

Retail Investors' Perception towards derivatives market with special reference to Gurugram and Rewari

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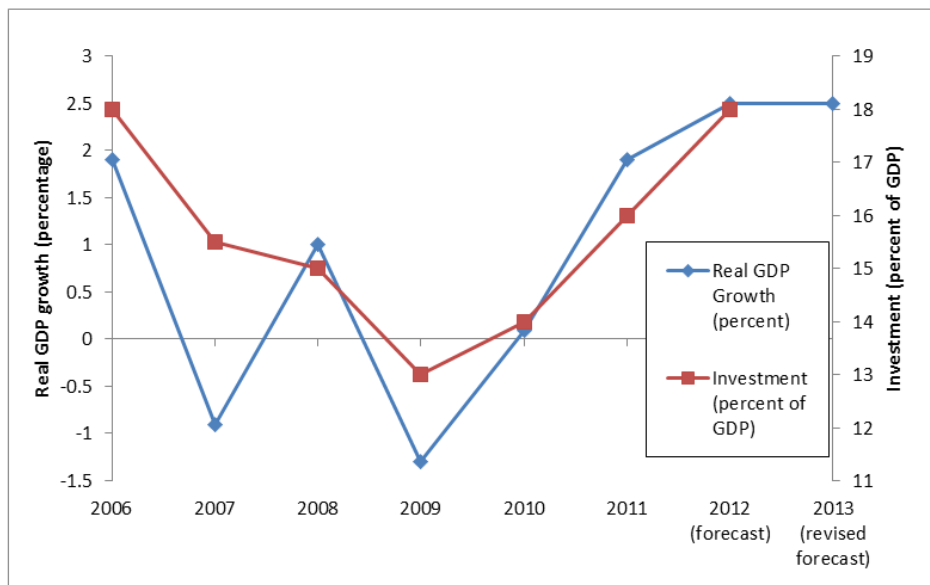
Abstract

The term investment refers to employment of funds on assets with the aim of earning income or capital appreciation. Investment is nothing but allocation of monetary resources to the profit-yielding asset in future. It is sacrifice of certain present value for the uncertain future reward. Investment means sacrifice of current consumption of money value with the hope of gaining something in future. A derivative is a security with a price that is dependent upon or derived from one or more underlying assets. The derivative itself is a contract between two or more parties based upon the value of assets. Its value is determined by fluctuations in the underlying asset. Derivatives either be traded over-the-counter (OTC) or on an exchange. This paper deals with the perception of retail investors' towards derivatives with special reference to Gurugram and Rewari.

Keywords: OCT, Derivatives, Options, Futures, Swaps, Credit derivatives GDP, S&P.

INTRODUCTION

Financial system has a greater role in the development and growth of the economy. It provides liquidity to investment. The financial system has four dimensions: financial Market, financial intuitions, financial instruments and financial services. Financial Market is divided into two parts: Capital market and Money market. Money market is short- term market for the big players like banks, financial intuitions & big corporate house. On other hand, capital market is for both i.e. short term and long term. The main instrument of capital market is equity share, preference share and debentures. There is a greater risk in equity in compare to debt.



Source: NSE Workbook

Fig 1.1: GDP Growth and Investments

A derivative is a security with a price that is dependent upon or derived from one or more underlying assets. The derivative itself is a contract between two or more parties based upon the value of assets. Its value is determined by fluctuations in the underlying asset. Derivatives either be traded over-the-counter (OTC) or on an exchange. OTC derivatives constitute the greater proportion of derivatives in existence and are unregulated, whereas derivatives traded on exchanges are standardized. OTC derivatives generally have greater risk for the counterparty than do standardized derivatives.

Today's sophisticated international markets have helped foster the rapid growth in derivative instruments. In the hands of knowledgeable investors, derivatives can derive profit from followings:

- Changes in interest rates and equity markets around the world
- Currency exchange rate shifts
- Changes in global supply and demand for commodities such as agricultural products, precious and industrial metals, and energy products such as oil and natural gas

Adding some of the wide variety of derivative instruments available to a traditional portfolio of investments can provide global diversification in financial instruments and currencies, help hedge against inflation and deflation, and generate returns that are not correlated with more traditional investments. The two most widely recognized benefits attributed to derivative instruments are price discovery and risk management. These are the following major functions of derivatives.

Price Discovery: Futures market prices depend on a continuous flow of information from around the world and require a high degree of transparency. A broad range of factors (for example climatic conditions, political situations, debt default, refugee displacement, land reclamation and environmental health,) impact supply and demand of assets (commodities in particular) and thus the current and future prices of the underlying asset on which the derivative contract is based. This kind of information and the way people absorb it constantly changes the price of a commodity.

Risk Management: This could be the most important purpose of the derivatives market. Risk management is the process of identifying the desired level of risk, identifying the actual level of risk and altering the latter to equal the former. This process can fall into the categories of hedging and speculation.

They Improve Market Efficiency for the Underlying Asset: For example, investors who want exposure to the S&P 500 can buy an S&P 500 stock index fund or replicate the fund by buying S&P 500 futures and investing in risk-free bonds. Either of these methods will give them exposure to the index without the expense of purchasing all the underlying assets in the S&P 500. If the cost of implementing these two strategies is the same, investors will be neutral as to which they choose. If there is a discrepancy between the prices, investors will sell the richer asset and buy the cheaper one until prices reach equilibrium. In this context, derivatives create market efficiency.

