

Derivatives Market in India: An Empirical Analysis on Perception of Retail Investors towards Derivatives Market with Reference to Visakhapatnam District

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Abstract – Derivatives market has an important role play in the economic development of a country. The Objective of the study is derivative market problems and prospects. The retail and Intuition Investors occupied a key role in development of derivatives trading in India. Retail Investors are the major participants in equity derivatives have contributed 54% higher when comparing with Intuition investment; this study has been taken to identify the retail investor's perception on derivatives trading. The research design chosen is descriptive. The data was used collected using a questionnaire that consists of close ended questions. Convenient sampling method is employed in Visakhapatnam District. After review the available literature the statically Analysis were performed by using % Analysis, Chi-Square Test and; F-Test.

Key Words: Derivatives Market, Derivatives users, Retail Investors, Perception of retail Investors.

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INTRODUCTION

In India, generally all Derivatives market investor's avenues are perceived to be risky by the investors. But the younger generation investors are willing to invest in derivative market instruments and that too very highly in Derivative segment. Especially among retail Investors, who are major users of derivatives, Availability of liquidity, level of standardization, clearing and settlement of futures and; options transactions are major reasons for their growing use. At the Same time cost associated with trading of derivatives, broker services, volatility levels, regulations of derivatives trading and risk tolerance are the complex problems of retail investors of derivatives. Keeping the above facts the present paper gives an attempt to understand the level of awareness of retail investor's instruments and also find their problems and satisfaction levels in trading of derivatives.

RESEARCH METHODOLOGY:

1. To understand the profile of the retail investors of derivatives in Visakhapatnam District.
2. To analyze the perception of investors regarding the derivatives market.

3. To review the problems and satisfaction levels of retail investors in derivatives market.

LITERATURE REVIEW:

A number of research studies have been carried out on different aspects of risk and investment management, According to Greenspan (1997) "By far the most significant event in finance during the past decades has been the extraordinary development and expansion of Derivatives Market.

Avadhani (2000) Stated that a derivative an innovative financial instrument, emerged to protect against the risks generated in the past as the history of derivatives market is reflected with crises.

Sandeep S., Surendra Y.S. (2008). In their article conducted a survey of brokers in the recently introduced derivatives markets in India to examine the broker's assessment of market activity and their perception of the benefit and costs of derivative Trading,

Das, B., & Mohanty, S (2008). Studied the; behavior of investors in the election of investment vehicles. Empirically; they; found and concluded that different

investment avenues do not provide the same level of satisfaction.

Gupta O.P (2007). In his study “Impact of introduction of Index futures on stock market volatility: The Indian Experience has been examined the potentiality of financial derivatives to alleviate problems connected with the property invested.

Survey of the existing literature indicates that so far no specific study has been carried on to examine the perception of retail investors towards derivatives market. Hence the present study is an attempt in this direction and therefore, aims to enrich the perception of retail investors towards derivatives market with reference to Visakhapatnam District.

METHOD OF DATA COLLECTION:

Empirical research was conducted and the data was collected through survey. Questionnaire is constructed which consists of close ended questions. Sample size is 60 (Traders Trading at Visakhapatnam District) convenient sampling method is employed. After an in depth review literature, the statistical analysis were performed by using % analysis, Standard Deviation and Chi-Square Analysis.

PROGRESS OF DERIVATIVES MARKET:

The derivatives market have growth manifold in the last two decades. India's experience with the equity derivatives market has been extremely positive. The turnover of derivatives on the NSE increased from RS.21,304.08 billion in 2005-2006 to Rs.3,15,330.04 billion in 2015-2016 with an average daily trading value of Rs.83.88 billion in 2005-2006 and increased to Rs.1266.39 billion in 2015-2016 which was about 0.59% greater than the previous years.

DERIVATIVE USERS IN INDIA – REFERENCE TO RETAIL INVESTORS:

Derivative Retail Investors have contributed 54% higher when comparing with Institutional Investment. Higher portion of funds were poured by retail investors. Thus this research was taken up to examine the perception of traders on futures and options trading with special reference to Visakhapatnam District. The Purpose of this paper is to study on trader perception, motivating factors to invest in the options market, the risk level of the trader in respect to their age.

