CHAPTER II
REVIEW OF PREVIOUS STUDIES

2.1 Introduction

A survey of related studies was undertaken by the researcher to get an insight into the work that has already been done in this field of investigation and also to get suggestions regarding the ways and means for the collection of relevant data and interpretation of results.

2.2 Review of literature

Risk averse

The market actor makes decisions according to the axioms of expected utility theory. According to the expected utility theory, a person is risk-averse and the utility function is concave. Prices are set by rational investors and consequently rationality-based equilibrium is achieved. In this equilibrium, securities are priced according to the efficient market hypothesis (EMH). According to the EMH, security prices incorporate all available information and prices can be regarded as optimal estimates of true fundamental values at all times (Barberis and Thaler, 2003).¹
Singh (1986) disclosed the basic rules for selecting the company to invest in. She opined that understanding and measuring return and risk is fundamental to the investment process. According to her, most investors are “risk-averse.” To have a higher return, the investor has to face greater risks. She concludes that risk is fundamental to the process of investment. Every investor should have an understanding of the various pitfalls of investments. The investor should carefully analyse the financial statements with special reference to solvency, profitability, EPS, and efficiency of the company.

Mossin (1966) making a number of assumptions has extended the Markowitz mean variance framework to develop a relation for expected return. Given that investors are risk-averse, it seems intuitively sensible that high-risk stocks should have high expected returns. The work of Sharpe, Lintner and Mossin has resulted in the capital asset pricing model (CAPM). The CAPM model provides a simplified device by comparing each security’s return with a single yardstick, the return on the market portfolio. This device is the beta (β) coefficient, thus the CAPM is a single-factor model depending only upon the security market. The model is founded on the assumption that the market is efficient and investors measure returns and risk by means and variances.
It is possible for a range of investments in both individual stocks and portfolios to be plotted in terms of mean-variance characteristics. Given that investors prefer higher expected returns and lower risk, portfolios which are efficient should dominate those that are inefficient. The competing model of CAPM is a three-factor model of Fama and French (1992). Both are linear regression-based models used for the calculation of expected returns.

**Gambling**

EMH is based on the notion that investors behave rationally, maximize expected utility accurately and process all available information. Rational prices reflect only utilitarian characteristics such as risk and do not value expressive characteristics such as sentiments. Investors evaluate gambles according to the utility framework. Stock prices approximately describe random walk through time. The price changes are unpredictable. Due to the fact that all information is contained in stock prices, it is impossible to make an above-average profit and beat the market over time without taking excess risk. Implicitly, excessive trading is not anticipated in an efficient market (Shiller, 1998).

Losses and disadvantages have greater impact on preferences than gains and advantages (Kahneman and Tversky, 1991). Losses are weighted about twice as heavily as gains—losing $1 is about twice as painful as the pleasure of gaining $1.
This can also be expressed as the phenomena in which people will tend to gamble in losses, i.e., investors will tend to hold on to losing positions in the hope that prices will eventually recover.

**Demographic Factors**

Shanmugsundaram and Balakrishnan (2011)\(^7\) found that age, gender, income and education affect investors’ preference and attitudes towards investment decisions.

According to Lin (2011),\(^8\) age has a positive relationship with overconfidence and disposition effect. Residential area and herding have positive association.

Shaikh and Kalkundrikar (2011)\(^9\) argued that the factors influencing investors’ investment decisions are based on various demographic factors like age, gender, marital status, level of income, level of market knowledge, educational qualification and the number of dependents.

Geetha and Ramesh (2012)\(^10\) studied the relevance of demographic factors in investment decisions in Tamil Nadu, India, and claimed that the demographic factors have a significant influence over some of the investment decision elements, while insignificant influence was found on some other elements.
Also, Jain and Mandot (2012)\textsuperscript{11}, studying the impact of demographic factors on investment decision of investors in Rajasthan, concluded that various demographic factors like age, marital status, gender, city, income level, market knowledge, occupations and qualifications have a major impact on investment decision of investors.

According to Eagly and Carli (1981)\textsuperscript{12} females are more likely to follow the herd behaviour as compared to males.

**Behavioural Factors**

Khamis (2011)\textsuperscript{13} investigated individual investors’ stock trading behaviour at the Amman Stock Exchange, Jordan, using the multiple regression technique. They identified four behavioural factors (age, education, accessibility to the internet and interaction between the investor and his/her broker) that influenced investors’ trading decisions. According to the authors, investor’s age, education, and his/her accessibility to the internet had a significant and positive effect on stock trading, while the interaction between the investor and his/her broker, had a highly significant and negative effect.
Wealth maximisation

Obenberger (1994) examined the factors influencing investment behaviour and found that classical wealth maximisation criteria are the most important to investors, even though investors employ diverse criteria when choosing stocks.

Decision-making - factors

According to Cooray (2003) the factors affecting investment decisions were the risk factor, return on investment, liquidity of investment, tax consequences of an investment, inflation and the term of an investment.

