CHAPTER-II

Behavioural Finance
& Review of Literature
2.1. INTRODUCTION TO BEHAVIOURAL FINANCE

Understanding Investor Behaviour has become a topic of high importance in academic research due to the size of equity oriented securities across the globe. Especially after Daniel Kahneman and Vernon LSmith shared the prestigious Nobel Prize in the year 2002 for their extraordinary contribution to the area of Behavioural Finance and the recent global economic recession, research in this area is attracting attention.

Investment behavior is defined as how the investors judge, predict, analyze and review the procedures for decision making, which includes investment psychology, information gathering, defining and understanding, research and analysis. (Slovic, 1972).

2.1.1 Behavioral Finance Versus Traditional Finance

According to Baker and Nofsinger (2002), the difference between traditional and behavioral finance is an issue of how each discipline is developed. Traditional finance has developed in a normative way; it concerns the rational solution to the decision problem by developing ideas and financial tools for how investors should behave rather than how actually they do behave. In this respect,
behavioral finance is descriptive because it offers explanations for what actually happens rather than what should happen.

According to Statman (1999), some of the distinctions between rationality and irrationality in the investment context are a distinction between utilitarian and value-expressive characteristics, the two groups into which marketing scholars, such as Munson and Austin (1981), classify product characteristics. He states that value-expressive characteristics are those that enable users of a product to identify in it their values, social class, and lifestyles. They are most prominent in jewelry, less prominent in automobiles, and almost absent in laundry detergents. In the investment context, risk is a utilitarian characteristic and those who restrict their attention to it are considered rational. The notion of ‘rationality’ is not so simply extended to other characteristics such as social responsibility, display of wealth, or the excitement of an initial public offering. Proponents of standard finance often regard that the value-expressive motives of investors are unimportant distractions from the bigger notion, namely, asset-pricing models. On the other hand, behavioral finance proponents would incorporate both utilitarian and value-expressive traits.

According to Statman (2008), standard finance has four founding blocks:

1. Investors are rational;
2. Markets are efficient;
3. Investors should design their portfolios according to the rules of mean-variance portfolio theory and, in reality, do so; and
4. Expected returns are a function of risk and risk alone.

And behavioral finance offers an alternative block for each of the foundation blocks mentioned before:

• Investors are ‘normal’ not rational;
• Markets are not efficient, even if they are difficult to beat;
• Investors design portfolios according to their rules of behavioral portfolio theory, not mean-variance portfolio theory; and
• Expected returns follow behavioral asset pricing theory, in which risk is not measured by beta (which is a measure of market volatility) and expected returns are determined by more than risk.

Looking at the history of behavioral finance, which is rather short compared to other sciences, one can inclined to believe that behavioral finance is not a replacement to traditional finance in any way. It is just a different view of the issue. It builds on traditional finance in many ways, but with more tolerance to other scientific views that helps it to give better understanding of financial decisions.

2.2 INTRODUCTION TO REVIEW OF LITERATURE

In this review of literature, an attempt is made to present a brief review of relevant studies carried out on the present investigation. Several researchers have studied the factors influencing equity investment decision from different perspectives and documented innumerable findings. However, due to paucity of
time, money and other resources, it is not possible to review all the studies. This review, therefore, outline small number of these studies.

The literature review is presented into two major parts. The first part reviews the work of previous researchers on various factors influencing equity investors’ decision making process. The second part reviews the research done on women investors.

PART-I

Literatures were reviewed in this part to attain the objectives of identifying factors influencing equity investors’ investment decision and also to identify the research gaps.

2.2.1 Perception

Paul Slovic (1972) discussed in his research that most of the investors who invested on equity shares have a tendency of looking on the returns generated by equity shares of well established companies or stock market indices returns before making their investment decision. Though the past returns on equity shares do not give guarantee for any future returns, investors perceive that equity shares are giving better returns to beat the inflation rate and hence they are committing on equity shares.

Similarly, Diacon, S. (2002) found in his research that most of the investors perceive equity investment is suitable to achieve their long term objective and hence those investors whose needs are arising in less than three years of investment prefer to invest on fixed income securities.
Further, Lakshmi C. (2005) has stated that the reason for not investing on equity shares and equity oriented securities by Indian investors is the perception that equity investments are risky. She added that though the investors are aware of success stories of equity investment, as they perceive that they do not understand various risk minimisation techniques, they feel it is better to stay away from equity investment.