FINDINGS AND DISCUSSION OF DATA ANALYSIS:

TABLE:1 PERCENTAGE METHOD ANALYSIS

1.AGE	UNDER-25	25-35	35-45	45-55	ABOVE-55	TOTAL
	4	24	26	5	1	60
	6.66	40	43.33	8.33	1.67	100
2.EDUCATION	BELOW-SSC	HSC	GRADUATION	PG	PROFESSIONAL/TECHNICAL	TOTAL
	1	2	34	16	7	60
	1.67	3.33	56.66	26.66	11.67	100
3.GENDER	MALE	FEMALE	-	-	-	TOTAL
	93.33	6.67	-	-	-	100
4.MONTHLY INCOME	<10000	10000-20000	20000-30000	30000-40000	ABOVE 40000	TOTAL
	1	35	19	3	2	60
	1.67	58.33	31.67	5	3.33	100
5.OCCUPATION	PUBLIC	PRIVATE	SELF EMPLOYED	BUSINESS	PROFESSIONAL	TOTAL
	20	18	7	8	7	60
	33.33	30	11.67	13.33	16.67	100
6.SOURCES OF INCOME	SALARY	BUSINESS	RENT	AGRICULTURE	OTHERS	TOTAL
	41	15	1	1	2	60
	68.33	25	1.67	1.67	3.33	100
7.PERCENTAGE OF INVESTMENT	0-15%	16-30%	31-45%	46-60%	ABOVE 60%	TOTAL
	6	30	11	8	5	60
	10	50	18.33	13.33	8.34	100
8.PREFERRED DERIVATIVES PRODUCT TRADING	INDEX & STOCK	COMMODITIES	SWAPS	FOREX DERIVATIVES	WARRENTS & OTHERS	TOTAL
	26	13	4	16	1	60
	43.33	21.66	6.66	26.68	1.67	100
9.SOURCES OF MONEY FOR TRADING	SURPLUS MONEY	PART OF INCOME	RETAINED EARNINGS	LOANS	OTHERS	TOTAL
	7	32	6	5	10	60
	11.67	53.33	10	8.33	16.67	100
10.SOURCES OF AWARENESS	MEDIA/MAGAZINE	FRIENDS/RELATIVES	FINANCIAL ADVISORS	STOCK BROKERS	-	TOTAL
	4	32	5	9	-	60
	23.33	53.33	8.33	15	-	100
11.EXPERIENCE IN TRADING	<1 YEAR	1-3 YEARS	4 TO 6 YEARS	7 TO 9 YEARS	ABOVE 9 YEARS	TOTAL
	6	31	17	3	3	60
	10	51.67	28.33	5	5	100
12.FACTORS MOTIVATES TO INVEST	RETURN	LIQUIDITY	SAFETY	LOW RISK	OTHERS	TOTAL
	32	17	6	3	2	60
	53.33	28.34	10	5	3.33	100
13.FREQUENCY OF TRADING	ONCE IN A MONTH	2-3TIMES IN MONTH	1-2 TIMES IN A WEEK	3-5 TIMES IN A WEEK	6-10 TIMES IN A WEEK	TOTAL
	16	16	12	9	6	60
	26.67	26.67	20	15	10	100
14.SOURCES OF STOCK EXCHANGE	NSE	BSE	NCDX	MCX	OTHERS	TOTAL
	36	17	2	4	1	60
	60	28.33	3.33	6.67	1.67	100
15.REASONS FOR CHOOSING PARTICULAR STOCK EXCHANGE	MORE LIQUID MARKET	TRANSEPERENT MARKET	LONGER TRADING HOURS	BETTER BROKER SERVICES	OTHERS	TOTAL
	24	6	13	15	2	60
	40	10	21.67	25	3.33	100
16.OPINION ABOUT RISK	VERY HIGH	HIGH	MODERATE	LOW	VERY LOW	TOTAL
	40	14	3	2	1	60
	66.67	23.33	5	3.33	1.67	100
17.TOOLS TO OVERCOME RISK	BY AVOIDING INVESTMENT	BY EMPLOYING DIVERSIFICATION METHODS	PANIC SELLING	OTHERS	-	TOTAL
	26	26	6	2	-	60
	43.33	43.33	10	3.34	-	100

(SOURCE: SURVEY DATA)

Table 1 represents the following findings using Percentage Analysis tool:

1. It was found that 40% of respondents at the age between 25-35 years followed by 35-45 years with 43.33%.
2. It was found that 56.66% of the respondents did their graduation followed by post-graduation with 26.66%.
3. It was found that most of them 93.33% are male respondents.
4. It was found that 58.33% of the respondents are having Rs.10000-20000 income and; 31.67% of the respondents are having Rs.20000-30000 monthly Income.
5. It was observed that 33.33% of respondents belongs to the category of public limited employees followed by 30% Private employees 11.69% were self-employed, 13.33% are doing their own Business.