Sultana and Pardhasadhi (2012) investigated factors influencing Indian individual equity investors’ decision-making and behaviour. After applying factor analysis, the 40 attributes were reduced to 10 factors, which include wealth maximisation, risk minimisation, brand perception, social responsibility, financial expectation, accounting information, government and media, and economic expectation.

Jain (1992) specified certain tips for buying shares for holding and also for selling shares. He advised the investors to buy shares of a growing company of a growing industry. Buy shares by diversifying in a number of growing companies operating in a different but equally fast growing sector of the economy.
He suggested selling the shares the moment company has or has almost reached the peak of its growth. Also, sell the shares the moment you realise you have made a mistake in the initial selection of the shares. The only option to decide when to buy and sell high priced shares is to identify the individual merit or demerit of each of the shares in the portfolio and arrive at a decision.

Sharma and Gupta (2011)\textsuperscript{18} risk, return, peer influence, recommendation of financial advisors and market trends as the factors that affect investment decisions.

Rashid and Nishat (2009)\textsuperscript{19} found that in Bangladesh, the most influencing factors on investors’ decisions are efficiency of the company, inflation rate, easy and quick transactions, transaction cost, access to the company and industry information, quality of information and prior knowledge of securities.

Hussain and Nasrin (2012)\textsuperscript{20} in a study of Bangladesh found that the eight most important principal factors influencing retain investors are company-specific attributes/reputation, net asset value, accounting information, trading opportunity, publicity, ownership structure, influence of people and personal finance needs.

In Nigeria, the study by Aregbeyen and Mbadiugha (2011)\textsuperscript{21} found that the ten most influencing factors on investor’s decision in order of importance are: motivation by people who have attained financial security through share investment, future financial security, recommendations by reputable and trusted stock brokers,
management team of the company, awareness of the prospects of investing in shares, composition of the board of directors of companies, recent financial performance of the company, ownership structure of the company, reputable predictions of future increment in share value and bonus payments.

**Rate of return**

Francis (1986) revealed the importance of the rate of return in investments and reviewed the possibility of default and bankruptcy risk. He opined that in an uncertain world, investors cannot predict exactly what rate of return an investment will yield. However, he suggested that investors can formulate a probability distribution of the possible rates of return. He also opined that an investor who purchases corporate securities must face the possibility of default and bankruptcy by the issuer. Financial analysts can foresee bankruptcy. He disclosed some easily observable warnings of a firm’s failure, which could be noticed by the investors to avoid such a risk.

**Financial Risk minimization**

Scott and Edward (1990) reviewed the important risks of owning common stocks and the ways to minimise these risks. They commented that the severity of financial risk depends on how heavily a business relies on debt. Financial risk is relatively easy to minimize if an investor sticks to the common stocks of companies
that employ small amounts of debt. They suggested that a relatively easy way to ensure some degree of liquidity is to restrict investment in stocks having a history of adequate trading volume. Investors concerned about business risk can reduce it by selecting common stocks of firms that are diversified in several unrelated industries.

Mandell (1992)\textsuperscript{24} reviewed the nature of market risk, which according to him is very much “global.” He revealed that certain risks are so global that they affect the entire investment market. Even the stocks and bonds of the well-managed companies face market risk. He concluded that market risk is influenced by factors that cannot be predicted accurately like economic conditions, political events, mass psychological factors, etc. Market risk is the systemic risk that affects all securities simultaneously and it cannot be reduced through diversification.

**Securities market**

Randal (1992)\textsuperscript{25} offered to investors the underlying principles of winning on the securities market. He emphasised on a long-term vision and a plan to reach the goals. He advised the investors that to be successful, they should never be pessimists. He revealed that though there has been a major economic crisis almost every year, it remains true that patient investors have consistently made money in the equities market. He concluded that investing in the stock market should be an unemotional endeavour and suggested that investors should own a stock if they believe it would perform well.
Speculation in stock market

Gupta (1992) revealed the findings of his study that there is existence of wild speculation in the Indian stock market. The over-speculative character of the Indian stock market is reflected in extremely high concentration of market activity in a handful of shares to the neglect of the remaining shares and absolutely high trading velocities of the speculative counters.

He opined that, short-term speculation, if excessive, could lead to “artificial price.” An artificial price is one which is not justified by prospective earnings, dividends, financial strength and assets or which is brought about by speculators through rumours, manipulations, etc. He concluded that such artificial prices are bound to crash sometime or other as history has repeated and proved.

Uncertainty

Kahneman and Tversky (1992) found that under conditions of uncertainty, human decisions depart from those predicted by standard finance theory. Due to limited cognitive capacity, investors cannot analyse data optimally. Human cognition has many irrational components even when trying to make rational decisions.
Overconfidence

Schaefer et al. (2004) assessed the relationship between personality traits and overconfidence. A cognitive task was designed to assess the impact of personality type on the overconfidence. Results indicated that there is a positive relationship between extroversion and overconfidence; however, openness leads to confidence but not overconfidence.

Zaiane and Abaoub (2011) investigated the overconfidence bias and the factors that influence the overconfidence in Tunisian stock market. Data was collected through questionnaires, and 150 investors were selected as a sample in the Tunisian market. For the data analysis, correlation was used as a statistical technique. Results showed that the Tunisian investors were overconfident. While age and income were not related to overconfidence, gender is a determinant of overconfidence, i.e., men show overconfidence while making investment decisions as compared to women.