Derivatives Also Help Reduce Market Transaction Costs: Because derivatives are a form of insurance or risk management, the cost of trading in them has to be low or investors will not find it economically sound to purchase such "insurance" for their positions

Price Stabilization: Future: Market ensures a more efficient process of private storage. By insuring against price losses, future markets encourage storage, which is a natural mechanism to stabilize spot prices

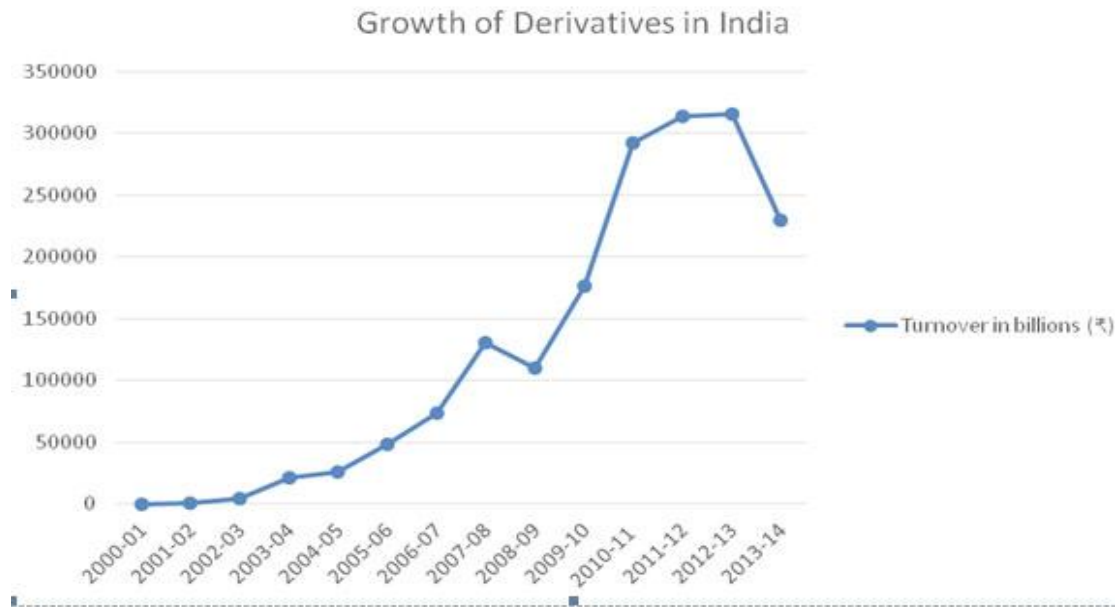
Derivatives trading commenced in India in June 2000 after SEBI granted the final approval to this effect in May 2000. SEBI permitted the derivative segments of two stock exchanges, NSE and BSE, and their clearing house/corporation to commence trading and settlement in approved derivative contracts. The trading in index options commenced in June 2001 and those in options on individual securities commenced in July 2001. Futures contracts on individual stock were launched in November 2001.

Table 1.1 shows the sequence of events in the development of derivative market in India.

Table 1.1
Milestones in the development of Indian derivative market

Date	Progress
14 December 1995	NSE asked SEBI for permission to trade index Futures
18 November 1996	SEBI setup L.C.Gupta Committee to draft a policy framework for index futures.
11 May 1998	L. C. Gupta Committee submitted report.
7 July 1999	RBI gave permission for OTC forward rate agreements (FRAs) and interest rate swaps
24 May 2000	SIMEX chose Nifty for trading futures and options on an Indian index.
25 May 2000	SEBI gave permission to NSE and BSE to do index futures trading.
9 June 2000	Trading of BSE Sensex futures commenced at BSE.
12 June 2000	Trading of Nifty futures commenced at NSE.
31 August 2000	Trading of futures and options on Nifty to commence at SIMEX.
June 2001	Trading of Equity Index Options at NSE
June,4,2001	Trading in BSE SENSEX options commenced
July 2001	Trading of Stock Options at NSE
November 9, 2002	Trading of Single Stock futures at BSE
June 2003	Trading of Interest Rate Futures at NSE
September 13, 2004	Weekly Options at BSE
January 1, 2008	Trading of Mini Sensex at BSE
January 1, 2008	Trading of Mini Index Futures & Options at NSE
August 29,2008	Trading of Currency Futures at NSE
October 2,2008	Trading of Currency Futures at BSE
August 31, 2009	Interest rate derivatives trading commence the NSE
February 2010	Launch of Currency Futures on additional currency pairs
October 28, 2010	Introduction of European style Stock Options
October 29, 2010	Introduction of Currency Options

Source: Compiled from the BSE and NSE reports



Source: researchleap.com

Fig 1.2: Growths of Derivatives in India

Difficulties in Derivatives Market

Recent decades have witness a spectacular shift in the nature of risk in worldwide financial markets and increase instability of many assets classes. As investors are regularly exposed to broad range of dramatic risk, derivatives have become a more important tool in the risk management function of the financial intuitions. However, there is a lot of risk associated with derivatives that makes derivatives more difficult (David R. 2005). The use of risk management tool and technique by business firm in the India is mired by a numbers of barrier and some firms may find it expensive to invest in necessary technology and human resources. Nowadays, shareholders and stakeholders increasingly expect management to be able to identify and manage risk (Jain, Yadav and Rastogi, 2009). Despite growth over the past years, the notional outstanding amounts of derivatives market is small is emerging market economies compared to matured markets. As for the function of derivatives market, academic research infers how emerging derivatives market fulfills their function of risk reduction and redistribution and price discovery and stabilization, compare to what was occurred in the mature markets. (Lien and Zhang 2008)

LITERATURE REVIEW

Shen and Hartarska (2015) estimated the impact of financial derivatives on profitability in agriculture banks in USA, they use call report data from Federal Reserve Bank of Chicago for 2006, 2008 and 2010 to estimated the endogenous switching model to evaluate how profitability of derivatives user and non-user agriculture bank is affected by different risk factor. Result indicated that risk management through financial derivatives in agricultural banks is effective and profitability of derivatives user agriculture banks less affected by credit risk and interest risk in credit period. It is also find that derivatives activities help mitigation the negative effects of credit risk and interest risk before, during and after the 2008 financial crisis and help boosting and positive effects to improve internal management in derivatives using agricultural bank.

