds. They found that equity investment in retirement account had positive impact on equity investment in non-retirement account providing evidence that individuals do not diversify their holdings across retirement and non-retirement accounts and concluded that, given enough education, information, and experience, people might tend to manage their self-directed investment accounts in an appropriate manner.

Stefan Hochguertel at al (1997) studied the portfolio allocation among 4 asset categories using 3077 Netherlands households surveyed in 1988. They found that income, education and tax had a positive impact on the proportion of financial wealth held in risky assets while age had a hump shaped relationship.

Alok Kurnar and Charles M. C. Lee (1997) has conducted a research on “Retail Investor Sentiment and Return Co- movements” in India by using a database of more than 1.85 million retail investor transactions in capital market over 1991—1996. Their main
observations were that the trades are systematically correlated—that is, individuals buy (or sell) stocks in concert. Moreover, consistent with noise trader models, they found out that systematic retail trading explains return co-movements for stocks with high retail concentration (i.e., small-cap, value, lower institutional ownership, and lower priced stocks), especially if these stocks are also costly to arbitrage. Macroeconomic news and analyst earnings forecast revisions do not explain these results. Collectively, their findings support a role for investor sentiment in the formation of returns.

Shanmugham et al (1998) using 201 Coimbatore investors studied the profiles of the investors and the factors influencing their decision process. They found that the equity portfolio diversification was moderate. Educational levels of investors had its impact on the use of technical analysis and the occupation had its impact on the use of fundamental analysis.

Anne-Marie Palsson (1998) studied the impact of interest rate on saving allocation using annual Swedish data covering the period 1964-1995. She found that the financial saving and real saving allocation was quite sensitive to the risk-free rate of return i.e. the financial assets increased and real assets decreased when the risk free rate of return increased and vice-versa.

Loayza and Shankar (1998) on Private savings in India, the researchers did a cross country study and they found that the saving rate in China was on average, 70% higher than in India, saving was approximately 50% higher and growth was 100% greater. East Asia achieved a growth rate that was twice as large as India’s with an investment rate
that was 34% higher, and a saving rate that was about 45% higher. On the other hand, regarding the relationship between saving, investment and growth, showed India’s long-run averages are quite similar to those of OECD countries. From the direction of saving investment gap, that India was found to rely on foreign saving more than the East Asian countries but notably less than other low-income countries.

**Rob Alessie et al (1999)** using 6 waves of Center Savings Survey(CSS) - a panel consisting of 2500 Netherlands households - for the period 1993-1998 studied the household portfolio heterogeneity. They found that non-capital income, total net worth, interest on financial matters, employment status had positive impact on the ownership of different asset classes, while the household size had a negative impact on it. They also showed that age followed a hump shaped profile. The answer to the statement, “I am very interested in financial matters (insurance, investments etc.)” is used to grade (in an eight point scale) the respondents’ interest on financial matters.

**Rajarajan (1999)** using 405 Chennai investors studied the size of financial investments and the percentage of financial assets invested in risky category. He showed that the individual investors’ life cycle stage is an important determinant in the size of financial assets investments and the percentage of financial assets investment in the risky category.

**Luigi Guiso and Tullio Jappelli (1999)** using repeated cross sectional and panel data consisting of 8000 Italian households for the period 1989-1995, studied the heterogeneity of portfolio among the households. They showed that wealth, college
education and index of financial information had significant positive effect on the
ownership and share of risky assets, while age showed a hump shaped profile.

James M. Poterba and Andrew A. Samwick (1999) analyzed the portfolio allocation
Consumer Finance (15451 U.S. household) and cross sectional data of 1995 SCF (4299
household). They found that income, wealth, education and marginal tax rate had a
positive effect on households’ asset allocation decision.

and Expenditure Survey (EVS) of 30000 households found that most of the households’
wealth was held in the form of housing and pensions. They showed that the participation
in risky assets was influenced positively by wealth and education. Age was found to have
a hump shaped profile on the ownership of risky assets. This means the ownership of
risky assets increases initially as the age of the households’ increases up to certain level
and then it declines later.

Impact of U.S. stock market on Indian stock markets – by Bala Arshanapalli and
Mukund S. Kulkarni (1999). They examined the nature and extent of linkage between the
U.S. and the Indian stock markets. The study used the theory of co-integration to study
interdependence between the BSE, NYSE and NASDAQ. The sample data consisted of
daily closing prices for the three indices from January 1991 to December 1998 with 2338
observations. The results were in support of the intuitive hypothesis that the Indian stock
market was not interrelated to the US stock markets for the entire sample period. It
should be noted that stock markets of many countries became increasingly
interdependent with the US stock markets during the same time period. India was late in effecting the liberalization policy and when it implanted these policies it did so in a careful and slow manner. However, as the effect of economic liberalizations started to take place, the BSE became more integrated with the NASDAQ and the NYSE, particularly after 1998. It must be noted that though BSE stock market was integrated with US stock markets, it did not influence the NASDAQ and NYSE markets.

**Charles Schwab (2000)** revealed very practical, authoritative and easy to-follow tips and suggestions for good investment in the stock market. According to him growth is the heart of successful investment. He suggested that before investing, one should be clear about the goal. He opined that the biggest risk is not in investing but in doing nothing and watching inflation eating away the savings. A very useful suggestion of the author is not to draw upon the income from investment but to reinvest it. A low risk approach will yield low return. So the author urged the investor to be aggressive, subject to his personal limits.

**Hodge (2000)** analyzed investors’ perceptions of earnings quality, auditor independence, and the usefulness of audited financial information. He concluded that lower perceptions of earnings quality are associated with greater reliance on a firm's audited financial statements and fundamental analysis of those statements when making investment decisions.
Mark Grinblatt, Matti Keloharju (2000) using data from Finland, analyzed the extent to which past returns determines the propensity to buy and sell. This study also analyzed whether these differences in past-return-based behavior and differences in investor sophistication drive the performance of various investor types. They found that foreign investors tend to be momentum investors, buying past winning stocks and selling past losers. Domestic investors, particularly households, tend to be contrarians. The distinctions in behavior are consistent across a variety of past-return intervals. The portfolios of foreign investors seemed to outperform the portfolios of households, even after controlling for behavior differences.

Mullainathan and Thaler (2000) stated that financial markets have greater arbitrage opportunities than other markets, so behavioral factors might be thought to be less important here, but it was concluded that even here the limits of arbitrage create anomalies that the psychology of decision making helps explain. Since saving for retirement required both complex calculations and willpower, behavioral factors are essential elements of any complete descriptive theory.