Jamshidinavid et al. (2012) investigated the impact of the demographic and personality traits on the financial behaviour biases in Tehran stock exchange in 2011. A sample size of 215 people was chosen based on simple random sampling, and the data was analysed using structural equation modelling through AMOS 6 software. Results indicated that extroversion has a positive influence on confidence.
Neuroticism is positively and significantly related with herding and disposition effect. Openness has a positive and significant relationship with herding and overconfidence. Agreeableness has a positive relationship with herding. Conscientiousness has a positive relationship with overconfidence and disposition effect. Age has a negative relationship with herding. High confidence has a positive relationship with the education level.

Estesa and Hosseinib (1988)\(^3\) examined the relationship between demographics and level of confidence in the investment decision. An experiment was conducted and 1395 individuals participated in the experiment nationwide. Data was analysed through regression analysis. The findings of the study showed that males are more confident in their investment decision than females. And education is also significantly related with the confidence level.

Vasakarla and Sharma (2013)\(^3\) investigated the influence of gender on risk-taking and overconfidence in making investment decision. Data was collected from 168 respondents through questionnaire. Chi-square was used as data analysis technique in SPSS. It was found that gender is not significantly related with risk-taking.

Bashir et al. (2013)\(^3\) conducted a study, to analyse the relationship between personality traits, demographics and level of confidence. Questionnaire is used to collect data from a sample of 100 employees and data is analysed using the
correlation regression and chi-square test of association. Results showed that all personality traits (conscientiousness, emotional stability, agreeableness and openness to experience) are correlated with overconfidence. Regression results showed that there is no linear relationship between personality traits and confidence level.

Zaidi and Tauni (2012) explored the relationship between investor’s demographics, personality traits and overconfidence bias in the Lahore stock exchange. Data was collected from a sample size of 200 investors randomly using questionnaire survey method. Results showed that extroversion, agreeableness and consciousness have a positive relationship with overconfidence bias while neuroticism has negative relationship with overconfidence. The results also indicated that education level and age do not have a significant relationship with overconfidence bias while there is a positive association between overconfidence bias and investment experience.

**Herding behavior**

Baddeley et al. (2010) identified the determinants of herding behaviour and the impact of mass decisions on individual’s decision whether to buy or not buy a stock. Experimental analysis and fixed effect statistical techniques were used to identify the individual’s tendencies to follow the herd decision and the impact of herd decision on the individual investor’s decision respectively. The results
indicated that financial decisions of individuals are influenced by the herd decisions and herding behaviour is not homogeneous among all individuals but varies by age, gender and across the personality types.

Schaefer et al. (2004)\textsuperscript{36} concluded that all individuals do not have similar herding behaviour, but that this behaviour varies with gender and age. Gender has a negative association with overconfidence.

Menkhoff et al. (2006)\textsuperscript{37} identified that people who do not have a college degree are more prone to herding but evidence in gender is not significant.

Lin (2012)\textsuperscript{38} examined the relationship among the investor’s types, risk tolerance and herding biases. The survey was conducted on 389 voluntary investors for the purpose of checking the role of risk tolerance between investor types and herding biases. The study used structural equation modelling (SEM) for analysis and demining the effects of these factors using the LISREL 8.71 Statistic Package as well as AMOS. These results show that the “impetuous” investor type has positive relation with herding behaviour and have high risk tolerance. The risk tolerance mediates between the hearing behaviours as well as confidence level.

**Disposition effect**

Tehrani and Gharehkoolchian (2012)\textsuperscript{39} identified the determinants of disposition effect in the stock holders. Data was collected from 169 investors in
Tehran stock exchange through questionnaires. One way ANOVA, one-sample *t*-test, two-sample tests and multiple regressions were used as techniques for data analysis. Results indicated that participant’s education level and gender are the determinants of disposition effect.

Da Costa et al. (2008)\textsuperscript{40} found that disposition effect in males is stronger as compared to females. Results of many empirical studies are consistent with the belief that males are more overconfident than females.

**Personality traits**

Bashir et al. (2013)\textsuperscript{41} found that all personality traits (conscientiousness, emotional stability, agreeableness and openness to experience) are correlated with overconfidence.

Barber and Odean (1999)\textsuperscript{42} have shown that investors who have the trait of openness buy and sell stock frequently because of the overconfidence.

**Neuroticism**

Jamshidinavid et al. (2012)\textsuperscript{43} found that neuroticism is positively and significantly related with herding and disposition effect. Openness has a positive and significant relationship with herding and overconfidence. Agreeableness has a positive relationship with herding. Conscientiousness has a positive relationship with overconfidence and disposition effect.
Individual behavior

Owen (2002) contends that people are irrational and make decisions for many reasons, few of which involve a judicious analysis of available data. Further, individual behaviour dwells on the fact that people fall into psychological traps including overconfidence, anchoring and adjustment, improper framing, irrational commitment escalation and the confirmation trap.