Veena & Murthy (2015) the study was undertaken investors perception towards derivatives trading in equity derivatives market in Mysore city. They collect primary data from Angel Broking Pvt Ltd to know about level of awareness and knowledge of investors about trading in equity derivatives market. The sample size is 60 respondents. They found that majority 80% of the respondents are belonging to age group 25 to 40 years, and 60% of respondent are businesspersons', 50% are strongly agreed that they invested money in equity derivatives market to get more tax benefits, 100% respondent agreed that they facing problem of unfair practice of broken in trading equity derivative market.

Velmurugan, Selvam and Nazar (2015) order to preference towards various investment avenues are same across the gender except gold and post office. The study concludes that investment done in various investment avenues with the expectation of capital appreciation and short and long-term earnings.

The basic idea behind investment of all the government, private, self employed and retired person in this study to utilize surplus money in favorable plans so that the money will be rolled back as well as it will give high returns also. In the present scenario the share and gold market is highly uncertain and unpredictable, so the investors should analyse the market cautiously and then make investment decision.

Mohan and Hemalatha (2016) the paper discusses the awareness of government employees on derivatives trading. Data relating to personal profile reveals that out of 100 respondents, 60 % of govt employees are in the Age group of 31-40, 50% male and 50% females. The mean score of awareness on investment in derivatives obtain for male is 11.16 and 11.44 for female. They further conclude that investment are important for the wellbeing of individual as well as for economic development. The derivatives market has been the highest growth among the all financial market segment in recent years. The study reveals that only less number of employees- govt or pvt are investing in derivatives trading compare to other investment avenues like FD, Post office saving funds or LIC. The broker of derivatives market can make Government employees aware of their great opportunity and encourage them to invest in derivatives instrument.

Gakhar (2016) the paper analyses derivatives awareness level of India investors and perception of investors about future of derivatives market in India. The data has been collected for a period of 18 years from January 1, 1997 to February 5, 2015. The study suggests that after the introduction of derivatives in the Indian financial market, volatility of the spot market has reduced. Researcher finds that overall derivatives market has been able to achieve the purpose for which it was established. The investment pattern in saving bank account government securities, pension funds, mutual funds and derivatives investments is also not significantly different for male and females. Awareness about financial markets, experience in derivatives trading, workshop activity and returns expectation are significantly associated with derivatives awareness level of respondents. Gender, nature of employment and educational background also are significantly associated with derivatives awareness level of investor at 10 percent level of significant.

Sarathkumar and Dhandhayuthapani (2016) in analytical study on Indian derivatives market with reference to investors' attitude. They finds that most of the respondents 44% are age group of the 31-40. Majority of the respondents 81.5% are male because they are ready to take risks in their investment but female avoid to take risk. They also finds that the attitude of investors is changing towards derivatives market in India for the last some years and with the introduction of behavioral finance the researcher would like to capture that. Risk averse investors always tries to safe by investing in FD, mutual funds, Government bonds, Insurance and securities.

STATEMENT OF THE PROBLEM

Indian derivative market plays a very important task in the economic development of the nation, so it is essential to mobilization of derivatives instrument towards maximum population of nation. The financial derivatives area is a very wide area; of course, it comes as a part of financial markets. Based on the objective of the topic researcher has covered and confined only to retail investors' participation and their perceptions about the derivatives.

In this regard, researcher will approached retail investors' with questionnaire through stock exchange brokers/dealers in the state of Haryana, based on this what is retail investors' perception towards financial derivatives. Indian middle class is a major segment of our population and people of district like Gurugram (big city) and Rewari (small city) is constitutes a prominent part of it. Because of their misconception regarding derivative trading, their investments are not directed towards the prosperity of our nation by providing funds to more productive purposes. This study is very relevant in this present scenario because it examines the awareness and perception of retail investors on derivative trading.

OBJECTIVE OF THE STUDY

1. To study the investors' perception towards derivatives market.
2. To analyze the relationship between respondents' socio-economic status and their perception towards derivatives market.

HYPOTHESIS

H₀: There is no significant association between the socio-economic status and perception about derivatives market among retail investors

RESEARCH METHODOLOGY

Research Design: Descriptive research design is used for the study. It is descriptive because the main goal of this research is to describe the data and characteristics in detail about what is the investors' perception towards derivatives specifically in Rewari and Gurugram district of Haryana.

Sampling Method: For collecting the data, the researcher used Snow-ball sampling technique in the study. For this, the researcher visited various stock broking companies to identify the real respondents, because not all investors are investing in derivatives. For that seventy-six investors from Rewari district were interacted (through directly or via email/whatsapp) and finally only twenty-seven investors become eligible for the primary survey of the study, out of them only twenty-five is considered for study. Same as four-hundred-eighty-five investors from Gurugram district were interacted (through directly or via email/whatsapp) and finally one-hundred-thirty-three investors become eligible for the primary survey, out of them one hundred respondents is taken into consideration for present study.