Raghavan R.S. (2000) commented on the risk perceptions and the risk measure parameters. He opined that risk measures are related to the return measurements. While risks can only be contained and cannot be eliminated altogether, there is no doubt that some risks have to be taken to get adequate returns. Returns can be increased or made quicker by taking more financial and operating risks. But the environmental risks typically do not increase returns but serve as constraints on return and risk decisions. He concluded that the process of retaining the levels of risks within the desirable levels must be practiced in the daily operations.
Report by the Investigation Enforcement and Surveillance Department of the SEBI (2000) stated that in spite of some instances of high volatility, the Indian markets have remained stable and safe. It was observed that the Indian securities market has been witnessing a downtrend and instances of volatility. But the downtrend and the fall in the indices of the major capital markets were around the world. According to the Report, the downturn in the sensex could be attributed to (i) Rise in the oil prices in the global markets leading to increase in oil pool deficit (2) Downward pressure on the Indian Rupee, (3) Fears of an economic slowdown as indicated by the key economy indicators, (4) Revival of competitive economies such as Malaysia and possibility of shifting some foreign investments to these countries etc.

Yoon Geum Lee Jang et al (2000) using a cross sectional study of 2729 South Korean families surveyed in 1994 investigated the factors influencing the percentage share of financial assets in total wealth of the families. They found that wealth was negatively associated and family income positively associated with the share of financial assets in total assets.

The Securities and Exchange Board of India with National Council of Applied Economic Research, SEBI-NCAER (2000) study found that only 7% of all households invested in Shares & Debentures and 9% in Mutual Fund units. The majority of the Equity investor households hold an undiversified portfolio of relatively small value of less than Rs. 25000. It was seen that one set of households, in spite of their lower income & lower penetration level of consumer durables, invest in the securities market, while another set
of household with higher income and higher penetration level of consumer durables do not.

James Bank and Sarah Smith (2000) using cross sectional data of 4800 respondents (collected monthly for the period from Jan 1997 to June 1998) studied the heterogeneity of household portfolio in UK. They found that the ownership of risky assets showed positive relationship with wealth and education, while age showed a hump shaped profile. They also found that the differential tax treatment across savings products resulted in tax-preferred savings.

Are the structural changes in MF investing, driving the US stock markets to its current levels – by Michael Mosebach and Mohammad Najand (Old Dominion University) (2000). They examined the long run equilibrium relation between the net flow of funds into equity MF and the S&P 500 index. Applying the Engel and Granger correction methodology followed by a state space procedure, we found that the levels of the stock market are influenced by the net flow of funds into equity MFs. Their findings indicated that the US equity market appears to be rationally adjusting to a structural change in the behavior of the US investing public.

Carol Bertuat and Martha Starr- McCluer (2000) by using Federal Reserve Board’s Flow of Funds Account (FFA) for the period 1983-1998, and 1989, 1992, 1995, 1998 SCF consisting of 4500 households, studied why the household portfolio is heterogeneous. They found that the portfolio of the typical household remains fairly simple and safe consisting of a checking account, savings account, and tax-deferred retirement account. They showed that wealth and college education had a positive significant effect on the
ownership and share of risky assets, while employment status had a negative effect on them. Age showed a mixed effect (negative effect on the ownership and a positive impact on the share of risky asset in total wealth). Income and defined benefit pension plan had a positive impact only on the ownership of risky assets.

Cathy Pareto (2001), Dalbar a financial services research firm conducted a survey and found what average investors failed to achieve market index returns.

Hirshleifer (2001) categorized different types of cognitive errors that investors make i.e. self-deception, occur because people tend to think that they are better than they really are; heuristic simplification, which occurs because individuals have limited attention, memory and processing capabilities; disposition effect, individuals are prone to sell their winners too quickly and hold on to their losers too long.

Kenneth A. Froot, Paul G. J. O’Connell, Mark S. Seasholes (2001) explored daily international portfolio flows into and out of 44 countries from 1994 through 1998. It was found that there were several facts concerning the behavior of flows and their relationship with equity returns. First, it was the regional flow factors that have increased in importance through time. Second, the flows appeared to be stationary, but far more persistent than returns. Third, flows were strongly influenced by past returns, a finding consistent with positive feedback trading by international investors. Fourth, inflows have positive forecasting power for future equity returns, and this power was statistically significant in emerging markets. Fifth, the sensitivity of local stock prices to foreign inflows was positive and large. Sixth, prices seemed consistent with flow persistence, in
those transitory inflows impact future returns negatively.

**Michael Bowe, Daniela Domuta (2001)** identified the relative importance of local and foreign investor expectations in explaining the short-run behavior of equity returns in Asian markets during a period encompassing the 1997 financial crisis. The analysis utilized the insight that the pricing behavior of closed-end country funds in relation to their constituent underlying assets can be used as a mechanism for distinguishing between the relative impact of local and foreign investor expectations. To ensure robust results, the analysis incorporated several different empirical specifications and uses alternative measures of underlying asset prices in the Asia markets. The results suggested that both local and foreign investor expectations were important as a channel determining the pricing behavior of Asian assets trading in Asian and US equity markets. This finding appeared independent of the degree to which a specific Asian equity market was open to foreign investment. Moreover, the measured impact of country-specific foreign investor information was enhanced during periods of financial crisis. The findings lend credibility to the view that the trading behavior of foreign investors was significant in sustaining the dimension and duration of the Asian crisis.

**Zur Shapira and Itzhak Venezia (2001)** analyzed the investment patterns of a large number of clients of a major Israeli brokerage house during 1994. They compared the behavior of clients making independent investment decisions to that of investors whose accounts were managed by brokerage professionals. The main objective was to investigate whether the disposition effect (i.e., the tendency to sell winners quicker than losers), demonstrated in the US only for individual investors, also holds for professional investors. This analysis was important, as accepted financial theory predicted that prices
are determined mainly by decisions made by professionals. They showed that both professional and independent investors exhibit the disposition effect, although the effect was stronger for independent investors. The second objective of the study is the comparison of trade frequency, volume and profitability between independent and professionally managed accounts. These comparisons not only provide insights of their own, but also helped to put the differences in the disposition effect in a wider perspective. The study demonstrated that professionally managed accounts were more diversified and that round trips were both less correlated with the market and slightly more profitable than those of independent accounts.

**Kent Daniel, David Hirshleifer, Siew Hong Teoh (2002)** reviewed extensive evidence about how psychological biases affect investor behavior and prices. Systematic mispricing probably caused substantial resource misallocation. We argued that limited attention and overconfidence cause investor credulity about the strategic incentives of informed market participants. However, individuals as political participants remained subject to the biases and self-interest they exhibit in private settings. Indeed, correcting contemporary market pricing errors was probably not the 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.

**Krishnan and Booker (2002)** analyzed the factors influencing the decisions of investors who use analysts’ recommendations to arrive at a short-term decision to hold or sell a
stock. The results indicated that a strong form of the analyst summary recommendation report, i.e., one with additional information supporting the analysts’ position further, reduces the disposition error for gains and also reduces the disposition error for losses.