Substantiating the above statement, Koundinya. C (2010) concluded in his research that, the perception of risk associated with equity investment made some of the Indian investors believe that equity investment is not suitable to them especially after Indian stock market crash due to the global economic recession of 2007-08.

2.2.2 Beliefs

Weinstein (1980) stated that it is belief that an individual is having over an object will cause some action. He further stated that belief leads to development of an attitude towards the objective; be it positive or negative. If the belief is transforming into positive attitude, then an individual is more committal on his action.

Similarly, Buehler and Ross (1994) have mentioned that people with stronger beliefs are also having stronger confidence on themselves. After conducting a research among American equity investors, they said, people with greater belief that equity investment will certainly help them in achieving their
financial objective have shown greater confidence on equity investments were continue to invest on them despite of many stock market bubbles.

Hemanth. P.K (2011) has conducted a survey among Indian investors and he found that majority Indian equity investors tend to invest on equity investments through Mutual Fund schemes. He stated that they believe that management of equity investment is not a child’s play and hence it is better to trust the experts.

Further, in another study conducted by Srivastava.V. (2012) on investment attitude of Indian equity investors, it is found that Indian equity investors have a firm belief that in the long run equity investments will undoubtedly offers higher return than other investment alternatives and as a result, despite of the Indian stock market crash in 2007, many new equity investors have made investments in subsequent years.

2.2.3 Attitude

Behavioural Finance experts have to use a range of concepts while understanding investors and markets. One among such concept is “Attitude” of investor. Behavioral investors consider building portfolios as pyramids of assets, layer by layer. The layers are associated with particular goals and particular attitudes toward risk. Behavioral portfolio theory answers some portfolio questions and asks others (Hoje Jo 2008).

Selden (1912) in his research article “Psychology of Stock Market” mentioned that once the equity investor develops positive attitude towards investment, he remains committed towards it despite of resistance from any
internal or external forces. Further, Weinstein, N. (1980) added that people who are having positive attitude would like to prove those who are injecting negativity wrong. As a result, positive attitude actually makes him ready to face challenges which the stock market will pose due to its fluctuations.

Wurgler, J. and K. Zhuravskaya. (2002) have made a similar observation. They stated that, people those who invest on stock market will not earn profits every time. Those who are not having positive attitude are not able to be patient even when there is a minor correction in stock markets. They immediately liquidate their holdings. On the other hand, investors who are having positive attitude towards their investment decision are making use of any correction in the stock market by investing some more amounts by capturing whenever the prices are falling and are able to earn additional profit.

2.2.4 Learning and Motivation

For a person to do something new for the first time, one important psychological characteristic is “learning and motivation” which teach lessons from the past. This learning and motivation trait helps the investors not just learning lessons from their own experience but also from the experiences of others. Due to this particular characteristic, every year markets are witnessing first time investors even during the most difficult times as these first time investors have learned from their observation that when the markets have corrected very sharply, there exists an opportunity to invest (Shefrin, H. and M. Statman1999).
Rao.C.J (2010) added another perspective to the impact of learning and motivation on investment decision of individuals. He said “People who always want to achieve something new in their life would like to learn things to enter into that area irrespective however riskier that new area may be. They always want to remain as standout achievers in their society”. He conducted a survey among the first time equity investor in India, who has invested during the time of global economic recession to enquire the reasons for investing at that time and found that most of them were highly self motivated to learn and exploit the possible investment opportunities that were existing during deep crash of stock markets.

Similarly, Polk, C. and P. Sapienza. (2001) have also added another dimension. They stated that those people whose quest for learning is very high actually have an ambition of sharing the knowledge which they acquire through learning with others. They went on to say that this kind of investors feel happy when others get profits due to their investment advice. So these investors are very helpful to society as they motivate others also to enter into the market.