Data Collection Method: The study is mainly based on primary data and collects through Structured Questionnaire and Schedule method. Various types of questions are asked from investors regarding socio-economic characteristics like their age, education, occupation, area, marital status and income. The researcher used five point Likert Scale for collect the data regarding awareness level where 1 = Highly Aware, 2 = Aware, 3 = Moderate, 4 = Low and 5 = Don't Aware. Same scale is used for investors' perception, different questions are asked from respondents in their level of agreement, where 1 = Strongly Disagree, 2= Disagree, 3= Neither Disagree nor Agree, 4= Agree and 5= Strongly Agree. For collect information about function of derivatives and best source to get advice, data is collected in ranks form.

Study Period: The time spent on the collect data constitutes the study period. The primary data were collected during Jan 2017 to May 2017. Hence, period from Jan 2017 to May 2017 is utilized for primary survey.

Statistical Tool Applied: Descriptive statistics like mean, standard deviation and cross tabulation analysis with Chi-square test and Fisher's Exact test are used for analyzing the data with the help of MS Excel & SPSS. As the data are choice based and non-parametric in nature, Chi-square test is adopted for testing relationship between factors. The basic condition for using Chi-square test is that "less than twenty percent cells have expected count less than five", whenever this condition is not satisfied researcher used Fisher's Exact statistics instead of Chi-square test.

Limitations:

- The nature of the market is dynamic so as a result the perception of the investors' keeps on varying. Hence, findings of the study would vary from that kind of others study.
- Sample size of the research has been restricted to only 125 respondents of Gurugram and Rewari district only.
- This research has focused on the only individual retail investors' perception towards Equity derivative market.

DATA ANALYSIS AND INTERPRETATION

In order to find out characteristics of derivatives market and status of trading with these characteristics 15 statements characterizing various qualities of derivatives market with five point scale values ranging from 'strongly disagree', 'disagree', 'neither disagree nor agree', 'agree' and 'strongly agree' are incorporated in the questionnaire. The respondent were asked to give their level of agreement on these statements.

Investors Perception about the Status of Derivatives Market

The researcher has asked 15 questions from respondents to find out status of various issues relating to nature and growth of derivative market in India. The mean perception along with 95% confidence intervals is calculated on data of entire sample. As the opinion of the respondents is obtained using five point Likert scale (1 for 'strongly disagree', 2 for 'disagree', 3 for 'neither disagree nor agree' 4 for 'agree' and 5 for 'strongly agree'). The opinion of the entire sample is considered to be 'strongly disagree', 'disagree', 'neither disagree nor agree', 'agree' and 'strongly agree' if the mean perception score of the entire sample is '< 1', '>= 1 to 2', '>= 2 to 3', '>=3 to 4' and '>=4' respectively.

Table 1.2

Perception of investors towards Derivatives Market

Sr. No	Statements	Sum	Mean	Agree/Disagree
1	Derivatives are new complex and high-tech financial product	391	3.12	Agree
2	Derivatives are purely speculative and highly leveraged instrument	383	3.06	Agree
3	Only big institutions/ investors have a purpose for using derivatives	394	3.15	Agree
4	Financial derivatives are simply the latest risk management fashion	366	2.93	Neither agree nor disagree
5	Only risk seeking organization/ investors should use derivatives	360	2.88	Neither agree nor disagree
6	The risk associated with financial derivatives are new and unknown	384	3.07	Agree
7	Derivatives trading is an unsafe and risky	369	2.95	Neither agree nor disagree
8	Derivatives trading increasing systematic risk	381	3.05	Agree
9	Because of the risk associated with derivatives regulators should ban their use	263	1.99	Disagree
10	Derivatives market is less speculative than equity market	362	2.89	Neither agree nor disagree
11	Derivatives market in India is properly regulated	391	3.13	Agree
12	It influences the spot market significantly	418	3.34	Agree
13	Brokerage fee is very low	240	1.92	Disagree
14	Derivatives are necessary for the overall development of capital market	408	3.26	Agree
15	Volatility in derivatives is less then equity market	321	2.60	Neither agree nor disagree

Source: Primary Data, N=125

Table 1.2 exhibits the mean score for all the statements regarding investment perception. The means value is 3.12 for statement 1, 3.06 for statement 2, 3.15 for statement 3, 3.07 for statement 6, 3.05 for statement 8, 3.13 for statement 11, 3.34 for statement 12 and 3.26 for statement 14, are lie in 'agree' range. It means inventors are agree that "Derivatives are new, complex and high- tech financial products", "Derivatives are purely speculative and highly leveraged instruments", "Only big institutions/ Investors have a purpose for using derivatives", "The risk associated with derivatives are new and unknown", "Derivatives trading increase systematic risk", "Derivative market in India is properly regulated", "It influences the spot market significantly" and "Derivatives are necessary for overall development of capital market". The mean score is 2.93 for statement 4, 2.88 for statement 5, 2.95 for statement 7, 2.89 for statement 10 and 2.60 for statement 15, are lie in the "Neither Disagree nor Agree" range. It means investors have a neutral opinion that "Financial derivatives are simply the latest risk management fashion", "Only risk seeking investors should use derivatives", "Derivatives trading are unsafe and risky", "Derivatives market is less speculative then equity market", "Volatility in derivatives market is less than equity market". Finally, the mean is 1.99 for statement 9 and 1.92 for statement 13, it means investors disagree that "Because of the risk associated with derivatives regulators should ban derivatives" and "Brokerage fee is very low".

