CHAPTER – II

REVIEW OF LITERATURE

INTRODUCTION

This chapter deals with the literature review pertaining to factors influencing derivative investment, investors’ perception, investment decision and risk management. The following previous studies were reviewed to identify the research gap related to investors’ perception and investment decision on derivatives market.

2.1 FOREIGN STUDIES

(A) Studies Related to Derivatives Market Conditions

According to Hellwig 1(1980) futures markets tend to destabilize the cash markets because of their higher degree of leverage. For that reason more and more investors without perfect information, actually sometimes uninformed, enter the futures markets and thus the volatility is increased.

Stein 2(1987) develops a model in which prices are determined by the interaction between hedgers and informed speculators. In this model, opening a futures market has two effects; (1). The futures market improves risk sharing and therefore reduces price volatility, and (2) if the speculators observe a noisy but informative signal, the hedgers react to the noise in the speculative trades, producing an increase in volatility.

Froot and Perold 3(1991) extend Kyle’s (1985) model to show that market depth is increased by more rapid dissemination of market-wide information and the presence of market makers in the futures market in addition to the cash market. Ross (1989) assumes that there exists an economy that is devoid of arbitrage and proceeds to provide a condition under which no arbitrage situation will be sustained. It implies that the variance of the price change will be equal to the rate of information flow. The implication of this is that the volatility of the asset price will increase as the rate of information flow increases. Thus, if futures increase
the flow of information, then in the absence of arbitrage opportunity, the volatility of the spot price must change. Overall, the theoretical work on futures listing effects offer no consensus on the size and the direction of the change in volatility. Investors therefore, need to turn to the empirical literature on evidence relating to the volatility effects of listing index futures and options.

Nance et al ⁴(1993) found that derivatives were employed by 104 firms out of the 169 firms in their sample. The results also documented that reducing expected liabilities and transaction costs, as well as agency problems are important factors in affecting firm’s hedging decision. Additionally, they also documented that size is an important determinant for the usage level of derivatives. This is attributed to the information and transaction cost scale of economies in which large companies are more likely to hire managers with expertise in setting up a hedging programme and pay lower transaction costs for hedging instruments.

Geczy et al ⁵(1997) have also provided similar evidence from the top 500 companies in the US in which larger firms with greater growth opportunities and tighter financial constraints are more likely to use currency derivatives, suggesting that firms use derivatives to reduce the volatility of their firm’s cash flows or earnings. They also found a positive link between R&D expenditures and the use of derivatives.

Hathaway ⁶(1998) stated that while there is a perceived similarity of regulatory objective, there is no single preferred model for regulation of derivative markets. Derivatives include a wide range of financial contracts, including forwards, futures, swaps and options. Forward contract is an agreement between two parties calling for delivery of, and payment for, a specified quantity and quality of a commodity at a specified future date. The price may be agreed upon in advance, or determined by formula at the time of delivery or other point in time” (Web 2).
Marlowe 7(2000) opines that the emergence of the derivative market products most notably forwards, futures and options can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. Financial markets, by the very nature can be subject to a very high degree of volatility. Through the use of the products of derivatives it is possible to fully or partially transfer risk of price by looking-in the price of assets. As instruments of risk management, derivative products generally do not influence the fluctuations in the underlying asset prices. However by locking–in the price of assets, the products of derivatives minimize the impact of fluctuation in the price of assets on the profitability and cash flow situation of risk-averse investor.

Stewat Mayhew 8(2000) suggested that although in many cases derivative plays the role of price discovery and price stabilization but as derivatives markets are in growth stage it is difficult to generalize any theory of derivatives impact on cash markets and emphasized the need to further research on issues like whether results in one market are applicable to another market.

Benson and Oliver 9(2004) found that in Australia, derivatives were employed by around 75% of the top 500 Australian listed companies (Nguyen and Faff, 2003, Benson and Oliver, 2004). Benson and Oliver (2004) have presented evidence of the reduction in cash flow volatility and earnings volatility are key motivating factors for these firms to use derivatives.