6. It was found that the highest percentage of income is 68.33% of total respondents from salary followed by 25% from business and profession. It can be noted that salaried personal and professionals are mostly willing to invest in derivatives.
7. It is found that maximum 50% of the respondents are invested 16.30% from their income in derivative trading and 18.33% of the respondents are invested 31% - 45% from their income in derivative trading.
8. 43.33% of respondents indicated that they use either options or futures, or both for managing portfolios on regular basis. 30% of respondents close with forex derivatives, 21.66% respondents preferred commodities.
9. It was found 53.33% of respondents are got introduced to derivatives market by friends and 23.33% of the respondents are through media/magazines followed by 15% through their stock broker.
10. It was found that 53.33% of respondents preferred to invest in derivatives from their income 11.67% of respondents from their surplus money.
11. It was found that most of 51.67% are having 01-03 years' experience in derivatives trading 28.33% of the respondents are having 04-06 years of experience.
12. It was found that most, 53.33% of the respondents are motivated by the leverage i.e. rate of return in options market and 28.34% of the respondents motivated by liquidity.
13. More than half of the respondents 53.33% were infrequent traders they are trading derivatives 3 to 5 times in a week.
14. It can be noticed that the majority of respondents 60% give first performance of source of stock exchange to trade derivatives is NSE followed by BSE with 28.33%.
15. 40% of respondents selected NSE because more liquidity market and 25% motivate by broker services followed by trading hours with 21.67%.
16. It was found that most of them 66.67% of the respondents opined that there is very high risk associated with trading of derivatives.

17. The study reveals that 43.33% of respondents opined that it is better to avoid investment in risk areas 43.33% investors opined that the risk can be controlled by employing risk diversification methods. Suggested analysis.

Portfolio of Investment:

The Portfolio of financial investment of respondents with reference to their gender is given in table 2. The hypotheses formulated for this purpose were:

(H1): There is no significant relationship between the gender and portfolio of investment.

(H2): There is significant relationship between the gender and portfolio of investment Level of significance=0.05

Table 2- Gender wise classification of Portfolio Investment of Respondents

Gender	Derivatives	Stock & Derivatives	Derivatives & Deposits	Derivatives & Commodities	Derivatives & others	Total
Male	6	14	32	2	4	58
Female	0	0	2	0	0	2
Total	6	14	34	2	4	60

Table 3: Expected Values

Gender	Derivatives	Stock & Derivatives	Derivatives & Deposits	Derivatives & Commodities	Derivatives & Others
Male	6	14	33	2	4
Female	1	1	1	1	1

Table 4 : Chi-Square test concerned with portfolio of Investment

Oi	Ei	Oi-Ei	(Oi-Ei) ²	(Oi-Ei) ² / Ei
6	6	0	0	0
14	14	0	0	0
32	33	-1	1	0.03
2	2	0	0	0
4	4	0	0	0
0	1	-1	1	1
0	1	-1	1	1
2	1	1	1	1
0	1	-1	1	1
0	1	-1	1	1
				5.03

The Table-2. Represents the Observed frequency and Table-3 represents Expected Frequency and the Table-4 represents their calculation. Calculated Value= 5.03. The Degree of freedom = (r-1) (c-1). That is (2-1) (5-1). Therefore Degree of freedom is 4 and the Table Value = 9.488. It results to Calculated Value < Table Value (i.e.) 5.03 < 12.59

Since calculated value is less than table value we accepted the (H1) and rejected alternative hypothesis is (H2). So there is no significant relationship between the gender and category of Investment.

Problems of retail Investors:

There are many problems faced by the respondents while investing in derivatives. These problems are measured with the help of a four point scale and analyzed through F-ratio. The overall attitude towards the problem is also measured with the help of mean score and depicted in table-5. To test whether there exist any difference between different groups of derivative instrument investors about opinion on problems encountered in derivatives trading, the following hypothesis were formulated,

(H1): There is no significant difference between different groups of derivative instrument investors about opinion on problems encountered in derivatives trading.

(H2): There is significant difference between different groups of derivative instrument investors about opinion on problems encountered in derivatives trading.

Table 5: Problems encountered regarding the derivatives trading

Factor	Mean Score	F-Ratio	Results
1.Transaction cost	3.09	3.75*	Significant
2.Trading Hours	0.81	2.02	Insignificant
3.liquidity	0.80	2.03	Insignificant
4.Broker service	3.13	3.70*	Significant
5.Clearing & Settlement	0.92	1.97	Insignificant
6.Level of Volatility	3.10	3.61*	Significant
7.Level of Standardization	0.47	2.15	Insignificant
8.Level of regulation	3.16	3.72*	Significant
9.Product availability	0.44	2.16	Insignificant
10.Impact of Recent Crisis	3.07	3.75*	Significant
11.Risk Tolerance	3.67	3.71*	Significant
12.Tax Treatment	0.40	2.18	Insignificant

Significant at 5 % Level.