Investors' Perception about Derivative Market: Analysis with Socio Economic Conditions of Respondents

The Chi square test and Fisher's exact test are applied to ascertain whether the above perception level of respondent is significantly affected by their socio-economic status or not. The data requirement for use of chi square test is, expected frequencies should be at least five for majority (80%) of the cells. In some case, the condition is not satisfied, that is why researcher has used Fisher exact test instead of Chi Square in that particular cases.

District wise Investors' Perception about Characteristics of Derivatives Market

Table 1.3 presents the result of Pearson's Chi Square test and Fisher's Exact test (for each statement) for testing the investors' perception about derivatives as par their district. (Gurugram and Rewari).

Table 1.3: Investors' Perception towards Derivatives Market

District wise Comparison

Sr. No	Statements	Chi Square**		Fisher's Exact Test***		Sig/Not Sig
		Value	P-Value*	Value	P-Value*	
1	Derivatives are new, complex and high- tech financial products.	-	-	11.48	0.016	Sig
2	Derivatives are purely speculative and highly leveraged instruments.	5.84	0.211	-	-	Not Sig
3	Only big institutions/ Investors have a purpose for using derivatives	10.51	0.333	-	-	Not Sig
4	Financial derivatives are simply the latest risk management fashion	2.67	0.613	-	-	Not Sig
5	Only risk seeking investors should use derivatives	-	-	8.74	0.057	Not Sig
6	The risk associated with derivatives are new and unknown	7.34	0.119	-	-	Not Sig
7	Derivatives trading are unsafe and risky.	-	-	15.94	0.002	Sig
8	Derivatives trading increase systematic risk.	-	-	0.527	0.987	Not Sig
9	Because of risk associated with derivatives regulator should ban their use	1.23	0.873	-	-	Not Sig
10	Derivatives market is less speculative then equity market	-	-	6.98	0.125	Not Sig
11	Derivative market in India is properly regulated	23.36	0.001	-	-	Sig
12	It influences the spot market significantly.	-	-	6.07	0.189	Not Sig
13	Brokerage fees are very low.	1.36	0.850	-	-	Not Sig
14	Derivatives are necessary for overall development of capital market	-	-	6.101	0.179	Not Sig
15	Volatility in derivatives market is less than equity market.	-	-	7.64	0.095	Not Sig

Source: Primary Data

Degree of Freedom = 4, N=125

* Less than 20% cell have expected count less than 5

** More than 20% cells have expected count less than 5

Table 1.3 exhibits the chi square/fisher's exact value and p value for statement 2 ($X^2= 5.84$ & p value= 0.211), statement 3 ($X^2= 10.51$ & p value= 0.333), statement 4 ($X^2= 2.613$ & p value= 0.613), statement 5 (FET= 8.479 & p value= 0.57), statement 6 ($X^2= 7.345$ & p value= 0.119), statement 8 (FET= 0.572 & p value= 0.987), statement 9 ($X^2= 1.23$ & p value= 0.873), statement 10 (FET= 6.98 & p value= 0.125), statement 12 (FET= 6.07 & p value = 0.189), statement 13 ($X^2= 1.36$ & p value= 0.850), statement 14 (FET= 6.101 & p value= 0.179) and statement 15 (FET= 7.64 & p value= 0.095). These results show that p values are significant at 5% level of significance for the statements. It means there is no significant association of investors' district on their such opinion like, Derivatives are purely speculative and highly leveraged instruments; Only big institutions/ Investors have a purpose for using derivatives; Financial derivatives are simply the latest risk management fashion; Only risk seeking investors should use derivatives; The risk associated with derivatives are new and unknown; Derivatives trading increase systematic risk; Because of risk associated with derivatives regulator should ban their use; Derivatives market is less speculative than equity market; It influences the spot market significantly; Brokerage fees are very low; Derivatives are necessary for overall development of capital market Volatility in derivatives market is less than equity market. The p value is not significant at 5% level of significance for statement 1 (FET= 11.48 & p value= 0.016), statement 7 (FET= 15.94 & p value= 0.002) and statement 11 ($X^2= 23.36$ & p value = 0.001). That is why researcher don't accept null hypothesis. It means there is a significant difference in investors' perception towards; Derivatives are new, complex and high- tech financial products; Derivatives trading is unsafe and risky and Derivative market in India is properly regulated; with respect to their district.

Income wise Investors' Perception about Characteristics of Derivatives Market

Table 1.4 presents the result of Pearson's Chi Square test and Fisher's Exact test (for each statement) for testing the investors' perception about derivatives market as per their income.