2.2.5 Value

Some invest in the market for fun as they are not worried on losing their entire investment as they are investing only that much money which is not causing any significant damage to their financial position, if it is completely lost. But, other kind of investor put very high value to their investments and as a result, they take necessary care to safeguard their investment (Shefrin Hersh M 2002),
Thaler Richard (1999), stated that most of the investors who put a high value on their investments, seek professional’s or expert’s advice before they make up their mind. He further stated that, in some cases, even the most experienced investors are also consulting others not just for the reason that they are investing large amount of money but for they place value on their investments. Another interesting phenomena is observed by Ritter Jay (2003), was that most of the investors who are placing value on their investments have certain target price in their mind to enter and exit in the market. Whenever their target value is achieved, they immediately take the action which was predetermined. They do not regret later when they come to know that the price of the security has raised after their sale. Investors who are placing value on their investment spare time to track the performance.

2.2.6 Friends

Role of friends on any individual is inseparable. They influence on even most of the crucial personal issues of individuals that include one’s own marriage, children marriage, purchase of house and almost every issue (Shilpa Y.S.L 2000). In the case of most of the first time investors, they are introduced to the investment world by their friends, Rao.C.J.(2010). Similarly, Chan, Y. and L. Kogan (2002) concluded that normally friends are the main source to draw inspiration and motivation especially while doing any adventurous activities. This is especially true in the case of investment decision. Whenever investors are making investments on such assets which are associated with risk, they tend to approach
their friends to get mental support from them by getting their approval so that they can feel that they are doing nothing wrong.

In a research conducted by Samantha (2010) on effect of friends on the investment decisions of individuals, she conducted a survey in USA among 500 respondents and she found that some are investing just because their friends are also investing. Their objective is not just earning good returns on their investment, but to be in association of their friends.

Gali J (1994) found that it is quite common among the investors to copy the investment decisions of their friends, who are having good knowledge of investments. He further mentioned that this tendency of copying friends is relatively high among the first time and new investors.

2.2.7 Work Place

Blume, M.E., and I. Friend (1978) found that the investors who are working in listed companies tend to invest on equity shares more in number than those employees working in unlisted companies. The reason which they mentioned was, the investors working in listed companies generally receives shares of the companies in which they are working under employee stock option scheme. As a result, they are better aware of the stock markets and equity investments. On the other hand, the investors who are working unlisted companies are not having much of awareness.

They found that those who are working in challenging and risky jobs like Armed forces are investing on equity and other relatively risky assets. A majority of investors who are teachers and other professionals working in non hazardous working environment are investing on securities that are less in risk. They mentioned that those investors who face risk by virtue of their job or profession are not sure of their survival and hence they try to get maximum returns in least possible time.

Goodwin, H.T (1995) has added one more valid point in support of impact of Work place and Profession on investment decision. He said those professionals who are preoccupied for longer hours due to their job, could not frequently review their portfolios. On the other hand, those professional who are able to have luxury or time due to less consumption of time by their job are able to review their portfolios more frequently.

2.2.8 Media

One cannot omit the role of media on the decisions of individuals. Most of the people get the awareness about any product through the media. In a survey conducted by Lakshmi C.N (2003), it is found that media is playing a larger role than any other source of information that is influencing consumer buying decision making process. She stated that media is not just creating awareness among public but also playing a vital role in terms of providing them required knowledge.
This point is further supported by Kim, K.A., and John R. Nofsinger. (2007) who have conducted a research in Japan to understand investor behavior. They found that Tele Vision media in Japan is telecasting various investor education programmes that are in turn impacting investor decision making process.

2.2.9 Professional Advice

Tapia and Yermo (2007) conclude from their review of mandatory individual account pension schemes that, in general terms, international evidence appears to reveal a preference among plan members towards equity funds. They note, however, that this is due to the professional advice that members receive. Recent UK survey data indicates that around 50 per cent of private pension purchasers received advice pre-purchase, where an adviser either recommended a product or recommended a product and went on to arrange a sale (Finney and Kempson, 2008).

The quality of financial advice that consumers receive has, however, been called into question by a number of research studies. UK consumer research (both qualitative and quantitative) has highlighted disparities between consumer and adviser definitions of ‘low risk’ (Conquest Research Limited, 2004) and the risk involved in different investment products (Diacon, 2002).