Micheal C Volker 10(2004) defines derivatives as “financial instruments which can be traded (e.g. options, warrants, rights, futures contract, options on futures, etc.) on various markets. They are called derivatives because they are “derived” from some real, underlying item of value (such as company share or other real, tangible commodity.) A derivative is a tradable “contract”, created by exchangers and dealers. A warrant or option is the simplest
form of derivative. The most common usage relates to the trading of commodities futures and options on futures—where pre-defined contracts relating to a right to buy or sell and underlying commodity or security are traded as opposed to the actual commodity or security itself.” Net present value, arbitrage pricing theory (APT) and capital asset pricing model (CAPM) are few such financial models which are parts of derivatives; corporations use these models in addition with derivatives to achieve success. Thus, as mentioned above by diverse authors, derivatives have various products/variants which play a vital role in the market for any institution; they are Forwards, Futures, Options and Swaps.

Kim \(^{11}(2004)\) examined the relationship between trading activities of the Korea Stock Price Index 200 derivative contracts and their underlying stock market volatility by using Exponential Generalized Autoregressive Conditional Heteroscedasticity (EGARCH) and Autoregressive Integrated Moving Average (ARIMA). He found positive relationship between stock market volatility and derivative volume while the relationship is negative between volatility open interests.

Calado, Garcia and Pereira \(^{12}(2005)\) used data for eight derivative products to study the volatility effect of the initial exchange listing of options and futures on the Portuguese capital market. They did not find significant differences in the unadjusted and adjusted variance and beta for the underlying stocks after the listing of derivatives. However, some of the underlying stocks taken individually have experienced significant increases or decreases in variance after derivatives listing. Finally, they concluded that the introduction of a derivatives market in the Portuguese case has not had the average stabilization effect on risk as detected in other markets.

Heaney and Winata \(^{13}(2005)\) showed that there are significant differences between large and small firms for derivative transactions. Specifically, 3 variables, namely R&D,
director shareholding and market-to-book ratios, are significant in explaining the derivatives usage of large firms but not for small firms in Europe.

Geczy et al. (2007) have proved that several empirical studies support these theories. In their confidential survey, Géczy et al. (2007) highlight the issue of speculation in the use of derivatives. They document that managers can inflate their performance-based compensation by using financial instruments. More importantly, they show that investors are not able to distinguish between speculative and nonspeculative positions based on firms’ disclosures.

Fauver and Naranjo (2010) find that derivatives negatively influence the value of the firms that have high level of agency problems and weak corporate governance system. While these studies shed light on how the use of derivatives in a well-governed firm generates wealth for the shareholders, they magnify the common issue of endogeneity in firm value and hedging researches, as corporate governance itself has a direct impact on firm value.

Allayannis, Lel and Miller (2012) concentrate on monitoring pressure on managers from shareholders and its impact on value implication of derivatives. They find that the use of derivatives increases firm value in well-governed firms, where managers have limited power to exert financial instruments for speculation or self-interests.

(B) Studies Related to Investors’ Perception

Szyszka Adam (2008) in his study on efficient market hypothesis to behavioural finance analyzed how investors psychology changes the vision of financial markets. He found that investors are not always able to correctly value the utility of decision alternatives, cannot update and estimate probability and events and do not diversify properly.

Hoffmann et al. (2011) showed how an investor’s perceptions changed, drove trading and risk taking behaviour, and impacted investment performance during the financial
crisis of 2007-2009. They noted that revisions in return expectations and risk tolerance are positively related to overall market developments, and revisions in risk perceptions are negatively related to overall market developments. Successful investors had higher return expectations and lower risk tolerance, which led them to trade less, take fewer risks, and have lower buy-sell ratios.