The table reveals that majority of the respondents in all derivative product groups are of the view that the transaction cost, broker services, level of volatility, level of regulation, impact of recent crisis and risk tolerance are high serious as their overall mean scores are 3.09,3.13,3.10,3.16,3.07 and 3.67 respectively translate to high serious, More over the comparative

analysis between derivative product holders indicates that the F-value is significant at 5% level of significance in respect of the same factors since the calculated value is greater than table value i.e. 3.06. Hence the opinion of institutional investors from different groups are different about the problems encountered by them towards derivatives trading.

Degree of satisfaction of retail Investors:

The degree of satisfaction towards factors motivated for investment in derivatives are measured at four point scale, The various factors are analyzed and scrutinized at nine variables. The above said variables are rated on a four point scale namely highly satisfactory, satisfactory, and moderately satisfactory and not satisfied which carry 4.3, 2.1, marks respectively. The average score obtained by factors are presented in table. 6.

The variable rated as highly satisfactory are availability of Liquidity and Returns from investment since their mean scores and standard deviation are 3.71& 0.85, 3.49 & 0.79 respectively. According to the scale used to determine the satisfaction level of means, these scores translate to a high satisfaction. The factors of clearing and settlement of futures and options transactions, Fairness of futures and options market, Market data for trading futures and options. Trade Limit and Broker Services as their mean scores are 2.78, 2.74, 2.68, 2.64 and 2.85 these scores translate to satisfactory.

Table 6 Degree of satisfaction towards trading of derivatives products

Factors	Mean score	S.D
Clearing and settlement of future and options transitions	2.78	0.55
Fairness of future and options market	2.74	0.53
Market data for trading futures and options	2.68	0.54
Availability of Liquidity	3.71	0.85
Returns	3.49	0.79
Trade Limit	2.64	0.55
Broker Service	2.85	0.55
Maintaining Process	2.36	0.51
Pricing of Products	2.20	0.50

(Sources: Survey data)

SUGGESTIONS:

1. From the demographic factors it is found most of the investors are of age 25-35 and are mostly public employees, So the institutions dealing in derivatives products can take these factors and develop suitable

marketing activities for them and attract them to invest more in derivatives markets.

2. Also it is found that the friends and relatives are the most influential persons to pull the investors into the derivatives market. So the Institution should develop some referral programmes and rewards for referrals.
3. It is also found that the investors are investing up to 30% of their income on derivative instruments and also develop products which are of less market risk and the credibility of the institution should be briefly explained to the investors.
4. Investors felt that high margin in derivative segment was the main barrier for investing, So the Institutions Should work on this to reduce the margin.

CONCLUSION:

The derivatives have a history of attracting many bright, creative, well-educated people with an entrepreneurial attitude. They often energize others to create new businesses, new products and new employment opportunities, the benefit of which are immense. Finally, derivatives markets help to retail investors to increase their savings and investment in the long-run. Transfer of risk enables market participants to expand their volume of activity.

REFERENCES:

- Alagu Pandian, V. (2013). A Study of investors Preferences towards various investments avenues in dehradun district. *International journal of management and social sciences research*, 4, pp. 58-66.
- Chatrath, B.N. (1995). Does options trading lead to greater cash market volatility?. *Journal of Futures markets*, 15(7), pp. 785-803.
- Das, B., & Mohanty, S. (2008). Mutual Fund vs. Life Insurance: Behavioral Analysis of Retail Investors. *International Journal of Business and Management*, 10, pp. 89-103.
- Gupta, O. P. (2007). Impact of Introduction of Index Futures on Stock Market Volatility: the Indian experience. *APBR*, 3, pp. 67-90.
- Rajaranjan, V. (2003). Investors demo graphics and risk bearing capacity. *Finance India*, 2, pp. 565-576.
- Ramanjaneyulu, N., & Hosmani, A.P. (2010). Financial derivatives and risk management: retail investors view. *Indian journal finance*, 10, pp. 17-29.
- Sandeep, S., & Surendra, Y. S. (2008). Trading of derivatives in Indian stock market a study through brokers perception. *Asian journal of management*, 20, pp. 112-120.
- Sarin, A., & Shastri, K. (1998). The impact of options trading on the market quality of the underlying security: an empirical analysis. *Journal of finance*, 8, pp. 717-732.
- Shaik Abdul Majeed Pasha, (2013). Retail investors' perception on financial derivatives in India *European scientific journal*, 22, pp. 84-92.
- Shanmugasundaram, V. (2011). The impact of behavioral bias of investors in capital Market. *South Asia journal of socio political studies*, 10, pp. 99-102.

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