Mystery shopping among 50 firms offering financial advice found that just over a quarter of firms established customers’ attitudes to risk ambiguously, and a few did not establish it at all (Financial Services Authority, 2006).
In Australia, shadow shopping in relation to superannuation schemes highlighted that in some cases advice was not appropriate for the customers’ needs in some way, or the adviser had not made sufficient enquiries to assess appropriateness. Where advice was provided on switching investment funds, in about a third of cases it was assessed that there was clearly or probably not a reasonable basis for the advice. The main problems involved advice to switch to higher-fee funds with no countervailing benefits or the loss of important insurance cover through fund switching (Australian Securities and investments Commission, 2006).

2.2.10 Age

In the late 1960s economists developed models which put forward that individuals should optimally maintain constant portfolio weights throughout their lives Samuelson (1969). A restrictive assumption of these models is that investors have no labour income (or human capital). However, as most investors do in fact have labour income, this assumption is unrealistic. If labour income is included in the portfolio choice model, the optimal allocation of financial wealth of individuals changes over their life cycle (Bovenberg et al., 2007).

Not only do young workers have more human capital, they also have more flexibility to vary their labour supply—that is, to adjust the number of working hours or their retirement date—in the face of adverse financial shocks. Flexible labour supply acts as a form of self-insurance for low investment returns. Bodie, Merton, and Samuelson (1992) show that this reinforces the optimality result, that is, that younger workers should have more equity exposure. Teulings and De Vries
(2006) calculate that young workers should even go short in bonds equal to no less than 5.5 times their annual salary in order to invest in stock. The negative age dependency of asset holdings corresponds to the rule of thumb that an individual should invest (100-age)% in stocks (Malkiel, 2007).

The negative relationship between age and equity exposure in the portfolio is usually derived under the assumption that human capital is close to risk free, or at least is not correlated with capital return. Benzoni, Collin-Dufresne, and Goldstein (2007) put forward that the short-run correlation is low indeed, while in the longer run, labour income and capital income are co-integrated, since the shares of wages and profits in national income are fairly constant. This finding implies that the risk profile of young workers' labour income is equity-like and that they should therefore hold their financial wealth in the form of safe bonds to offset the high-risk exposure in their human capital. For that reason, Benzoni, Collin-Dufresne, and Goldstein (2007) suggest that the optimal equity share in financial assets is hump-shaped over the life cycle: co-integration between human capital and stock returns dominates in the first part of working life, whereas the decline in human capital accounts for the negative age dependency of optimal equity holdings later in life.

2.2.11 Family

Most of the studies in this period regarding the interaction of the child and other family members in consumer context investigated the consumer socialization
process, which could be defined as the process of learning consumer related skills, knowledge and attitudes Mehrotra and Torges, (1976). In this process, the family is viewed as the dominant socializing agent, by which the child learns consumption skills. However, consumer socialization in families is a two way process, that is, the child also acts as a medium to socialize the parents by influencing the family purchase decisions. In such a reverse socialization context, the influence of children on family purchase decision showed up in only a few studies until 1980s. (S. T. Akinyele 2010)

In most studies, the child’s age was found to be the predominant factor of impact on family decision making. Ward and Wackman (1972); Akinyele (2005) found that parental yielding to influence attempts increased with the child’s age. Other studies similarly concluded that older children have significantly higher influence on family purchase decisions compared to the younger ones. The impact of age on children’s influence is twofold, first, children’s age is positively related with the parent’s yielding behaviour; and second, as the age increases, children make attempts to influence the purchase of more product categories. (Mehrotra and Torges 1976).

Apart from the influence of children on buying decision, some researchers have done research on the influence of other members of family. Scanzoni (1977) has long held that changing sex roles and how they are perceived by family members directly affects family decision-making practices. Among the household decision practices that have been shown to be affected by sex roles are: the buying
process, the handling of finances, household task allocation and, and marital behavior. (Cunningham and Green, 1975)

2.2.12 Locus of Control

Locus of control is a concept describing whether people feel that control of their lives rests in their own hands (internal locus of control) or in the hands of others (external locus of control) (Rotter, 1966). Locus of control is a term in psychology which refers to a person’s belief about what causes the good or bad results in his or her life, either in general or in a specific area such as health or academics. Understanding of the concept was developed by Julian B. Rotter in 1954, and has since become an important aspect of personality studies.