Table 1.4: Investors' Perception towards Derivatives Market - Income wise Comparison

Sr. No.	Statements	Chi Square**		Fisher Exact Test***		Sig/Not-Sig
		Value	P-Value*	Value	P-Value*	
1	Derivatives are new, complex and high- tech financial products.	4.16	0.842	-	-	Not Sig
2	Derivatives are purely speculative and highly leveraged instruments.	8.25	0.411	-	-	Not Sig
3	Only big institutions/ Investors have a purpose for using derivatives	3.85	0.870	-	-	Not Sig
4	Financial derivatives are simply the latest risk management fashion	-	-	7.22	0.512	Not Sig
5	Only risk seeking investors should use derivatives	-	-	11.34	0.172	Not Sig
6	The risk associated with derivatives are new and unknown	7.88	0.448	-	-	Not Sig
7	Derivatives trading are unsafe and risky.	9.44	0.306	-	-	Not Sig
8	Derivatives trading increase systematic risk.	6.84	0.553	-	-	Not Sig
9	Because of risk associated with derivatives regulator should ban their use	14.55	0.068	-	-	Not Sig
10	Derivatives market is less speculative than equity market	8.03	0.431	-	-	Not Sig
11	Derivative market in India is properly regulated	5.51	0.702	-	-	Not Sig
12	It influences the spot market significantly.	3.54	0.396	-	-	Not Sig
13	Brokerage fees are very low.	4.89	0.769	-	-	Not Sig
14	Derivatives are necessary for overall development of capital market	-	-	6.84	0.558	Not Sig
15	Volatility in derivatives market is less than equity market.	5.21	0.753	-	-	Not Sig

Source: Primary Data

Degree of freedom = 8, N=125

* Less than 20% cell have expected count less than 5

** More than 20% cells have expected count less than 5

Table 1.4 exhibits the chi square/fisher's exact value and p value for statement 1 ($X^2= 4.16$ & p value = 0.842), statement 2 ($X^2= 8.25$ & p value= 0.411), statement 3 ($X^2= 3.85$ & p value= 0.870), statement 4 (FET= 7.22 & p value= 0.512), statement 5 (FET= 11.34 & p value = 0.172), statement 6 ($X^2= 7.88$ & p value = 0.448), statement 7 ($X^2= 9.44$ & p value = 0.306), statement 8 ($X^2= 6.84$ & p value = 0.553), statement 9 ($X^2= 14.55$ & p value = 0.068), statement 10 ($X^2= 8.03$ & p value = 0.431), statement 11 ($X^2= 5.51$ & p value = 0.702), statement 12 ($X^2= 3.54$ & p value = 0.396), statement 13 ($X^2= 4.89$ & p value = 0.769), statement 14 (FET= 6.84 & p value = 0.558) and statement 15 ($X^2= 5.21$ & p value = 0.753). These results show that p values are significant at 5% level of significance for each statement. That is why null hypothesis is accepted, it means there is no significant impact of investors' income on their perception like Derivatives are new, risky, speculative & highly leveraged financial products used by institutional investors; Latest risk management fashion with low brokerage fee for big investors; Unsafe for trading and increase systematic risk; Less speculative and less volatile than equity market and necessary for overall development of capital market.

Education wise Investors' Perception about Characteristics of Derivatives Market

Table 1.5 presents the result of Pearson's Chi Square test and Fisher's Exact test (for each statement) for testing the investors' perception about derivatives market as per their education level.

Table 1.5: Investors' Perception towards Derivatives Market- Education wise Comparison

Sr. No.	Statements	Chi Square**		Excel Test***		Sig/Not-Sig
		Value	P-Value*	Value	P-Value*	
1	Derivatives are new, complex and high- tech financial products.	-	-	8.37	0.761	Not Sig
2	Derivatives are purely speculative and highly leveraged instruments.	11.80	0.462	-	-	Not Sig
3	Only big institutions/ Investors have a purpose for using derivatives	-	-	5.46	0.958	Not Sig
4	Financial derivatives are simply the latest risk management fashion	-	-	5.22	0.965	Not Sig
5	Only risk seeking investors should use derivatives	13.58	0.517	-	-	Not Sig
6	The risk associated with derivatives are new and unknown	-	-	8.52	0.744	Not Sig
7	Derivatives trading are unsafe and risky.	22.10	0.368	-	-	Not Sig
8	Derivatives trading increase systematic risk.	-	-	8.15	0.784	Not Sig
9	Because of risk associated with derivatives regulator should ban their use	-	-	5.07	0.969	Not Sig
10	Derivatives market is less speculative than equity market	-	-	6.25	0.919	Not Sig
11	Derivative market in India is properly regulated	-	-	9.69	0.618	Not Sig
12	It influences the spot market significantly.	-	-	11.04	0.504	Not Sig
13	Brokerage fees are very low.	-	-	14.24	0.239	Not Sig
14	Derivatives are necessary for overall development of capital market	11.75	0.957	-	-	Not Sig
15	Volatility in derivatives market is less than equity market.	-	-	12.01	0.418	Not Sig

Source: Primary Data

Degree of Freedom=12, N=125

* Less than 20% cell have expected count less than 5

** More than 20% cells have expected count less than 5

Table 1.5 exhibits the chi square/fisher's exact value and p value for statement 1 (FET= 8.37 & p value = 0.761), statement 2 ($X^2= 11.80$ & p value = 0.462), statement 3 (FET= 5.46 & p value = 0.958), statement 4 (FET= 5.22 & p value = 0.965), statement 5 ($X^2= 13.58$ & p value = 0.517), statement 6 (FET= 8.52 & p value = 0.744), statement 7 ($X^2= 22.10$ & p value = 0.368), statement 8 (FET= 8.15 & p value = 0.784), statement 9 (FET= 5.07 & p value = 0.969), statement 10 (FET= 6.25 & p value = 0.919), statement 11 (FET= 9.69 & p value = 0.618), statement 12 (FET= 11.04 & p value = 0.504), statement 13 (FET=14.24 & p value = 0.239), statement 14 ($X^2= 11.75$ & p value = 0.975) and statement 15 (FET= 12.01 & p value = 0.418). These results show that p values are significant at 5% level of significance for each statement. That is why null hypothesis is accepted, it means there is no significant impact of investors' education on their perceptions like Derivatives are new, risky, speculative & highly leveraged financial products used by institutional investors; Latest risk management fashion with low brokerage fee for big investors; Unsafe for trading and increase systematic risk; Less speculative and less volatile than equity market and necessary for overall development of capital market.