Psychological effect

Horvath and Zuckerman (1993) suggest that one’s biological, demographic and socio-economic characteristics together with their psychological make-up affects one’s tolerance level. The extent of an investor’s ability to tolerate uncertainties of returns is referred to as risk tolerance level. Investors react differently depending on the news that is released. The magnitude of investor reaction is determined by the disparity between expectations and the news that is released.

Speculation and investment

Barber and Odean (2000) observe that overconfidence can generate high levels of speculation as overconfident investors believe that their interpretation of available data is superior to everyone else’s and they invest accordingly.
Loss aversion

Bodie et al. (2000)\textsuperscript{47} have argued that investor behaviour is sometimes myopic and short-sighted in that it ignores everything that might happen after the end of a single period and therefore plans for one identical holding period. Myopic loss aversion explanation rests on two behavioural principles: loss aversion and mental accounting. In loss aversion, people tend to be more sensitive to decreases in their wealth than increases. This can help explain the tendency of investors to hold on to loss-making stocks while selling winning stocks too early. Mental accounting describes a tendency of people to place particular events into different mental accounts based on superficial attributes.

Volatility

Shleifer and Summer (1990)\textsuperscript{48} argue that many uninformed traders will simply follow any trend that they believe exists in share price behaviour and this trend chasing increases the volatility displayed by the market as these investors are unaware of the fundamental prices of the stock they are trading and so are unable to stop trading when the value is reached.

Commitment of funds

According to Nagy and Obenberger (1994),\textsuperscript{49} an investment decision involves a choice on how to commit funds now in anticipation of expected flow of
benefits in the future. It is an exchange of current funds for future benefits. If an individual chooses to invest, he will do so according to the utility theory by selecting a portfolio that maximizes his satisfaction. Axioms of utility theory require investors to be completely rational, able to deal with complex choices, risk-averse and wealth-maximizing.

**Risk and return**

According to Mishkin and Eakins (2007), the great trade-off in investing is between risk and return. Return is the income received on an investment plus any change in market price. An investor can receive returns from stocks when prices of stocks go up over time or when dividends are paid. Risk is the variability of returns from those that are expected. Utility is maximized when an investor gets the highest expected return for any given variance or minimum variance for a given expected return. The first step in making an investment decision is determining the required rate of return. Most investments have expected cash flows and stated market price. One then estimates a value for the investment to determine whether the current market price is consistent with one’s estimated intrinsic value. Models available for valuation of investments include the one-period valuation model in which the present discounted value of the expected cash flows is determined using the required return.
The expected utility model of Neumann and Morgenstern (1953)\textsuperscript{51} is the foundation of the modern investment theories. Financial decisions to invest are guided by the risk-return trade-off. The decision-makers’ choice will depend upon his risk preference. A rational investor would maximize his utility and is therefore expected to accept an investment that would yield the maximum return. The most widely applied in finance is the expected utility model of the choice under risk. Its rationale is based on the axioms underlying expected utility maximization.

The portfolio theory is based on the expected utility model of Neumann and Morgenstern (1953).\textsuperscript{52} According to the theory, the great trade-off in investing is between risk and return. Markowitz (1952)\textsuperscript{53} advocates the wisdom of holding a diversified portfolio. Their mean variance analysis is concerned with how an investor should allocate his wealth among various assets available in the market given that he is a one-period utility maximizer.

An efficient portfolio is one that has maximum expected return for a given variance or minimum variance for a given expected return. By selecting assets with low correlation of returns, it is feasible to reduce overall risk of the portfolio. This occurs because as the returns of one asset go down, they will be offset by the returns of another asset going up. This is more likely to happen with securities from firms in different industries especially if those industries move differently against macroeconomic business cycles.
Rationality

According to Malkiel (2003), in classical economic theory, it is assumed that investors are rational and competent. The theory assumes that investors have the same preference, perfect knowledge of all alternatives and an understanding of the consequences of their decisions. Markets are assumed to be efficient. Neither technical nor fundamental analysis would enable an investor to achieve returns greater than those that could be obtained by holding a randomly selected portfolio of individual stock with comparable risk.

Prospect theory

Kahneman and Tversky (1992) advocated the prospect theory which assumes departures from rationality. The theory assumes that people are loss-averse in which they are more concerned with losses than gains and as a result, a person will assign more significance to avoiding losses than achieving a gain.

Economic factors

Studies carried out in Greece (Merikas et al., 2003) focused on economic factors and individual investor behaviour and dealt specifically with experienced investors while in Pakistan (Kaleem et al., 2009), the focus was the factors affecting financial advisors’ perception of portfolio management.
The arbitrage pricing theory

Ross (1976)\textsuperscript{58} developed an alternative model, the arbitrage pricing theory (APT), in response to the criticisms of CAPM. Whereas CAPM is a single-factor model relating a stock (or portfolio) to the market portfolio alone, APT is a multifactor model which effectively includes CAPM as a special case. In addition to the market portfolio, APT makes use of an advanced statistical technique known as factor analysis to identify other factors that affect the pricing of a security. Like CAPM, APT is founded on the assumption that capital markets are perfect and investors prefer more wealth to less wealth under uncertainty. APT suggests that returns on any given asset will be determined by a series of factors which are common to all assets and factors unique to the given asset. Market equilibrium will occur when it will no longer yield better returns or lower risks arbitrage.