(C) Studies Related to Investment Decision

Hoffmann and Post \(^{(19)(2012)}\) found that past returns positively impact investors’ return expectations and risk tolerance, and negatively impact their risk perception. Moreover, Korniotis and Kumar (2011) suggested that older people make better investment choices as they gain more investment knowledge and experience, and questioned whether deterioration of their investment skill with age was largely due to the adverse effects of cognitive ageing. Obviously, the notion of risk tolerance is highly important for investors’ asset allocations. The determinants of risk tolerance are central to the study of behavioural finance. Portfolio theory postulates that risk tolerance is a salient factor in portfolio construction and asset allocation. Risk tolerance, reflecting a person’s attitude towards taking on risk, is a complex psychological concept.

(D) Studies Related to Risk

Jack Clark Francis \(^{(20)(1986)}\) 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 the 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.
Hoyt \textsuperscript{21}(1989) has offered the evidence that larger life insurers are more likely to use derivatives in comparison to smaller life insurers. Additionally, the results also suggested that futures users strongly believe that the financial risk of their companies can be reduced with a proper use of financial futures. Besides, the survey demonstrated that educating management for using financial futures is the most significant obstacle.

2.2 INDIAN STUDIES

(A) Studies Related to Derivatives Market Conditions

Subrahmanyam \textsuperscript{22}(1991) proposed that an uninformed trader will avoid trading with insiders in particular stock by trading in well-diversified index-based derivative instruments which is intact from inside information. If this is the case, the proportion of informed trader in stock market will increase. In order to offset losses from trading with insiders, market maker will increase bid-ask spread and increase stock volatility consequently.

Gupta \textsuperscript{23}(1992) revealed the findings of his study that there is a existence of wild speculation in the Indian derivatives market. The over speculative character of the Indian stock market is reflected in extremely high concentration of the 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.

Sunil Damodar \textsuperscript{24}(1993) 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 over-riding 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, ie, 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.

Jayanth M Thakur J \( ^{25}(2000) \) disclosed the implications of derivatives. The use of derivatives can be for safeguarding oneself against risks. It is widely recognized by all including the SEBI committee on derivatives that a substantial degree of speculative activity in a market for derivatives is necessary and without this, a good market in derivatives cannot function. He revealed that the basic purpose of providing a system for trading in derivatives is to enable a person to protect himself against the risk of fluctuations in the market prices. This is known as hedging. But he argued that it might lead to the bankruptcy of the grantor of an option to buy as he takes a huge risk since the price could go upward to an unlimited extent and still he would have to deliver the shares. This is one of the important reasons that the derivatives are criticised. He concluded the article by suggesting that the objective of the regulator would be to provide protection to all concerned.

Shah \( ^{26}(2000) \) revealed in his study entitled “Displacing a Primary Market” that ever since the first financial futures started trading in 1972, the global industry of derivatives has seen massive growth rates, with trading volumes doubling every three years for the following twenty years. The outstanding derivative position that exists today typically run into many trillions of dollars. In this situation, in the early nineties, we have seen disasters involving a few billion dollars. This is not a large “failure rate”. It is useful to demarcate two categories of derivative contracts: those which are traded at exchange and those which are traded on OTC. OTC derivatives involve many complexities: the price that is negotiated might not be fair price, there is a counter party risk, the transactions are not publicly visible and the complexity of contracts often generates unsavory sales practices and high fees for
intermediaries. In contrast, exchange-traded derivatives are safer in many directions: they ensure that users get a fair price on all trades; there is zero risk of default through the role of clearing corporation and high degree of transparency. A lot of famous disasters have taken place with the OTC derivatives.

Shah \( ^{27}(2000) \) stated in his study entitled “Changing Liquidity in the Indian Equity Market” that derivatives trading started in India in June 2000, after a regulatory process which stretched over more than four years. In July 2001, the equity spot market moved to rolling settlement. Thus, in 2000 and 2001 the Indian Equity market reached the logical conclusion of the reform program, which began in 1994. It is, hence, important to learn about the behaviour of the equity market in this new regime. India’s experience with the launch of equity derivatives market has been extremely positive, by world standards. Amongst all emerging markets, in terms of equity derivatives turnover, NSE is now one of the prominent exchanges. There is an increasing sense that the market of equity derivatives is playing a major role in shaping price discovery.