**McGoun and Frankfurter (2002)** addressed the conflict between modern finance (the de facto dominant paradigm of financial economics) and what is usually called “Behavioral Finance” (BF), also occasionally called by its opponents “the anomalies literature” as a way of marginalizing it. Even the supposed proponents of BF, however, are marginalizing themselves by clinging to the underlying tenets, forms, and methods of the dominant paradigm. They have allowed it to set the terms of the debate and made it the benchmark against which all finance was not only judged, but also labeled “finance”. Finance research itself was subject to the same “mistakes” that BF attributes to practitioners, and it was these same “mistakes”, perhaps more than the fierce attacks by the supporters of the ruling doctrine, that were preventing BF from emerging as a new paradigm. In effect, the failure of BF is proof of its veracity and legitimacy.

**Jack J. W. Yang (2002)** examined the information spill over between stock returns and the trading behavior of Taiwan’s institutional investors. Institutional investors in Taiwan were classified into three categories: foreign institutional investors (a combination of QFII, qualified foreign institutional investors, and foreign mutual funds), domestic mutual funds, and security dealers. Using a vector autoregressive model for July 4, 1996–May 4, 1999, the findings indicated that none of them influence the stock returns. However, foreign institutional investors adopted a “contrarian” trading strategy, which served as a
market-stabilizing mechanism. It seemed that the open-door and institutionalization policies should be maintained and even broadened by local authorities

**Kavim V. Bhatnagar (2002)** in his Fellow Program in Management from Nirma Institute of Management, Ahmadabad studied the pensioner’s behavior towards the diversification. In his work “Do Indian Pensioners hold Diversified Portfolio?” he has found out that the Asset allocation, (the decision of how much of a portfolio to allocate to different types of securities), is one of the fundamental issues in financial economics. The paper examined the portfolios created out of lump-sum pensioner’s benefits received by 495 government pensioners who retired between 1967 and 2002. The paper had used the available data for the household investment in financial assets between 1970 and 2002, and complied that with the investment in financial assets of the pensioners. He was further concluded that pensioners in the sample remain under-diversified. Over the years, the average number of assets in pensioner portfolio has increased resulting in a decrease in the average portfolio variance. This may be ascribed to facts that reforms in Indian market opened floodgates for investment avenues and that these improvements resulted primarily from changes in the correlation structure of the Indian household investment market. Least diversified portfolios were found amongst pensioners who had lesser funds at their disposal and retirees of lower class (junior) categories. An analysis of a cross sectional variations in diversification across demographic groups also suggest that younger, active and recent retirees are over-focused thereby holding under-diversified portfolios, not by chance but by choice. By and large, results indicated that pensioners face an intimidating task of constructing and maintaining a well-diversified portfolio despite realizing the benefits of it.
Indian Investor Economic Foundation (IIEF-2002) survey, surveyed 1832 Indian respondents in July 2002, to assess the knowledge, attitudes and behaviors of individuals towards retirement, saving, risk, investments etc. It concluded that it might be appropriate to assume that a quantum improvement in financial knowledge among individual investors’ would result in continued voluntary participation in the new pension system.

Annette Vissing-Jorgensen (2002) studied the household portfolio heterogeneity using PSID panel data of 1984, 1989 and 1994 consisting of around 3500 U.S. households. She found that non-financial income of the household had a positive impact on the ownership and the share of risky assets and education had a positive impact only on ownership of risky assets in their portfolio.

Ameriks, Caplin, and Leahy (2002) using a cross sectional study of 500 U.S. participants of Survey of Financial Attitudes and Behavior (FAB) 2001 surveyed in January 2001, analyzed why do similar households end up with very different levels of wealth. They showed that households with a higher propensity to plan are associated with increased wealth accumulation. They also found that the annihilation rates among the retirees are low and opined that one of the major reasons is the lack of consumer understanding of the financial assets and products. They also found a negative impact of defined benefit pension plan on gross financial assets.

On the dynamic relation between stock prices and exchange rates – by Richard A. Ajayi and Mbodja Mougou (Wayne State University)(2002). In this study they implied recent
advances in the time-series analysis to examine the inter-temporal relation between stock indices and exchange rates for a sample of eight advanced economies. An error correction model (ECM) of two variables employed to simultaneously estimate short-run and long-run dynamics of variables. The ECM result revealed significant short-run and long-run relationship between two financial markets. Specifically, the results showed that increase in aggregate stock prices has negative short-run effect on domestic currency value. In the long-run, however, stock prices have positive effect on domestic currency value. On the other hand currency depreciation had negative short-run and long-run effects on stock market.

Akiko Kamesaka, John R. Nofsinger, Hidetaka Kawakita (2003) used weekly aggregate investment flow from Japan, studied the investment patterns and performance of foreign investors, individual investors, and five types of institutional investors. Securities firms, banks, and foreign investors performed well over the sample period. Individual investors performed poorly. They also found that foreign investor trading is associated with positive feedback market timing and that this trading earns high returns. Alternatively, individual investors used positive feedback trading in their market timing but earn low returns. Consequently, they documented evidence consistent with information-based models (foreign investors) and behavioral-based models (individual investors). It was a particularly new and interesting finding that evidence of both information-based trading and behavioral-based trading occurred in the same market.

Nicholas Barberis, Richard Thaler (2003) argued that some financial phenomena can possible be understood using models in which some agents are not fully rational. The
field had two building blocks: limits to arbitrage, which argued that it can be difficult for rational traders to undo the dislocations caused by less rational traders; and psychology, which catalogues the kinds of deviations from full rationality they might expect to see. They discussed these two topics, and then present a number of behavioral finance applications: to the aggregate stock market, to the cross-section of average returns, to individual trading behavior, and to corporate finance. They closed by assessing progress in the field and speculating about its future course.

**Marianne A., lilgert et al (2003)** using 1004 respondents of the monthly Survey of Consumers conducted in November and December 2001 analyzed the impact of financial knowledge on financial behavior. They found that financial knowledge test scores had a significant positive relationship to cash flow management, saving management and investment management.

**Annika Sunden (2003)** using National Social Insurance Board (NSIB) survey of 1000 Swedish individuals of 2003 analyzed the impact of information and education initiative of pension reform on households. She showed that the information and education initiative by the Swedish Government had some success in increasing knowledge about the reformed system. At the same time, participants also reported that they needed more information and hence felt that it is equally important to design pension plans to make it easy for the participants to understand and use them.

**Philip Bromiley, Sharon James-Wade (2003)** said that both financial economics and neoclassical economic approaches to strategy attempt to understand the operation of
competitive markets assuming market equilibrium and optimising agents. These assumptions imply no strategies can exist that consistently outperform the market. However, behavioral finance results clearly demonstrated this implication is wrong. For strategic management, a theory that implied no rules exist to outperform the market cannot explain why some firms consistently perform better than others. This paper argued that a behavioral perspective of strategic management offered a coherent framework and set of assumptions that better inform the problems strategic management scholars attack.

**Rajarajan (2003)** has done extensive research on the characteristics of investors. He classified individual investors on their investment size and demographic characteristics. He also used cluster analysis to segment individual investors based on their lifestyles. He brought out details about the association between lifestyles of individual investors and their demographic and investment related characteristics to understand them and their financial product needs better. Risk taking capacity has been a subject of interest to many of his researches.