Source of information

Shiller (1998)\textsuperscript{59} defines an efficient market as a market for securities where given the available information, actual prices at every point in time represent very good estimates of intrinsic values. In this market, there are large numbers of rational profit maximizers actively competing with each other trying to predict future market values of individual securities and where important current information is freely available to all participants.
According to Fama (1965), when information arises, the news spreads very quickly and is incorporated into the prices of securities without delay. Neither technical analysis nor fundamental analysis would enable an investor to achieve returns greater than that could be obtained by holding a randomly selected portfolio of individual stocks with comparable risk.

Malkiel (2003) concludes that as a result, prices fully reflect all known information and even uninformed investors buying a diversified portfolio at a tableau of given prices given by the marked will obtain a rate of return as generous as that achieved by experts.

**Optimism and pessimism**

Lo and Mackinlay (1999) have found that short-term serial correlations are not zero and that existence of many moves in the same direction enable them to reject the hypothesis that stock prices behave as a random walk. Whereas in the short run stock returns may show positive serial correlation, evidence from studies show negative serial correlation (return reversal) over longer holding period. Investors are subject to optimism and pessimism that cause prices to deviate systematically from their fundamental values and later exhibit mean reversion. This is consistent with behavioural decision theory where investors are systematically overconfident in their ability to forecast either future stock prices or future corporate earnings.
A number of researchers have found some seasons and days of the week to have unusual returns in the stock markets. Haugen and Lakonishok (1998) document the high January returns in the book entitled *The Incredible January Effect*. There also appear a number of day-of-the-week effects.

Another challenge to EMH is the predictability of future returns from initial dividend yields and market returns from initial price-earnings multiples. Formal statistical tests of the ability of dividend yield to forecast future returns have been conducted by Fama and French (1988). Depending on the forecasts horizon involved, as much as 40% of the variance of future returns for the stock market as a whole can be predicted on the basis of initial dividend yield of the market index. Investors have tended to earn larger long horizon returns when purchasing in the market stocks at relatively low price-earnings multiples.

**Utilitarian theories**

According to Merikas et al. (2003), the investment decision-making process founded on utilitarian theories does not typically address individual investor decision process. The utility-based theories assume that individuals maximize their utility based on classic wealth criteria, making a choice between consumption and investing through time.
Nagy and Obenberger (1994)\textsuperscript{66} have found that competing theories to the utility theory contend that investors maximize geometric mean returns, concentrate on avoiding bad outcome and make investment decisions free from the assumptions about utility functions or probabilities.

**Psychological effects**

Behavioural finance is the study of the influence of psychology on the behaviour of financial practitioners and subsequent effect on markets. It explains why and how markets might be inefficient (Sewell, 2010)\textsuperscript{67}.

Proponents of behavioural finance believe that the key to understanding why investors deviate from expected utility when they evaluate risk lies in understanding psychology (Popescu, 2008)\textsuperscript{68}. Psychology of decision-making explains how people depart from expected utility when they evaluate risk (prospect theory, narrow framing and ambiguity aversion). Psychology of judgment explains how people deviate from Baye’s rule (heuristic-driven biases).

**Prospect theory**

Kahneman and Tversky (1991)\textsuperscript{69}, advocate a new theory known as prospect theory. In this theory, people underweight outcomes that are merely probable in comparison with outcomes that are obtained with certainty—value is assigned to gains and losses rather than to final assets, probabilities are replaced by decision
weights. The theory predicts a distinctive fourfold pattern of risk attitudes: risk aversion for gains of moderate to high probability and losses of low probability and risk seeking for gains of low probability and losses of moderate to high probability.

**Mental accounting**

Moreover, individuals and households use a set of cognitive operations to organize, evaluate and keep track of financial activities (Thaler, 1985). People tend to place their investments into arbitrarily separate mental compartments and react to the investment based on which compartment they are in. This is known as mental accounting. When people are offered a new gamble, they evaluate it in isolation, separately from their other risks. In other words, they act as if they get utility directly from the outcome of the gamble, even if the gamble is just one of many that determine their overall wealth risk.

**Cognitive dissonance**

Festinger, Rieken and Schachter (1956) say that when two simultaneously held cognitions are inconsistent, this will produce a state of cognitive dissonance. Because the experience of dissonance is unpleasant, the person will strive to reduce it by changing his beliefs. Regret is a human tendency to feel pain for having made errors. To avoid the pain of regret, one may alter one’s behaviour in ways that are sometimes irrational.
Regret theory

According to Shefrin and Statman (1985), the regret theory may apparently explain the fact that investors defer selling stocks that have gone down in value and accelerate selling stocks that have gone up in value.

Investors use rules of the thumb called heuristics to process data. It includes the process by which people find out for themselves usually by trial and error.