Shembagaraman \( ^{28}(2003) \) explored the impact of the introduction of derivative trading on cash market volatility using data on stock index futures and options contracts traded on the Nifty Index. The results suggest that futures and options trading has not led to a change in the volatility of the underlying stock index, but the nature of volatility seems to have changed in the post-futures market. The study also examined whether greater futures trading activity in terms of volume and open interest was associated with greater spot market volatility. It found no evidence of any link between trading activity variables in the futures market and spot market volatility.

Dhingra \( ^{29}(2004) \) opines that over the years the markets of derivatives have become multi-trillion dollar markets. Derivatives are financial commitments indexed or linked in some capacity on the value of underlying assets. The bulk of the derivatives traded
internationally are linked to currencies and interest rates. Other derivatives are linked to equity or equity indices. A very small volume of derivatives, compared to the total is indexed to traditional commodities. Small by comparison to other derivatives markets, these commodities-indexed derivatives markets are large compared to the underlying physical commodities markets. It has been a gradual march to glory for derivatives trading in India with current average daily trading volume at more than 10000 crores (CF-Conversion table). Thanks to the market’s growing fancy for stock futures, derivatives trading have finally been able to underline its presence in the Indian capital market. From a meager Rs. 35 crores worth of turnover in June 2000, when derivatives were introduced in phase to Rs. 572,403 crores in December 2003 and reached Rs 600,000 crore in March 2006. There has been a phenomenal rise in the growth of futures and options market. Gradually more derivative products are being offered with the underlying as diverse as commodities, credit, interest rate, currency etc.

Nain\(^{30}(2004)\) shows that the use of foreign exchange (FX) derivatives increases the value of the firm when many of its competitors use FX derivatives. When the use of FX is common in a particular industry, investors identify the risk of currency exchange rates in the industry and perceive the use of FX derivatives as an efficient risk management instrument.

Vipul\(^{31}(2007)\) investigated the change in volatility in Indian Stock market after introduction of derivatives by using extreme value measure of volatility. The result shows that there is reduction in volatility of underlying share after introduction of derivatives attributable to a reduced persistence in previous day’s volatility. However, Nifty shows contradictory pattern of increase in its unconditional GARCH volatility and persistence.

Mallikarjunappa and Afsal\(^{32}(2008)\) used GARCH model to study the implication of the introduction of derivative trading on spot market volatility for S&P CNX Nifty and concluded that price sensitivity to old news is higher during pre future period than post future
period and with introduction of future, market volatility is determined by recent innovation. They also explored the effect of future trading on spot market volatility by using GARCH model on CNX Bank Nifty and found that there is no impact of future trading on spot market volatility. However, impact of new news increased and persistence effect of old news decreased in post future period.

(B) Studies Related to Investors’ Perception

Mitra\(^3\)\(^3\)\(^\text{(2000)}\) commented on the increasing volatility of the bourses, which force an investor to shift away from the equity market. He observed that analysts profess to the investors the virtue of long-term time horizon for the equity investment. But sharp volatility has become a feature of the derivative market worldwide, resulting in frequent, sharp, downward corrections. In this scenario it is proving difficult to convince the investors to think long-term. He opined that the risk of obsolescence and failure have increased enormously in the highly valued economy companies, resulting in huge loss on investments. Investors with long outlook are real losers in this new paradigm of stock market gambles. He argued that, in this scenario, investors are shifting away from the equity market to cash and debt. Long-term vision in the equity investments has given way to short term trading.

Ramanjaneyalu and Hosamani\(^3\)^4\(^\text{(2008)}\) surveyed investors to know their views about derivative segment as there are a lot of myths about derivative segment among participants. Their study revealed that majority of investors (62\%) assume that derivative instruments are meant for speculation. Thus, they are ignorant of the main purpose of derivatives that is risk hedging. More than 50\% investors take derivatives as new complex and hi tech products in reality. These products can be easily used with some orientation. With this study one can understand the need of orientation of common investors towards derivative products as risk hedging tools.
Syed Tabassum Sultana\textsuperscript{35}(2010) concludes that the individual investor still prefers to invest in financial products which give risk free returns. This confirms that Indian investors even if they are of high income, well educated, salaried and independent they are conservative investors who prefer to play safe. The investment product designers can design products which can cater to the investors who are low risk tolerant and use TV as a marketing media as they seem to spend long time watching TVs.