**Kadiyala and Rau (2004)** investigated investor reaction to corporate event announcements. They concluded that investors appear to under-react to prior information as well as to information conveyed by the event, leading to different patterns: return continuations and return reveals, both documented in long-horizon return. They found no support for the overreaction hypothesis.

Michael Bowe, Daniela Domuta (2004) used Jakarta Stock Exchange data to analyse the investment patterns of foreign and domestic investors for evidence of herding and positive feedback trading before, during, and after the 1997 Asian crisis. Results indicated that both investor classes herded, foreigners herded more than locals, and foreign herding increased following the onset of the crisis. Domestic herding did not increase during the crisis, and diminished subsequently. Domestic herding appeared positively related to firm size, but there is very little evidence of size-conditioned foreign herding. There was no evidence of positive feedback trading in either class of investor, either at the market or the individual stock level. Overall, the evidence suggested that investor behavior was not inherently destabilizing and positive feedback trading did not exacerbate stock market movements in Indonesia at the time of the 1997 Asian crisis.

Sharma B.C. (2004) found out the retail investors in Jammu as young, well informed, and regularly trading. He also stated that the retail investors hold low belief towards stock market institutions’ regulatory capabilities and towards the safety of small investors.

Vicente Meneu, Angel Pardo (2004) investigated the existence of a pre-holiday effect in the most important individual stocks of the Spanish Stock Exchange that were also traded in both the New York Stock Exchange and the Frankfurt Stock Exchange. Their results show high abnormal returns on the trading day prior to holidays that were not related to
any calendar anomaly. A thorough study of diverse liquidity-related measures suggested a new explanation for the pre-holiday effect based on the reluctance of small investors to buy on pre-holidays. The results of this paper were important for the practitioners since they showed that institutional investors could have economically exploited this anomaly.

Chan, Frankel, and Kothari (2004) assessed the predictive ability of behavioral finance theories using out-of-sample data is important. Otherwise, the potentially boundless set of psychological biases underlying the behavioral explanations for security price behavior can lead to over fitting of theories to data. They tested pricing effects attributed to two psychological biases, representativeness and conservatism, which underlie many behavioral finance theories. Using trends and consistency of accounting performance, they look for the pricing consequences of representativeness and conservatism. They found mixed evidence consistent with behavioral finance. Specifically, the theories based on representativeness were not supported, but they find some evidence of the pricing implications of conservatism.

Vaidyanathan (2004) analyzed the secondary data regarding household savings in India during the period 1961-2001. He found that in India the self-employed, not having any old aged income-providing scheme, fall back on gold resulting in large savings in the form of gold. He calls for the life insurance companies to come up with innovative products to capture this huge untapped market. In the study, financial knowledge was represented by a score, which was used to study the relationship between financial knowledge and financial behavior. Planning was represented by a score, which was used to study the relationship between retirement wealth accumulation and saving.
The ‘ET Retail Equity Investor Survey (2004)’ designed by ET intelligence group (ETIG) along with AC Neilson ORG-MARG interviewed 513 retail investors in Mumbai, Delhi, Kolkata, Chennai, and Ahmadabad who had invested a minimum of Rs.10,000 into equities in secondary markets. The study found that the investors are smart in terms of setting book-profit or cut-loss limits and adhering to it, averaging their investments. However it also found that only 2 percent of the investors hold the securities for more than 1 year and for half of the respondents it was only 75 days.

Mukhopadhyay (2004) studied the profile of 200 Kolkata investors. Using a questionnaire based survey; he found that aged people prefer less risky investments while the youngsters are aggressive in risky investments. One of the questions asked the investors risk perception about capital market investments and found that people having lower qualification outnumbered the people having higher qualification in answering that tile stock market investment is risky.

Annika (2004) Using samples covering Ahmedabad, Bangalore, Chennai, Delhi, Hyderabad, Kolkata and Mumbai cities, found that investors in western region of the country prefer to take risks in investments as against investors in the south, but in terms of diversity of investment portfolio surprisingly it was the South Indian investors who had the most diversified investment portfolio.

Price pressure and the role of substitutional investors in closed-end funds –by Richard W.Sias (Washington State University) (2004). A trader-intensified transactions database was employed to investigate: (1) the relation between order-flow imbalance closed-end
funds share prices and discounts (2) the role of institutional investors in closed-end funds. Empirical results were consistent with the hypothesis that buyers (sellers) of closed-end funds face upward (downward) sloping supply (demand) curves. The results also demonstrated that ownership statistics fail to accurately reflect institutional investors’ importance in closed-end funds market. The results failed to provide the evidence that institutional investors offset the position of individual investors or that institutional investor’s face systematic “noise trader risk”.

Gupta, L.C. (2005) in his Household Investors Survey stated that fifty per cent household investors, regardless of income or age, have a negative opinion of company managements, and 44 percent think they cannot rely on company auditors to prevent fraud, a survey subscribed by the Investor Education and Protection Fund managed under the Ministry of Company affairs.

On stock return seasonality and conditional heteroskedasticity – by Kenneth Beller (Washington State University) and John R. Nofsinger (Marquette University) (2005). They modeled the seasonal volatility of stock returns using GARCH specifications and size-sorted portfolios. Estimation results indicate that there was volatility differences between months of the year and that these seasonal volatility patterns are conditional on firm size. Additionally, they found that seasonal volatility did not explain seasonal returns when the reward for risk is held constant over the sample period. Specifically, their results indicated that much of the abnormal return in January for small firms cannot be entirely attributed to either higher systematic risk or a higher risk premium in January.
**Tomeo Moore, Christopher Green and Victor Murinde (2005)** estimated a flow of funds model for the household sector in India, within the Almost Ideal Demand System (AIDS) framework, and examined the demand for money and the substitution effects between money and other financial assets. The restricted long-run model, obtained by using co-integration techniques, which provides stable equilibrium relationship between I (I) variables and broadly satisfies the axioms of rational choice in consumer demand theory. They have found out that financial sector reform exerts a significant impact on the interest rate structure and household portfolio preferences; specifically, there is strong substitutability among risk-free assets and a possible speculative effect in the stock market, while the exchange rate strongly influences the demand for money. These findings all have important policy implications.

**R.R. Raja Mohan (2006)** in his research “an empirical study on the impact of financial knowledge on household portfolios” studied the impact on pensioners. He found that although Indian government has introduced contributory pension plans to the newly recruited employees from January 2004 and seven State governments have introduced the scheme to their employees and others have shown interest still the new system calls for the participant to manage their contribution by placing the responsibilities in deciding where their contribution should be invested and who should manage their contribution. He further highlighted that the work force was not ready to take such decision. Thus the study aimed at looking in to this aspect by analyzing the relationship between the financial knowledge and the investment of households in risky assets. The study found the existence of a significant and positive relationship between the financial knowledge
and ownership of risky assets, which calls the attention of the policy makers while proceeding further in implementing the defined contribution pension plan.