Heuristics

Kahneman and Tversky (1974) describe three heuristics that are employed when making judgment under uncertainty: representativeness, availability and anchoring and adjustment. Other heuristics include herd behaviour, overconfidence and over- and under-reaction. Representativeness is a heuristic wherein commonality between objects of similar appearance is assumed. People have a tendency of inferring a single observation to be representative of the entire population (stereotyping).

Anchor

Kahneman and Tversky (1974) argue that when forming estimates, people often start with some initial possible arbitrary value and then adjust away from it. In numerical value, when a relevant value (anchor) is available, people make estimate from an initial value (anchor) that is adjusted to yield the final answer. People anchor too much on the initial value and adjustments are typically insufficient.
Volatility

Shleifer and Summer (1990)\textsuperscript{75} argue that many uninformed traders will simply follow any trend that they believe exists in share price behaviour and this trend chasing increases the volatility displayed by the market.

Overreaction

Barberis and Thaler (2003)\textsuperscript{76} Self attribution bias (irrational escalation of commitment) is the tendency of investors to ascribe success to innate aspects (talent or foresight) while more often blaming failure on outside influence (bad luck) rather than their ineptitude. Doing this repeatedly will lead people to the pleasing but erroneous conclusion that they are very talented. Hindsight bias is the tendency of people to believe after an event has occurred that they predicted it before it happened. If people think they predicted the past better than they actually did, they may also believe that they can predict the future better than they actually can. Overreaction is attributed to overconfidence in individual investors which leads to erroneous judgment.

Under reaction

DeBondt and Thaler (1985)\textsuperscript{77} show that people tend to overreact to unexpected news events. Under-reaction has been found to be consistent with conservatism. Conservatism refers to the phenomenon where people mistrust new data and give too much weight to prior probabilities of events in a given situation.
Opinions and Source of information

Basu (1997)\(^78\) opines that people are slow to change their opinions. But earnings reflect bad news more quickly than good news.

Decision making and investor rationality

As Masomi and Ghayekhloo (2011)\(^79\) observed, under the paradigm of traditional financial economics, decision-makers are considered to be rational and utility-maximising.

According to Chandra and Kumar (2008)\(^80\), investor rationality is defined as being reasonable and making decisions that are in their best interest.

Somil (2007)\(^81\) observed that the proponent of the theory of investor assume that an individual makes a decision on the basis of the principles of maximisation, self-interest and consistent choice.

According to Somil (2007)\(^82\), rationality also assumes that an investor has perfect information of his surroundings and makes the decisions with the sole objective of profit maximisation. The reasoning derivable from this principle of rationality is that the capital market must be efficient. Capital market efficiency implies that all information regarding the market is fully and instantaneously reflected in security prices and available to all investors. But most capital markets operate under inefficient conditions, making rational decisions impossible.
**Efficient market hypothesis**

Mahmood et al. (2011)\(^3\) posit that various empirical investigations conducted during 1980 revealed that the market is not efficient as explained by efficient market hypothesis (EMH) of traditional finance theories, because of certain anomalies of the market.

**Rational investor and neo classical theory**

As Somil (2007)\(^4\) recorded, the theory of rational investor has been opposed by neoclassical economic theory which proposes that every investor or every person has limited access to information and an individual is bounded by external constraints and one’s own behaviour.

**Investor behavior and influencing factors**

Al-Tamimi (2005)\(^5\) investigated the factors influencing individual investor behaviour on the United Arab Emirates (UAE) financial markets. The study found that the six most influencing factors in the order of importance were: expected corporate earnings, get rich quick, stock marketability, past performance of the firm’s stock, government holdings and the creation of the organised financial markets. He also found the least influencing factors to be expected losses in other local investments, minimising risk, expected losses in international financial markets, family member opinions and gut feeling on the economy. But the results of
a similar study carried out by Al-Tamimi and Kalli (2009)\textsuperscript{86} on UAE investors indicate that the most influencing factor that affects the investment decision is religious reasons and the least affecting factor is rumors. However, the results of the two studies are acceptable based on the submission by Hossain and Nasrin (2012)\textsuperscript{87} that all possible factors influencing investors’ investment decisions are not constant over time and that they may vary widely from investor to investor for distinct demographic features.

**Earnings per share**

Mojgan and Ali (2011)\textsuperscript{88} studied the effect of earnings per share and cash dividend per share on investor decision-making in the Tehran stock market, and found that the two factors influenced investors’ decision to buy stocks.

**Foreign direct investment and gross domestic product growth**

Azam and Kumar (2011)\textsuperscript{89} examined the factors influencing Pakistan investors’ behaviour on the Karachi Stock Exchange and found that the earning per share, foreign direct investment and gross domestic product growth rate have a significant impact on stock prices.

Merikas et al. (2008)\textsuperscript{90} investigated factors influencing investors’ decision in the Greek Stock Exchange and found that investors principally favour expected corporate earnings, condition of financial statements, and firm status in the industry.
Also Masomi and Ghayekloo (2011), studying the consequences of human behaviours in economies in Tehran market, found that behavioural factors influenced investment decision-making of investors.

**Portfolio management**

Kaleem et al. (2009), in a study of factors affecting financial advisors’ perception in portfolio management in Pakistan, found that age, income, language and orientation of education have a significant role in determining the investment style of an investor.