Occupation wise Investors' Perception about Characteristics of Derivatives Market

Table 1.6 presents the result of Pearson's Chi Square test and Fisher's Exact test (for each statement) for testing the investors' perception about derivatives market as per their income. The table exhibits the chi square/fisher's exact value and p value for statement 1 (FET= 11.08 & p value = 0.491), statement 2 (FET= 11.27 & p value = 0.479), statement 3 (FET= 8.84 & p value = .710), statement 4 ($X^2= 14.43$ & p value = 0.310), statement 5 (FET= 10.32 & p value = 0.565), statement 6 ($X^2= 10.58$ & p value = 0.53), statement 8 ($X^2= 4.26$ & p value = 0.983), statement 9 ($X^2= 15.52$ & p value = 0.214), statement 10 ($X^2= 14.43$ & p value = 0.274), statement 11 ($X^2= 13.26$ & p value = 0.356), statement 12 ($X^2= 10.42$ & p value = 0.536), statement 13 ($X^2= 11.19$ & p value = 0.513), statement 14 ($X^2= 18.75$ & p value = 0.095) and statement 15 ($X^2= 10.544$ & p value = 0.568). These results show that p values are significant at 5% level of significance for each statement (except statement 7). That is why null hypothesis is accepted, it means there is no significant impact of investors' occupation on their perception like Derivatives are new, risky, speculative & highly leveraged financial products used by institutional investors; Latest risk management fashion with low brokerage fee for big investors and increase systematic risk; Less speculative and less volatile than equity market and necessary for overall development of capital market. The p value is not significant at 5% level of significance for statement 7 ($X^2= 21.10$ & p value= 0.036). That is why null hypothesis is rejected, it means occupation plays significant role in investors' perception like "Trading in derivatives are unsafe and risky".

Table 1.6: Investors' Perception towards Derivatives Market - Occupation wise Comparison

Sr. No.	Statements	Chi Square**		Excel Test***		Sig /Not-Sig
		Value	P-Value*	Value	P-Value*	
1	Derivatives are new, complex and high- tech financial products.	-	-	11.08	0.491	Not Sig
2	Derivatives are purely speculative and highly leveraged instruments.	-	-	11.27	0.479	Not Sig
3	Only big institutions/ Investors have a purpose for using derivatives	-	-	8.84	0.714	Not Sig
4	Financial derivatives are simply the latest risk management fashion	14.43	0.314	-	-	Not Sig
5	Only risk seeking investors should use derivatives	-	-	10.32	0.565	Not Sig
6	The risk associated with derivatives are new and unknown	10.58	0.537	-	-	Not Sig
7	Derivatives trading are unsafe and risky.	21.10	0.036	-	-	Sig

8	Derivatives trading increase systematic risk.	4.26	0.983	-	-	Not Sig
9	Because of risk associated with derivatives regulator should ban their use	15.52	0.214	-	-	Not Sig
10	Derivatives market is less speculative then equity market	14.43	0.274	-	-	Not Sig
11	Derivative market in India is properly regulated	13.26	0.356	-	-	Not Sig
12	It influences the spot market significantly.	10.42	0.536	-	-	Not Sig
13	Brokerage fees are very low.	11.19	0.513	-	-	Not Sig
14	Derivatives are necessary for overall development of capital market	18.75	0.095	-	-	Not Sig
15	Volatility in derivatives market is less than equity market.	10.54	0.568	-	-	Not Sig

Source: Primary Data

Degree of Freedom = 12, N = 125

* 5% level of significance

** Less than 20% cell have expected count less than 5

***More than 20% cells have expected count less than 5

Age wise Investors' Perception about Characteristics of Derivatives Market

Table 1.7 presents the result of Fisher's Exact test (for each statement) for testing the investors' perception about derivatives market as par their income. Here researcher have applied Fisher's exact test instead of chi square because more than 20% cells have expected frequency less than 5 in table 4.19. The table exhibits fisher's exact vale and p value for statement1 (FET= 6.64 & p value = 0.575), statement 2 (FET= 5.40 & p value = 0.725), statement 3 (FET= 8.35 & p value = 0.387), statement 4 (FET= 4.60 & p value = 0.813), statement 5 (FET= 12.18 & p value = 0.123), statement 6 (FET= 6.75 & p value = 0.559), statement 7 (FET= 8.31 & p value = 0.395), statement 8 (FET= 10.83 & p value = 0.194), statement 9 (FET= 3.91 & p value = 0.882), statement 10 (FET= 5.80 & p value = 0.667), statement 11 (FET= 3.76 & p value = 0.897), statement 12 (FET= 8.53 & p value = 0.369), statement 13 (FET= 1.89 & p value = 0.791), statement 14 (FET= 3.54 & p value = 0.913) and statement 15 (FET= 4.41 & p value = 0.835). These result shows that p values are significant at 5% level of significance for each statements. That is why null hypothesis is accepted, it means there is no significant impact of investors' age on their perception like Derivatives are new, risky, speculative & highly leveraged financial products used by institutional investors; Latest risk management fashion with low brokerage fee for big investors; Unsafe for trading and increase systematic risk; Less speculative and less volatile than equity market and necessary for overall development of capital market.