Locus of Control refers to the extent to which individuals believe that they can control events that affect them. Individuals with a high internal locus of control believe that events result primarily from their own behavior and actions. Those with a high external locus of control believe that fate, or chance primarily determines events. Those with a high internal locus of control have better control of their behaviour and tend to exhibit more political behaviors than externals and are more likely to attempt to influence other people; they are more likely to assume that their efforts will be successful. They are more active in seeking information and knowledge concerning their situation than those with external locus of control. The propensity to engage in political behavior is also stronger for individuals who have a high internal locus of control.
Locus of control, according to Rotter’s approach, can be divided into two separate sources of control: internal and external. People with an internal locus of control believe that they control their own destiny. They also believe that their own experiences are controlled by their own skill or efforts. An example would be “The more I study, the better grades I get” (Gershaw, 1989). On the other hand, people who tend to have an external locus of control tend to attribute their experiences to fate, chance, or luck. (Kasilingam R 2010).

2.2.13 Income

Sita L.Y. (2011) found that, income played a peculiar role in influencing Indian equity investor. He stated that, contrary to many earlier researchers’ opinion, a good number of low income group investors have also invested along with other income classes on equity oriented securities. He further stated that, investors from equity investors usually are motivated by “get rich quickly” phenomena of equity investment and with the introduction of equity derivatives in India, some of them are even speculating in that segment.

2.2.14 Return and Risk

Quantitative and qualitative research carried out in the past indicates that attitudes to investment risk depend on factors such as personality, circumstances, educational attainment, level of financial knowledge and experience, and extent of financial product portfolio (Conquest Research Limited, 2004; Distribution Technology, 2005). Quantitative research carried out in the US identifies a similar
range of factors, including income, wealth, age, marital status, gender and level of education (Finke and Huston, 2003).

In general, it has been observed that women are more risk averse than men, the young are more risk seeking than the old, wealthier individuals manifest a greater willingness to invest in equities and the poor are risk averse (Clark and Strauss, 2008). One US survey (of faculty and staff working at a large university) found that a combination of education, financial knowledge, income and occupation explained the most between-group variability in risk tolerance. Even so, this model only explained about 22% of an individual’s financial risk tolerance, suggesting that other factors might differentiate levels of risk tolerance more effectively, such as attitudinal or psychological factors (Grable, 2000).

Attitudes to risk change over time as needs alter and people’s capacity to afford to lose varies (Conquest Research Limited, 2004). The evidence indicates fairly clearly that willingness to take financial risk decreases significantly among people who are retired or nearing retirement (Distribution Technology, 2005; Finke and Huston, 2003). In addition, work carried out in the UK on the measurement of investors’ risk appetite (which depends on their attitude to risk) suggests that it fluctuates within a relatively narrow gauge during ‘normal’ times, but falls sharply during crises (Gai and Vause, 2005).

On the whole, UK consumers have been found to be risk averse - particularly non-savers and those on low incomes (Atkinson et al., 2006; Hall et al., 2006; Distribution Technology, 2005; Conquest Research Limited, 2004).
2.2.15 Awareness

Verma.P. (2012) found that awareness of various equity oriented securities among Indian investors is increasing due to various investor education programmes conducted by Securities and Exchange Board of India (SEBI) and Association of Mutual Funds in India (AMFI). He stated that, due to the increased awareness about equity oriented securities, the number of new investors is growing at a healthy rate in India. He further stated that, increased awareness is also motivating the equity investors to acquire knowledge on various investment strategies and risk minimisation techniques.

2.2.16 Financial Freedom

Harshvardhan.S. (2011) pointed out the importance of financial freedom in making equity investment decision. According to him, financial freedom is the ability of the investor in making the funds available for investment and his independency on making investment decisions on his own. He said, the proportion of investment on equity oriented securities by most of the Indians is less when compared with proportion of investment on other financial assets like, bank deposits and post office saving shames as the element of risk associated with equity shares is relatively higher and the social security measures by the Indian Government are very less.