Pasha\textsuperscript{36}(2013) studied retail investors’ perception on financial derivatives in India. It is found that 55 percent of the small investors (respondents) are of the opinion that derivatives are new, complex, and high-tech products. 38 percent of the respondents, who are familiar with derivatives said that derivatives are not new, complex, and high – tech products. And the remaining 7 percent of the investors could not answer the question. This shows that a large number of investors are not familiar with derivatives. The study also found that 62 percent of the small investors are of the opinion that derivatives are purely speculative and highly leveraged instruments.

Tripathi \textsuperscript{37}(2014) examined Investors’ Perception towards Derivative Trading in India. The study shows that Indian investors mainly invest their money in real estates and insurance as they are the options offering great returns with minimum risk associated with it. It is found that more than 75 percent of investors are aware about derivatives, out of which 74 percent have invested in derivatives. Most of the users often invest 10 percent – 20 percent of their total investment in derivatives followed by users who invest 20 percent – 35 percent of their total investment in derivatives. Out of derivative users 76 percent investors have invested in options which offer benefits like risk diversification and promise their investors for great profits with minimum investment. The study concluded that derivative market is dominated by male investor with 72 percent whereas female investors are only 28 percent.
Y. Nagaraju \textsuperscript{38}(2014) studied investors’ perception towards derivative instruments and markets. The study shows that even though most people look at derivatives with fear, they should understand the fact that derivatives help in shifting the risk to the other party. There are many myths that surround derivative market. All these can be done away with proper system in place. Today institutional investors do most of the derivative transactions. It is very important that even individual investors participate in the derivative market actively and reap the benefits from it. After this study it is clear that derivative instruments and derivative markets are not so popular among individual investors. Only educated investors with the help of friends and brokers are investing in this market. The reasons for not investing in this market are lack of knowledge and complex nature of instruments. Some people have a wrong perception about derivatives. The study suggests that measures should be taken to make sure that the investors get a right picture of the instruments and their risk factors.

(C) Studies Related to Investment Decision

Pattabhi Raman \textsuperscript{39}(1995) emphasized 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, the 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 that 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.

Avijit Banerjee \textsuperscript{40}(1998) reviewed Fundamental Analysis and Technical Analysis to analyze the worthiness of the individual securities needed to be acquired for portfolio
construction. The Fundamental Analysis aims to compare the Intrinsic Value (I.V) with the prevailing market price (M.P) 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 I.V is greater than the M.P., the stock is under priced and should be purchased. He observed that the Fundamental Analysis could never forecast the M.P. 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 the investment decisions. He also stated that the modern portfolio literature suggests 'beta' value as the most acceptable measure of risk of scrip. The securities having low should be selected for constructing a portfolio in order to minimize the risks.

**Kumar and Chandra Abhijeet** *(2000)* stated in their article Individual Investor’s Sentiments and Asset Pricing* June 2000, that Individuals often invest in securities based on approximate rule of thumb, not strictly in tune with market conditions. Their emotions drive their trading behaviour, which in turn drives asset (stock) prices. Investors fall prey to their own mistakes and sometimes other’s mistakes, referred to as herd behaviour. Markets are efficient, increasingly proving a theoretical concept as in practice they hardly move efficiently. The purely rational approach is being subsumed by a broader approach based upon the trading sentiments of investors. The present paper documents the role of emotional biases towards investment (or disinvestment) decisions of individuals, which in turn force stock prices to move.