**Kavitha Ranganathan (2006)** Madurai kamraj university in her research paper stated that consumer behavior from the marketing world and financial economics has brought together to the surface an exciting area for study and research: behavioral finance. The realization that this is a serious subject is, however, barely dawning. Analysts seem to treat financial markets as an aggregate of statistical observations, technical and fundamental analysis. A rich view of research waits this sophisticated understanding of how financial markets are also affected by the 'financial behavior' of investors. With the reforms of industrial policy, public sector, financial sector and the many developments in the Indian money market and capital market, mutual funds which has become an important portal for the small investors, is also influenced by their financial behavior. Hence, this study has made an attempt to examine the related aspects of the fund selection behavior of individual investors towards mutual funds, in the city of Mumbai. From the researchers and academicians point of view, such a study will help in developing and expanding knowledge in this field.

**Harry M. Kat, Roel C.A. Oomen (2006)** in this paper What Every Investor Should Know about Commodities, Part II: Multivariate Return Analysis author studied the multivariate return properties of a large variety of commodity futures. We find that between commodity groupings (such as metals, energy, etc.) correlations are very low and mostly insignificant whereas within groups they tend to be much stronger. In addition, commodity futures are roughly uncorrelated with stocks and bonds. Still, correlations
may vary somewhat over the different phases of the business cycle, suggesting that not all commodities make equally good diversifiers at all times. Copula-based tests do not indicate any deviant behavior in the tails of the joint return distribution of commodity futures and stocks or bonds. Contrary to equities and bonds, we show that commodity futures returns are positively correlated with unexpected inflation (i.e. 25% on average with CPI inflation as opposed to -30% for equities and -50% for bonds). There are significant differences between the various commodities, however, with energy, metals, cattle, and sugar offering the best hedging potential. Altogether, assuming that the observed regularities will persist, our results confirm that a well-balanced commodity futures portfolio could offer a worthwhile diversification service to the typical traditional.

Brad. M Barber, Yi-Tsung Lee, et.al. (2006) documented that individual investors lose by trading in the stock market. On the contrary, institutions enjoy an annual increase in profits. The study conducted in Taiwan using a complete history of trading of individual investors proved that the individual investors suffered a loss of 2.8% of the total personal income or 2.2% of Taiwan’s G.D.P. This is mainly attributed to the investor bias.

Cars H. Hommes (2006) surveyed work on dynamic heterogeneous agent models in economics and finance. Emphasis was given to simple models that, at least to some extent, are tractable by analytic methods in combination with computational tools. Most of these models were behavioral models with bounded rational agents using different heuristics or rule of thumb strategies that may not be perfect, but perform reasonably well. Typically these models are highly nonlinear, e.g. due to evolutionary switching between strategies, and exhibit a wide range of dynamical behavior ranging from a
unique stable steady state to complex, chaotic dynamics. Aggregation of simple interactions at the micro level may generate sophisticated structure at the macro level. Simple heterogeneous agent models could explain important observed stylized facts in financial time series, such as excess volatility, high trading volume, temporary bubbles and trend following, sudden crashes and mean reversion, clustered volatility and fat tails in the returns distribution.

**Clay Gillepsie (2006)** made a research on mutual fund investors in the United States. It was found out that Investment return is far more dependent on investor behavior than on fund performance. Mutual fund investors who simply remained invested earned higher real returns than those who attempted to time the market.

**Hersh Shefrin (2006)** said when it comes to the identification of risk and the choice among risky alternatives; psychology and mathematics are both key drivers. In theory, risk management was a scientific enterprise. Risks are defined using probability measures. Risks were estimated using efficient statistical procedures, and risks were selected by means of an optimization program. In practice, risk management was a combination of art and science.

**Pi-Chaun Sun et.al. (2006)** examined the influences of overconfidence, mental accounting, regret aversion and self-control on the disposition effect of selling winners too early and holding losers too long. The results of empirical data analysis of 290 investors indicate that psychological factors have significant influences on the disposition effect. The findings show that (1) overconfidence, mental accounting and self-control
positively influence the disposition effect, and (2) self-control negatively influences the disposition effect. As predicted, self control can reduce irrational behavior of the investor.

Prithvi Haldea (2006) said that retail shareholders’ activism is yet to take off in India; there are not even 10 investor associations, of which, only two or three are doing any serious work. Independent directors, being ‘insiders’, will deliver only limited value. The experience of several developed countries showed that institutions were better placed than other kinds of investors to play a leading role in monitoring companies. The failure to do so may result in a loss for their investors. A recent corporate governance survey conducted by the World Bank in India throws disturbing findings. It showed that most domestic mutual funds play a passive role in the corporate governance of their portfolio companies. They seldom, if ever, review the agenda of shareholder meetings, leave alone attend it, or convene informal meetings with the management. Insurance companies and banks were relatively more active, FIIs a shade better. Significantly, all of them supported the incumbent management. Most institutions are myopic investors, uninvolved in corporate governance. They preferred that contentious matters were resolved behind the scenes, rather than put to vote to shareholders. Even the best chief executive of an institution was not willing to be an activist or be perceived as one.

Xiao Lu Wang, Kan Shi, Hong Xia Fan (2006) investigated the psychological mechanisms of risky investment behaviors in Chinese Stock Markets. A 42-item questionnaire was developed and distributed to 1547 individual investors recruited by stratified random sampling from Nan Fang Bond Company. A speculative orientation and a low level of risk
perception among Chinese investors were revealed. The results also showed that investors were deficient in investment knowledge and skills. Structural equation modeling was used to generate a risk perception-mediated model for investment behaviors. It was found that information from organizational institutional level can precipitate low risk perception and policy-oriented speculation of investors, which could be accounted for by the collectivistic culture in China and may not be beneficial to risk management in Chinese Stock Markets. Suggestions were made regarding the further development of stock markets in China.

Dean Hanlon, Sean Pinder (2007) examined whether an asset’s qualification for discounted tax treatment is associated with positive abnormal trading volumes and negative abnormal returns, as would be predicted if investors modified their behavior to reduce their tax liability. Their examination of 152 initial public offerings (IPOs) documents that there was an incremental increase in abnormal trading volume for those IPOs that have experienced a significant increase in price since listing over those IPOs that have increased only marginally. Although they provided only limited evidence to suggest that this increase in trading volume is accompanied by a decrease in returns, this is not unexpected in a market that has anticipated this type of behavior by the relatively small proportion of individual investors able to benefit from the discounted tax treatment.

Hoffmann Arvid (2007) in his study on Social Dimensions of Investor Behavior stated that Traditional finance theories assume that investors only evaluated risk and expected returns when making investment decision. The respondents of Hoffmann’s online
investment survey indicated that besides financial needs, they also strive to satisfy more socially oriented needs through investing. These investors like to identify themselves with other investors and enjoy participating in investment-related conversations. Moreover, these investors considered investing to be a nice free time activity. Hoffmann also investigated the effects of striving to satisfy these different needs on the decision-making behavior of these investors. It was found that investors for whom socially oriented needs are important also attribute more value to the opinion of others about their investment decisions and also request more information from these others before making their own decisions.