2.2.17 Financial Knowledge

Evidence from the US and the UK supports the notion that individuals lack the knowledge and understanding to make pension investment choices. Clark and
Strauss (2008) cite evidence from the US that calls into question the ability of pension plan participants to make decisions that are consistent with their long-term financial needs, because of lack of financial knowledge and understanding.

In a survey of US employers offering 401(k) plans, 80 per cent of employers reported that their employees were confused about ‘where to invest/what fund to use’ and 55 per cent reported that employees were confused about how much to save for retirement (Deloitte, 2008).

Qualitative research carried out in the UK indicates that (with some exceptions) consumers generally find choice in pension schemes confusing and feel ill-equipped to make decisions about the sorts of funds they should invest in, without first seeking professional advice (Bunt et al., 2006). For some groups (low income and those without pension provision), even in the case of making a choice from a shortlist, reservations about making a provider choice persisted (Hall et al, 2006). A survey carried out in one UK company found that knowledge and interest in pensions and investment choice was low among members of its occupational pension scheme; scheme members who had received financial advice exhibited more interest and knowledge, however (Byrne, 2007).

Other qualitative research with UK workers eligible to join an employer pension scheme found that pension purchasing decisions were generally characterised by confusion and apathy, with decisions taken in a way that was neither completely rational or completely informed (Harrison et al., 2006).

2.2.18 Technology
Infrastructure like Internet and Mobile telephony coupled with lending by financial institutions play a significant role in impacting investment decisions. Rao Y.K (2009) conducted a study in India and found that internet and mobile telephone played a significant role in increasing the number of investors to a greater volume. He further stated that as most parts of rural India is also having good internet connectivity, sooner or later, the number of village and sub-urban investors will match the number of urban investors.

Similarly, Srivastava .V. (2011) did a research in analyzing the role of technology in mobilisation of funds by Mutual Fund companies in India. She identified that the technology used by Asset Management Companies (AMCs) of Indian Mutual funds is helping the investors to be able to invest, redeem and switch from one scheme to the other by using internet and mobile telephony has helped the industry to improve the participation rate by mutual fund investors. Further, Ahmed, Answer S, et al (2012) stated that online trading is not just increasing the number of investors, it is also helping them to experiment with new concepts like algorithm trading and high frequency trading.

With the help of the above review of literature, the following summarized table is prepared to list out the factors effecting investment decision of individuals and the contributors.
TABLE-2.1

List of Factors effecting Investment Behaviour & Authors

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<tr>
<th>S.N</th>
<th>Factor effecting Investment Decision</th>
<th>Author’s Name</th>
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<tbody>
<tr>
<td>1</td>
<td>Perception</td>
<td>Paul Slovic</td>
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<td>2</td>
<td>Belief</td>
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<td>3</td>
<td>Attitude</td>
<td>Selden</td>
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<td>4</td>
<td>Learning and Motivation</td>
<td>Rao, C.J</td>
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<td>5</td>
<td>Value</td>
<td>Shefrin Hersh</td>
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<td>6</td>
<td>Friends</td>
<td>Shilpa Y.S.L</td>
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<td>7</td>
<td>Work Place</td>
<td>Blume, M.E., and I. Friend</td>
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<td>8</td>
<td>Media</td>
<td>Kim, K.A., and John R. Nofsinger.</td>
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<td>9</td>
<td>Professionals’ Advice</td>
<td>Tapia and Yermo</td>
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<td>10</td>
<td>Age</td>
<td>Samuelson</td>
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<td>11</td>
<td>Family</td>
<td>Mehrotra and Torges</td>
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<td>12</td>
<td>Locus of Control</td>
<td>Kasilingam R</td>
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<td>13</td>
<td>Income</td>
<td>Sita.L.Y.</td>
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<td>14</td>
<td>Attitude to Risk</td>
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<td>Awareness</td>
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<td>18</td>
<td>Technology</td>
<td>Rao.Y.K</td>
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PART-II

2.3 LITERATURE REVIEW ON EQUITY INVESTMENT BY WOMEN

In this part an attempt is made to review the literature on earlier research on equity investment by women. It is found that, the research on equity investment by women is very less and most of the research is done while comparing the differences in equity investment strategies of women and men investors.