**Turnaround stocks**

Yasaswy (1993) disclosed how “turnaround stocks” offer big profits to bold investors and also the risks involved in investing in such stocks. Turnaround stocks are stocks with extraordinary potential and are relatively under-priced at a given point of time.

He also revealed that when the economy is in recession and the fundamentals are weak, the stock market, being a barometer of the economy, also tends to be depressed. A depressed stock market is an ideal hunting ground for “bargain hunters,” who are aggressive investors. Sooner or later, recovery takes place which may take a very long time. He concluded that the investors’ watchword is “caution” as he may lose if the turnaround strategy does not work out as anticipated.
Risk control

Damodaran (1993)\textsuperscript{94} evaluated the “Derivatives” especially the “futures” as a tool for short-term risk control. He opined that derivatives have become an indispensable tool for finance managers whose prime objective is to manage or reduce the risk inherent in their portfolios.

He disclosed that the overriding feature of “financial futures” in risk management is that these instruments tend to be most valuable when risk control is needed for a short term, i.e., for a year or less. They tend to be cheapest and easily available for protecting against or benefiting from short-term price. Their low execution costs also make them very suitable for frequent and short-term trading to manage risk more effectively.

Yasaswy (1993)\textsuperscript{95} evaluated the quantum of risks involved in different types of stocks. Defensive stocks are low-risk stocks and hence the returns are relatively slow but steady. Cyclical stocks involve higher risks and hence the rewards are higher when compared to the growth stocks. Growth stocks belong to the medium-risk category and they offer medium returns which are much better than defensive stocks, but less than the cyclical stocks. The market price of growth stocks does fluctuate, sometimes even violently during short periods of boom and bust. He emphasised the financial and organisational strength of growth stocks, which recover soon, though they may hit bad patches once in a way.
Fischer and Jordan (1994) analysed the relation between risk, investor preferences and investor behaviour. The risk return measures on portfolios are the main determinants of an investor’s attitude towards them. Most investors seek more return for additional risk assumed. The conservative investor requires large increase in return for assuming small increases in risk. The more aggressive investor will accept smaller increases in return for large increases in risk. They concluded that the psychology of the stock market is based on how investors form judgements about uncertain future events and how they react to these judgements.

**Derivatives**

Venkataramani (1994) disclosed the uses and dangers of derivatives. The derivative products can lead us to a dangerous position if its full implications are not clearly understood. Being off-balance-sheet in nature, more and more derivative products are traded than the cash market products and they suffer heavily due to their sensitive nature.

He brought to the notice of the investors the “Over the counter product” (OTC) which are traded across the counters of a bank. OTC products (e.g., Options and futures) are tailor-made for the particular need of a customer and serve as a perfect hedge. He emphasised the use of futures as an instrument of hedge, for it is of low cost.
Sivakumar (1994) disclosed new parameters that will help investors identify the best company to invest in. He opined that Economic Value Added (EVA) is more powerful than other conventional tools for investment decision-making like EPS and price–earnings ratio. EVA looks at how capital raised by the company from all sources has been put to use. Higher the EVA, higher are the returns to the shareholder. A company with a higher EVA is likely to show a higher increase in the market price of its shares.

To be effective in comparing companies, he suggested that EVA per share (EVAPS) must be calculated. It indicates the super profit per share that is available to the investor. The higher the EVAPS, the higher is the likely appreciation in the value in future. He also revealed a startling result of EVA calculation of companies in which 200 companies show a negative value addition that includes some blue chip companies in the Indian Stock Market.

**Fundamental analysis**

Pattabhi Raman (1995) emphasised the need for doing fundamental analysis and doing Equity Research (ER) before selecting shares for investment. He opined that the investor should look for value with a margin of safety in relation to price. The margin of safety is the gap between price and value. He revealed that the Indian stock market is an inefficient market because of the absence of good communication network, rampant price rigging, absence of free and instantaneous flow of
information, professional broking and so on. He concluded that in such inefficient market, equity research will produce better results as there will be frequent mismatch between price and value, which provides opportunities to the long-term value-oriented investor. He added that in the Indian stock market, investment returns would improve only through quality equity research.

Banerjee (1998) reviewed Fundamental Analysis and Technical Analysis to analyse the worthiness of the individual securities needed to be acquired for portfolio construction. Fundamental Analysis aims to compare the Intrinsic Value (IV) with the prevailing market price (MP) and to take decisions whether to buy, sell or hold the investments. The fundamentals of the economy, industry and company determine the value of a security. If the IV is greater than the MP, the stock is under-priced and should be purchased.

He observed that Fundamental Analysis could never forecast the MP of a stock at any particular point of time. Technical Analysis removes this weakness. Technical Analysis detects the most appropriate time to buy or sell the stock. It aims to avoid the pitfalls of wrong timing in investment decisions.

**Measuring Risks**

Pujadas (1999) commented on the models of measuring risks. He opined that the models of measuring risk are only as good as the assumptions underlying them. They are not realities, but models.
Commenting on default risk in India, he stated that many defaults are not reported. He is of the opinion that default risks are not handled properly.