**Giridhari Mohanta and Dr. Sathya Swaroop Debashish** *(2011)* studied that investors invest in different investment avenues for fulfilling financial, social and psychological need. While selecting any financial avenue they also expect other type of benefits like, safety and security, getting periodic return or dividends, high capital gain, secured future, liquidity, easy purchase, tax benefit, meeting future contingency etc.
E. Bennet, Selvam, Eva Ebenezer, Karpagam, and Vanitha 43(2011) concluded that the average value of the five factors, namely, Return on Equity, Quality of Management, Return on Investment, Price to Earnings Ratio and various ratios of the company influenced the decision makers. Further, other five factors, namely, recommendation by analysts, broker and research reports, recommended by friend, family and peer, geographical location of the company and social responsibility were given the lowest priority or which had low influence on the stock selection decision by the retail investors.

(D) Studies Related to Risk

Godse 44(1996) revealed the two separate but simultaneous processes involved in risk management. The first process is determining risk profile and the second relates to the decision making process itself. Deciding risk and profit profile is synonymous with drawing a risk and return picture and involves the following steps.

a) Identifying and prioritizing the inherent investment,

b) Measuring and scoring inherent investment,

c) Establishing standards for each investment component,

d) Evaluating and controlling the quality of managerial controls and

e) Developing risk and return tolerance levels in investment.

He opined that such an elaborate risk management process is relevant in the Indian context. The process would facilitate better understanding of risks and their management.

Ghosh 45(1998) evaluated the various types of risks in relation to the different institutions. He opined that 'Managing risk' has different meanings for banks, financial institutions, and non banking financial companies and manufacturing companies. In the case of manufacturing companies, the risk is traditionally classified as business risk and financial risk. Banks, financial institutions and non banking financial companies are prone to various
types of risks important of which are interest rate risk, market risk, foreign exchange risk, liquidity risk, country and sovereign risk and insolvency risk.

He reviewed VAR (Value at Risk). There are two steps in measuring market risk, the first step is computation of the DEAR, (The Daily Earning at Risk) the second step is the computation of the VAR. He also reviewed the measurement of price sensitivity. He stated that price sensitivity could be measured by modified duration (MD) or by cash flow approach.

Seema Shukla (1999) is of the view that the risk can be managed whether it may 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 world-wide. 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 privatized, 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.

Indu 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 judgment and modification.

Arun 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. 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.

**Pujadas** 49(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.

**Akash Josh** 50(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.

**Lalwani and Gersappa** 51(2000) emphasized the need for a greater consciousness of the risks attached to a fixed income securities portfolio, as the market in a situation of crunch can suddenly turn illiquid. Some concrete steps to put in place a mechanism to evaluate and seek to control the market risk would be necessary. They opined that the pursuit of profits
often leads to a degree of recklessness that conveniently disregards the direct correlation between risk and profits. They concluded that a risk management mechanism could be looked as a tool to instill discipline in any trading activity. It is a surveillance tool for constant monitoring of the market prices so as to forewarn against the unacceptable levels of risk on positions maintained.

Raghavan \(^{52}(2000)\) commented on the risk perceptions and the risk measure parameters. He opined that risk measures are related to the return measurements. While risks can only be contained and cannot be eliminated altogether, there is no doubt that some risks have to be taken to get adequate returns. Returns can be increased or made quicker by taking more financial and operating risks. But the environmental risks typically do not increase returns but serve as constraints on return and risk decisions. He concluded that the process of retaining the levels of risks within the desirable levels must be practiced in the daily operations.

It is observed from the review of literature that previous studies mainly concentrated on market volatility, risk perception, risk measurement and risk management. No previous studies concentrated on investors’ perception and investment decision towards derivatives market in India. Hence, the researcher has identified the research gap and he made a plan to study investors’ perception and investment decision towards derivatives market in India. In addition to that the study has covered factors influencing derivatives investment and risk management. In order to study the factors influencing derivatives investment the following research model is evolved.
Fourteen independent variables are identified to study the factors influencing derivative investments. Hypotheses are identified and proved to identify the impact of independent variables on dependent variables.
References