Johnson & Powell (1994) explore differences in the decisions taken by individuals with managerial education. They find that males and females in this subpopulation display similar risk propensity while investing on equity oriented securities. Although this finding cannot be generalized to the total population, it may indicate that educational background plays an important role in offsetting gender differences in risk taking. In a more general context, based on the Panel Study of Income Dynamics, Haliassos & Bertaut (1995) find that sex has no effect on an equity investor’s decision to hold stocks. Also the results of a recent study by Keller & Siegrist (2006) based on a representative survey of private households in Switzerland show that females have the same willingness to invest in stocks as males. Nonetheless, the above mentioned literature is significantly outnumbered by studies claiming that gender matters. It is argued that female investors are less willing to hold risky assets and, conditional on decision to hold them, invest a smaller share of their wealth into these assets than their male counterparts. One of the early studies representing this view is conducted by Hinz et al. (1996). Using
data on investment decisions of 500 participants of a defined contribution plan in the USA, they find that men are more likely to hold risky assets than women and that the percentage of wealth invested by men in these assets is higher than that invested by women.

Similar evidence is provided by Animisha (2008), who show that Indian males invest a higher fraction of their financial wealth in stocks, while women prefer safer assets such as Gold and saving accounts. Hemalatha & Padmaja (2009) found that Indian women are investing less on equity shares and more on Gold. According to them, the reason for investing on equity shares is a purely investment decision, but while investing on gold, Indian women tend to think more on social recognition than as an investment product.

In another study conducted by Sumathi .N (2011) on the investment psychology of Indian women investors, she made the following observations.

1. Most of the Indian women are investing on either Public Sector Enterprise equity shares or the companies in which, herself of her family members are working.
2. Some of them are investing on Equity Linked Saving Schemes (ELSS) to get tax exemption as their first priority and wealth generation as second priority.
3. Most of the Indian working women are not investing on equity as they feel that they do not have the required knowledge to understand the equity markets or due to discouragement by family members, though they are interested in investing on equity-oriented securities.


Numerous experimental studies are consonant with literature that builds upon survey data. Powell & Ansic (1997), for instance, find that men have a significantly higher preference for risk than women: males prefer “riskier” investment strategies in order to achieve the highest gains, while women select “safer” strategies that allow them avoiding the worst possible losses. Olsen & Cox (2001), who investigate the gender differences for professionally trained investors, find that women weigh risk attributes, such as possibility of loss and uncertainty, more heavily than men. Female investors also tend to emphasize risk reduction more than their male colleagues. Consonant with these findings, Dwyer et al. (2002) and Niessen & Ruenzi (2007) show that, for managers of US mutual funds, gender differences are significant even when educational background and work experience are comparable. Finally, Fellner & Maciejovsky (2007) find that
women prefer less volatile investments and exhibit lower market activity, e.g. they submit fewer offers and engage less often in trades.

As an explanation for gender differences in observed investment behavior, it is commonly suggested that females are by nature more risk averse than males. This conjecture is supported by a number of studies that investigate the differences between the two gender groups with respect to individual specific attitudes towards risk taking. Jianakoplos & Bernasek (1998) analyze data on respondents’ self-assessed tolerance towards investment risk and find that women perceive themselves as less inclined to risk-taking than men. Also Donkers & van Soest (1999), who use a survey of Dutch households containing questions on perceived risk aversion, find that being a women significantly increases the degree of risk aversion. Similar evidence is found in experimental lotteries by Hartog et al. (2002), who deduce individuals’ Arrow-Pratt measure of risk aversion.

Two more studies provide evidence on gender differences in individual risk preferences based on large surveys of private households. One of the studies is conducted by Dohmen et al. (2006) who use data of the German Socioeconomic Panel (SOEP), another is done by Perrin (2008), who surveys a large sample of Swiss households. Both studies find that being a man is positively correlated with the willingness to take risks in financial matters.
Contrary to the many of the earlier studies, Kennedy (2011) stated in his research that risk bearing capacity of American women is increasing due to their growing confidence on money management. This increase in risk bearing capacity among working women is not confined to only USA. Even in India also the similar observation is made by National Council for Applied Economic Research survey of Indian investors. (NCAER Investor Survey 2011)