**Table 1.7: Investors' Perceived Status of Derivatives Market-
Age wise Comparison**

Sr. No.	Statements	Fisher's exact Value**	P- Value*	Significant/Not Significant
1	Derivatives are new, complex and high- tech financial products.	6.64	0.575	Not Significant
2	Derivatives are purely speculative and highly leveraged instruments.	5.40	0.725	Not Significant
3	Only big institutions/ Investors have a purpose for using derivatives	8.36	0.387	Not Significant
4	Financial derivatives are simply the latest risk management fashion	4.60	0.813	Not Significant
5	Only risk seeking investors should use derivatives	12.18	0.123	Not Significant

6	The risk associated with derivatives are new and unknown	6.75	0.559	Not Significant
7	Derivatives trading are unsafe and risky.	8.32	0.395	Not Significant
8	Derivatives trading increase systematic risk.	10.83	0.194	Not Significant
9	Because of risk associated with derivatives regulator should ban their use.	3.92	0.882	Not Significant
10	Derivatives market is less speculative then equity market.	5.81	0.677	Not Significant
11	Derivative market in India is properly regulated.	3.76	0.897	Not Significant
12	It influences the spot market significantly.	8.53	0.369	Not Significant
13	Brokerage fees are very low.	1.89	0.791	Not Significant
14	Derivatives are necessary for overall development of capital market.	3.55	0.913	Not Significant
15	Volatility in derivatives market is less than equity market.	4.41	0.835	Not Significant

Source: Primary Data

Degree of Freedom=8, N=125

*5% level of significance

**More than 20% cells have expected count less than 5

Gender wise Investors' Perception about Characteristics of Derivatives Market

Table 1.8 presents the result of Fisher's Exact test (for each statement) for testing the investors' perception about derivatives market as par their income.

**Table 1.8: Investors' Perceived Status of Derivatives Market-
Gender wise Comparison**

Sr. No.	Statements	Fisher's Exact Value**	P-Value*	Significant/Not Significant
1	Derivatives are new, complex and high- tech financial products.	2.94	0.569	Not Significant
2	Derivatives are purely speculative and highly leveraged instruments.	7.75	0.087.	Not Significant
3	Only big institutions/ Investors have a purpose for using derivatives	.969	0.946	Not Significant
4	Financial derivatives are simply the latest risk management fashion	1.07	0.952	Not Significant
5	Only risk seeking investors should use derivatives	2.51	0.651	Not Significant
6	The risk associated with derivatives are new and unknown	2.04	0.745	Not Significant
7	Derivatives trading are unsafe and risky.	5.26	0.251	Not Significant
8	Derivatives trading increase systematic risk.	5.22	0.249	Not Significant
9	Because of risk associated with derivatives regulator should ban their use.	7.53	0.091	Not Significant
10	Derivatives market is less speculative then equity market.	1.45	0.856	Not Significant

11	Derivative market in India is properly regulated.	2.98	0.568	Not Significant
12	It influences the spot market significantly.	6.23	0.162	Not Significant
13	Brokerage fees are very low.	1.12	0.918	Not Significant
14	Derivatives are necessary for overall development of capital market.	3.21	0.507	Not Significant
15	Volatility in derivatives market is less than equity market.	1.62	0.825	Not Significant

Source: Primary Data

Degree of freedom = 4, N=4

** More than 20% cells have expected count less than 5

*5% level of significance

Here researcher have applied Fisher's exact test instead of chi square as 30% cells have expected frequency less than 5 in table 1.8. Table 1.8 exhibits the chi square/fisher's exact vale and p value for statement1 (FET= 2.94 & p value = 0.569), statement 2 (FET= 7.75 & p value = .087), statement 3 (FET= .969 & p value = 0.946), statement 4 (FET= 1.01 & p value = .952), statement 5 (FET= 2.51 & p value = 0.651), statement 6 (FET= 2.04 & p value = 0.745), statement 7 (FET= 5.26 & p value = 0.251), statement 8 (FET= 5.22 & p value = 0.249), statement 9 (FET= 7.53 & p value = 0.091), statement 10 (FET= 1.45 & p value = 0.856), statement 11 (FET= 2.98 & p value = 0.568), statement 12 (FET= 6.23 & p value = 0.162), statement 13 (FET= 1.12 & p value = .918), statement 14 (FET= 3.21 & p value = 0.507) and statement 15 (FET= 1.62 & p value = 0.825). These result shows that p values are significant at 5% level of significance for each statements. That is why null hypothesis is accepted, it means there is no significant difference in the perception of males and females investors. Like Derivatives are new, risky, speculative & highly leveraged financial products used by institutional investors; Latest risk management fashion with low brokerage fee for big investors; Unsafe for trading and increase systematic risk; Less speculative and less volatile than equity market and necessary for overall development of capital market

CONCLUSION

Investors are agree that derivatives are new, complex, speculative, highly risky and only for the big intuitions, they also give their agreement that derivatives are increased systematic risk, properly regulated, influence capital market and necessary for development of overall capital market. However, investors are disagreeing that brokerage fees is very high in derivatives and regulator should ban their use. In the study, it is found that there is no significant association of investors' perception with their socio-economic variables like age, gender, income and occupation etc.

Al last, it is conclude that now days, investing in stock market involves a lot of risk and uncertainty. Derivatives instruments works as a tools of risk management, and help to the investors to earn maximum returns with given level of risk i.e. minimum risk.

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