Itzhak Venezia, Zur Shapira (2007) compared the trading patterns of amateur and professional investors during the days following the weekend. The comparison was based on all the daily transactions of a large sample of both amateurs and professionally managed investors in a major brokerage house in Israel from 1994 to 1998. It was found that weekends influence both amateurs and professional investors; however they affected them in opposite directions. Individuals increased both their buy and sell activities, and their propensity to sell rises more than their propensity to buy. Professionals on the other hand tend to perform fewer buys as well as sell trades after the weekend, but unlike individuals, the drop in their activity was almost the same for buy trades and for sell trades. The results agree with the previous hypotheses raised in the literature, which were not directly tested, about the effects of the weekend on the predisposition to trade of individuals and institutions in other markets. It was also found that returns on the Israeli Stock Market Index are correlated in general with the behavioral patterns exhibited by the investors in the sample. In particular the returns on
the days following the weekend were lower than those in other weekdays in a manner consistent with the behavioral patterns.

**James J. Choi, et.al. (2007)** said investors expect that investments in which they experienced past success will be successful in the future, whether or not such a belief is logically justified. They also stated that return chasing and variance avoidance diminish with age.

**Kyrolainen Petri (2007)** concluded that his research supports prospect theory and also states that institutional investors are less affected by psychological factors underlying prospect theory.

**Malcolm Baker, Richard S. Ruback, Jeffrey Wurgler (2007)** in their research in behavioral corporate finance took two distinct approaches. The first emphasizes that investors are less than fully rational. It viewed managerial financing and investment decisions as rational responses to securities market mispricing. The second approach emphasizes that managers are less than fully rational. It studied the effect of nonstandard preferences and judgmental biases on managerial decisions. This survey reviewed the theory, empirical challenges, and current evidence pertaining to each approach. Overall, the behavioral approaches helped to explain a number of important financing and investment patterns. The survey closed with a list of open questions.

**Mishra Bishnu Priya (2007)** in her study entitled Investment Decision making process by employed women stated that desire for investment in gold is the same for all women
irrespective of their qualification; employed women who have personal savings of more than Rs.1,00,000 have a great desire for investment in real estate and educational qualification of employed women bears a relationship with investment in corporate bonds. Women who were self employed or who had professional degrees, showed a great interest for investment in corporate bonds.

Xinhua and Yongfu (2007) on Chinese saving rate has found that the most widely adopted view of precautionary saving which was regarded as the top reason of high saving rate in china is misleading and infect the household saving rate has declined dramatically since the mid 1990’s the studs’ further attributed the high national saving rate to the increasing share of both government and corporation disposable income.

Guido Baltussen (2008) stated that investors change their preferences in response to previous outcomes and they tend to use simplified heuristics to construct their portfolio.

Jasim Y. Al-Ajmi (2008) said that using a questionnaire method, his study presents new evidence on the determinants of risk tolerance of individual investors in Bahrain. On the basis of an analysis of close to 1,500 respondents, the findings indicated that as investors, men have high propensity towards risk tolerance than women. Investors with better level of education and wealth were more likely to seek risk than less educated and less wealthy ones. The study also reported those investors’ risk tolerance declines when they have more financial commitments as well as when they are approaching their retirement age or are retired. That was, the effect of investor’s age on risk tolerance is complex, in contrast to results reported elsewhere. Bahrainis were also found to be less
risk tolerant than non-Bahrainis. One of the most important implications of the results was that the investment industry should not treat investors as one homogeneous group; therefore, men and women as investors should be treated as separate market niches, each with its own needs and requiring targeted marketing strategies. Investment companies and financial service marketers should design investment programs to respond to the particular needs of women investors, men investors, investors with particular education and age levels, wealthy investors, and expatriate investors.

**Natalie Y. Oh, Jerry T. Parwada, Terry S. Walter (2008)** investigated the trading behavior and performance of online equity investors in comparison to non-online equity investors in Korea. While online trading has become more prevalent in financial markets, the role of online investors and their impact on prices has attracted little empirical scrutiny. They studied the trading activity of foreign investors, local institutions and individual traders between 2001 and 2005 and compared their performance based on whether or not trading is performed online. Their main finding was that in aggregate, online investors perform poorly in comparison to non-online investors. Between investor-types, foreigners showed the best returns, followed by local institutions. Individual investors provided liquidity to other investor-types, particularly when trading online. On balance, the main implication of their findings was that the disadvantage suffered by individual investors is mainly explained by their online trades.

**Report of survey, directed by Gupta et.al. (2008)** stated that between shares and mutual funds, household investors prefer investing in shares compared to investing in mutual funds. Among various types of mutual fund schemes, systematic investment plans have
become the most popular type. Typically, the household investors diversify their share portfolio to a moderate extent, i.e., among 3-10 companies. A practice among household investors was to diversify their investment in mutual funds also by dividing such investment among several mutual fund schemes. However, this is done to a rather limited extent. So far as middle and upper-middle class households were concerned, investing in the form of bank fixed deposits and governmental saving schemes are less preferred. The so-called “investing” in equity shares was predominantly oriented towards short-term speculation rather than long-term investment. As a result, our stock market is excessively dominated by speculative players. “Too much volatility” was regarded as the greatest worry by about 50% of the respondents, followed by “too much price manipulation” which was mentioned as the greatest worry by about 25% of respondents.

Dorota Skala (2008) Overconfidence in Psychology and Finance – In this study, researcher found one of the most meaningful concepts in modern behavioral finance, the overconfidence phenomenon. Overconfidence is presented as a well-developed psychological theory, with main facets comprising mis-calibration, better-than-average effect, illusion of control and unrealistic optimism. The primary applications of overconfidence in contemporary finance are analyzed, from the perspective of financial markets and corporate behavior. Experimental studies, formal models and analyses of market data demonstrate that overconfidence at least partially solved some financial market puzzles that cannot be accounted for by standard economic theory. Overconfidence in the corporate context may affect not only a company’s internal financing structure, but also its interactions with other market participants through merger and acquisition activity.
Tripathi Vanitha (2008) stated that the perceptions, preferences and various investment strategies in Indian stock market on the basis of a survey among 93 investment analysts, fund managers and active equity investors based at Delhi and Mumbai during May-October, 2007. Survey findings revealed that investors use both fundamental as well as technical analysis while investing in Indian stock market. Most of the respondents strongly agreed that various company fundamentals (such as size, book to market equity, price earnings ratio, leverage etc.) significantly influenced stock prices and hence addition of these factors in asset pricing model can better explain cross sectional variations in equity returns in India. Five most widely used investment strategies in Indian equity market are size based strategies, momentum strategies, following FIIs investment behavior, buying stocks on the basis of 30 days moving average and buying stocks on the basis of relative strength index. There has been substantial change in investment strategies used by active investors in Indian stock market over the past five years. In a nutshell there has been a shift from purely technical analysis based strategies to the one which involves both fundamental and technical analysis. Moreover the investment horizon of investors has also reduced due to higher volatility.