Ashutosh Bishnoi (1999) commented on the risk involved in the gilt funds. He argued that the gilt funds are not risk-free and investors should watch out for interest rate and management risk. Whenever one invests, the return on investment represents a risk premium. The general rule is the higher the risk, the higher will be the risk premium. Logically, “zero risk” investments should carry zero or near-zero returns. Obviously, the gilt funds, having an approximately 11% annual return must carry reasonable risk. He also commented on the effect of short-term volatility on the retail investors. The retail investors in any market find it difficult to live through the short-term volatility. He concluded the article by suggesting that in the gilt market, the way to minimise the impact of volatility is to invest more when the market falls.

Lalwani (1999) emphasised the need for risk management in the securities market with particular emphasis on the price risk. He commented that the securities market is a “vicious animal” and there is more than a fair chance that far from improving, the situation could deteriorate.

Shukla (1999) is of the view that the risk can be managed whether it be political, commercial or technological. But “mathematical risk management” has not yet been fully applied across all sectors of companies, the concept is still evolving.
worldwide. She commented that risk management comes into focus due to the uncertainty that prevails in the business environment. It has developed more in countries whose economies are deregulated and privatised, as opposed to economies like India, which are in the process of opening up. However, once risks are identified, they are measured and managed. She concluded that the risk function has to form the basis for decision-making.

Salian (1999) reviewed risk management of the financial sector. She opined that managing financial risk systematically and professionally becomes an important task, however difficult it may be. All risks are to be monitored within reasonable limits. He revealed that tested risk-control systems are today available virtually off the shelf and can be made universally applicable with a little bit of judgement and modification.

While discussing on financial sector reforms introduced in 1992–93 and its effect on risk management, he revealed that reforms would necessarily have transition risks and volatility. And margins will get squeezed and the cushion to absorb risk will get reduced. Then management of risk requires strong risk control. He concluded that if we are able to manage the transition phase of the reforms and upgrade our infrastructure for improved risk management capabilities, we are certain to come out ahead.
Jethmalani (1999) reviewed the existence and measurement of risk involved in investing in corporate securities of shares and debentures. He commended that risk is usually determined, based on the likely variance of returns. It is more difficult to compare risks within the same class of investments. He is of the opinion that the investors accept the risk measurement made by the credit rating agencies, but it was questioned after the Asian crisis. Historically, stocks have been considered the most risky of financial instruments. He revealed that the stocks have always outperformed bonds over the long term.

**Diversification theory**

He also commented on the “diversification theory” concluding that holding a small number of non-correlated stocks can provide adequate risk reduction. A debt-oriented portfolio may reduce short-term uncertainty, but will definitely reduce long-term returns. He argued that the “safe debt-related investments” would never make an investor rich. He also revealed that too many diversifications tend to reduce the chances of big gains, while doing little to reduce risk. Equity investing is risky, if the money will be needed a few months down the line. He concluded his article by commenting that risk is not measurable or quantifiable. But risk is calculated on the basis of historic volatility. Returns are proportional to the risks, and investments should be based on the investors’ ability to bear the risks, he advised.
Risk management

Selvaraj. (1999)\textsuperscript{107} reviewed the strategies for combating risk. A risk management programme should encompass all parts of the organisation and all types of potential risks. Risk management is essential and one should be aware of how to strategically organise an effective programme. He revealed that to safeguard a business against risk, it is necessary to know the various kinds of risks that the business faces. There are risks in everything and the degree of risk may vary.

He recommended certain strategies for combating risks. When risks must be born, prudence lies in the reduction of the area of uncertainty within which a business is operating. He opined that since most of these risks proceed largely from ignorance, they could be avoided by understanding them properly.

Nair and Joseph (2000)\textsuperscript{108} revealed the various risks experienced by investors in corporate securities and the measures adopted for reducing risks. They opined that calculated risk might reduce the intensity of loss of investing in corporate securities. As per their study, many investors are holding shares of those companies that are non-existent at present. They opined that investors may accept risks inherent in equity, but they may not be willing to reconcile to the risk of fraud. Promoters should not be allowed to loot the genuine investors by their fraudulent acts.
They observed that political uncertainties and frequent changes in the government have put the investors in an embarrassing state of mind. They stated that most of the investors follow the policy of “wait and watch” the political situation before making an investment decision.

Joshi (2000) reviewed the utility of derivatives in reducing risks. He opined that derivatives allow an investor to hedge or reduce risks. But they tend to confound investors due to their esoteric nature. The leverage that the derivatives offer to any trader, investor or speculator is tremendous. By the use of derivatives, the volatility of the market also gets neutralized. He concluded the article by stating that while the discerning one stands to gain from it, a person who fails to read it right could land up burning his fingers.

Tips

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. Avery 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.
2.3 Summary

The literature gathered by the researcher to get an insight into the work that has already been done in the field reveals that recently no study has been undertaken in this field in the study area or in India.

References


52. Ibid.


74. Ibid., p.94


82. Somil Ibid., p.28


84. Somil Ibid.pp.126