Anna A. Merikas, Andreas G. Merikas, George S., & Dev Prasad (2009) adopted a modified questionnaire to analyze factors influencing Greek investor behavior on the Athens Stock Exchange. The results indicated that individuals base their stock purchase decisions on economic criteria combined with other diverse variables. The authors did not rely on a single integrated approach, but rather on many categories of factors. The results also revealed that there is a certain degree of correlation between the factors that behavioral finance theory and previous empirical evidence identify as the influencing
factors for the average equity investor, and the individual behavior of active investors in the Athens Stock Exchange influenced by the overall trends prevailing at the time of the survey in the Athens Stock Exchange.

Cho-Min Lin, Yen-Hsien Lee, Chien-Liang Chiu (2009) investigated the impact of the expected and unexpected trading behavior of foreign investors on return volatilities during structural change periods and the jump intensity model pinpoints crucial events that have influenced the stock market. The empirical results find that there has been a stabilizing effect of foreign investment on Taiwan's stock market as restrictions on foreign trading have been gradually relaxed, as opposed to there being a complete relaxation of the restrictions imposed on Qualified Foreign Institutional Investors (QFII).

Nikiforow and Menkhoff (2009) provided evidence on the hypothesis that many behavioral finance patterns are so deeply rooted in human behavior that they are difficult to overcome by learning. They tested this on a target group which has undoubtedly very strong incentives to learn efficient behavior, i.e. fund managers. They split this group into endorsers and non-endorisers of behavioral finance. Endorsers do, indeed, view markets differently as they regard stronger influences from behavioral biases. However, when it came to the perception of one's own behavior the endorsement of behavioral finance becomes almost meaningless, even though endorsers otherwise do adapt behavior towards their conviction.

Saurab Singh (2009) stated that investment decisions made by investors are not solely dependent on price movement and stability of the markets. His study has resulted in
listing factors as age, sex, education, family, and the past performance of a company’s securities as variables or attributes, having significant influence and impact on the investors’ investment decision making process.

Ashok Khurana, Vikas Chaudhary (2009) An Empirical Study of Retail Investor’s Attitude towards Investment in Mutual Funds In the financial industry, Mutual Funds has become a hot favorite of millions of people all over the world. A mutual fund was a special type of institution, a trust or an investment company which acts as an investment intermediary and invests the savings of large number of people to the corporate securities in such a way that investors get steady returns, capital appreciation and a low risk. It was essentially a mechanism of pooling together the savings of a large number of investor for collecting investment with an avowed objective of attractive yields and appreciation in their values. The concept of 'Mutual Fund' was a new feature in Indian capital market but not to international capital markets. A mutual fund in the most suitable investment for the retail investors as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. At the retail level, investors are unique and are a highly heterogeneous group. A large number of investment options are available to investors. Currently there are large numbers of schemes available and asset management companies (AMCs) compete against one another by new products or repositioning old ones. Unless mutual fund schemes are tailored to the changing needs, and the AMCs understand the fund selection behavior of the investors, survival of funds will be difficult in future. With this significance an attempt is made to study the attitude of mutual fund investors.
Mark A. DeWeaver, Randall Shannon (2010) argued that existing explanations for the stock-market investor's disposition to “ride losers too long” are unsatisfactory because they abstract from any role for information processing. They propose instead that the disposition effect is a special case of “waning vigilance” investors pay less attention to new information and analysis when making decisions about loss makers and are therefore slower to sell them when arguments in favor of holding cease to be valid.

Martin T. Bohl, Christiane Goodfellow, Jedrzej Bialkowski (2010) examined individual investors’ trading behavior by testing the presence of Monday and January anomalies on the Polish futures market, where individuals are the predominant trader type. Both anomalies are well established in the literature, and they are at least partially attributed to individual investors’ trading activities. They conduct an intraday analysis of trading volume, open interest, returns, and return volatility on the futures market in Poland and find the contribution of individuals to market anomalies to be grossly overstated. Hence, individual investors’ trading on the Polish futures market surpassed the prediction by the majority of investigations for mature stock markets.

Tabassum Sultana Syed (2010) discussed the characteristics of the Indian individual investors, also made an attempt to discover the relationship between a dependent variable i.e., Risk Tolerance level and independent variables such as age, gender of an individual investor on the basis of the survey. Indian investors are high income, well educated, salaried, and independent in making investment decisions and conservative investors. From the empirical study it was found that irrespective of gender, most of the investors (41%) are found to have low risk tolerance level and many others (34%) have
high risk tolerance level rather than moderate risk tolerance level. It is also found that there is a strong negative correlation between Age and Risk tolerance level of the investor. Television is the media that largely influences the investor’s decisions. Hence, this study can facilitate the investment product designers to design products which can cater to the investors who are low risk tolerant.

Saurabh singh (2010) Investors’ Behavior at Indian Capital Markets Investment decisions made by the investors’ were not solely dependent upon price movement and stability of the markets. The study has resulted in listing, factors as age, sex, education, family, and the past performance of a company’s securities as variables or attributes, having significant influence and impact on the investor’s investment decision making process. Risk evasiveness was found to be the case with majority of investors’, very much unlike the present day young investors’ who happen to be comparatively skilled, informed with access to all kind of sources of information, and having more appetite for risk. The fact that assumption of ‘rational behavior’ was itself erroneous has time and again been exposed by researchers and scholars of the discipline. This study identified, understood and explained that how human emotions influenced the investors’ decision making process. The element of emotions silently contributed towards increasing the probability of mistake on the part of investors’ itself and consequently resulting in false or biased expectations as regards to future returns to be gained from present investment leading to mispricing of securities in the market. The element called ‘emotions’ [being witnessed as behavior to outside world] and ‘psychology’ were supposed to study human fallibility, systematic mistakes and biased judgments.
Context Manoj Kumar Dashl (2010) Factors Influencing Investment Decision of Generations in India: An Econometric Study. This study aimed to gain knowledge about key factors that influenced investment behavior and ways these factors impact investment risk tolerance and decision making process among men and women and among different age groups. The individuals may be equal in all aspects, may even be living next door, but their financial planning needs were very different. It was by using different age groups along with Gender that synergism between investors can be generated. In this context, demographics alone no longer suffice as the basis of segmentation of individual investors. Hence keeping this in mind, this study was an attempt to find out Factors which affected individual investment decision and differences in the perception of Investors in the decision of investing on the basis of Age and on the basis of Gender. The study concluded that investors’ age and gender predominantly decides the risk taking capacity of investors.

Syed Tabassum Sultana (2010) has studied Indian investor today have to endure a sluggish economy, the stock market declined prompted by deteriorating revenues, alarming reports of scandals ranging from illegal corporate accounting practices like that of Satyam to insider trading to make investment decisions. Stock market’s performance was not simply the result of intelligible characteristics but also due to the emotions that are still baffling to the analysts. Despite loads of information bombarding from all directions, it was not the cold calculations of financial wizards, or company’s performance or widely accepted criterion of stock performance but the investor’s irrational emotions like overconfidence, fear, risk aversion, etc., seem to decisively drive and dictate the fortunes of the market. This paper while discussing the characteristics of
the Indian individual investors along makes an attempt to discover the relationship between a dependent variable i.e., Risk Tolerance level and independent variables such as Age, Gender of an individual investor on the basis of the survey. Indian investors are high income, well educated, salaried, and independent in making investment decisions and conservative investors. From the empirical study it was found that irrespective of gender, most of the investors (41%) are found have low risk tolerance level and many others (34%) have high risk tolerance level rather than moderate risk tolerance level. It is also found that there is a strong negative correlation between Age and Risk tolerance level of the investor. Television is the media that is largely influencing the investor’s decisions. Hence, this study can facilitate the investment product designers to design products which can cater to the investors who are low risk tolerant.

PhilipR.Brown, Andrew Ferguson, SamSherry (2010) in this study author calibrated the effect of Australia’s Capital Gains Tax (CGT) on share prices and market activity. Based on a large sample drawn from all listed Australian companies for the years 1994–2007, we found significant tax-loss selling (TLS) of shares that lost value over the financial year, which is reflected in unusually high trading volume and more sell orders in June and a rebound in July. There was some evidence that small mining stocks were particular targets for TLS. Interestingly, the 1999 CGT reforms, which introduced concessions for long-term capital gains, did not reduce the incidence of TLS.
GAPS IN RESEARCH

The main issues seen in the literature in the context of individual investor and household portfolios were availability of opportunities for the investments, financial awareness, planning for retirement income, risks etc. While in developed countries, the issues were mainly related to longevity risk, need for annuitization and low annuitization rates besides the impact of income and financial knowledge or planning for retirement income. In case of a developing country like India, the concern was low-income levels and lack of financial knowledge besides issues related to access to alternative instruments.

Most of the studies discussed in this section either analyzed the factors influencing the ownership of risky assets or the amount of investments made in risky assets. Only few studies have analyzed the factors influencing the ownership and proportion of risky assets on total assets. Investors take two stage decisions in portfolio formation, in the first stage. The household decides about the combination of assets in their portfolio (the discrete portfolio choice). In the second stage they decide about how much to invest in different assets (the continuous portfolio choice).

To broadly categorize and analyzing gaps here, it would be justified to state that the existing studies are inadequate to find out if at all there has been any change in the investment pattern or portfolio preferences of the Investors in a country that has undergone economic and financial reforms in recent times. Early researchers examined how people invest the assets they do have control over.
One important fact is that this is a relatively new field, and a great deal has been taken by the researchers to understand this unexplored area, but more remained to be learned. Researchers are severely handicapped because they lacked good data on household asset accumulation patterns and asset holdings as well as other pertinent information about preferences and constraints. Studies are ongoing in the USA, to identify various avenues of investments available for the households. None has been done in the setting of a developing country. Effects of reforms in an expanding economy are usually viewed at macro level, but then to view them at micro level with primary data has seldom been attempted. In order to fulfill this huge gap the present research is at attempt to study the household investment behavior in India, in terms of composition, determinants, motives of investment and factors affecting their investments.

The Literature on investors’ behavior from various countries such as the UK, US, Japan, and European countries like Netherlands, France, Sweden and India were reviewed. The findings of the studies were summarized across various countries. In Italy education had a positive impact on the ownership and the proportion of risky assets in total wealth, while age had a hump shaped profile. While In Germany, age had a hump shaped profile and education had a positive impact on the ownership of risky assets. In the United Kingdom age had a hump shaped profile, while education and marginal tax rate had a positive impact on the ownership of risky assets.

In Sweden, Income and marginal tax had a positive impact on the ownership of risky assets. Age and education had a positive impact on the proportion of risky assets in the total wealth. In the case of occupation, white collar household head had a positive
relationship with both the ownership of risky assets and the proportion of risky assets in the total wealth when compared to the rest of the respondents.

In the USA income, education and marginal tax rate had a positive relationship with both the ownership of risky assets and the proportion of risky assets in the total wealth. Defined benefit pension plan and home ownership had a positive impact on the ownership of risky assets, while age had a negative impact on it. Household size had a negative impact and age a hump shaped profile on the proportion of risky assets in the total wealth.

In South Korea income had a positive impact on the proportion of risky assets in the total wealth.

In India, age had a negative impact and education a positive impact on the ownership of risky assets. The life cycle stage of the investors was found to have an impact on the size of the investments made in risky assets. The findings of the few Indian studies were in line with the findings of European and the US studies, in case of the variables: Age and education in the ownership of risky assets and the life cycle stage in case of proportion of risky assets in the total wealth.

Three facts emerged from the empirical surveys of composition of household portfolios. Firstly, it was immediately evident that the portfolios of different households were surprisingly diverse. Portfolios differ by wealth, by the country in which the household lives, and by various household characteristics such as the age, education and birth years of the members. Secondly, in all countries, the average household’s portfolio was
typically invested mainly in safe or in only slightly risky assets, once residential housing is excluded. These low risk assets might include bank accounts, such as savings and checking accounts, time deposits, and life insurance. This was even true in the US and the UK, where stockholding was traditionally high, but it was especially true in other countries.

Finally, most households appeared to keep their portfolios very simple, with fewer than five different assets or accounts, despite the tremendous proliferation of different asset types in the 1990’s. Although very few asset surveys included the implicit value of state benefits such as old age pensions and medical insurance, it was probably fair to say that almost all families in developed countries have a large proportion of their wealth in these benefits.

Thus, age, income, education, occupation, homeownership, household size, marginal tax rate and pension benefit status are the factors found to have had its impact on the household portfolio.
**IMPLICATIONS OF LITERATURE REVIEW**

On detailed deliberations on the reviewed literature, and the above conclusion, the following implications were identified.

1. Systematic objectives formation became possible.
2. Certain terms were better defined through a reduction in ambiguity.
3. Ambiguities in methodology and design were reduced.
4. More appropriate interpretation of data became possible.

**SUMMARY**

In this presentation of literature review through Journals, Magazines, Books and Websites of economics and financial management (investor behavior in particular), an understanding was developed about the problem identification, sample selection, tools of study and methods of data analysis and inferences etc.

**CONCLUSION**

The above review of literature on past works show that a considerable amount of empirical analysis has been carried out on the investor behavior. The differences in time span covered, methodology adopted and the crops and regions covered by various scholars render the conclusions reached by them of limited significance to other regions.

This study, purely a regional and micro level study, therefore, attempts to bring out the determinants of investor behavior in the State of Haryana.
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