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AN ANALYTICAL STUDY ON STOCK FUTURES AND OPTIONS DERIVATIVES TRADING IN INDIA

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ABSTRACT **DOI No: 10.36713/epra21067** **Article DOI: https://doi.org/10.36713/epra21067**

This study looks at financial derivatives, specifically options and futures. To protect against changes in the value of fundamental assets including stocks, bonds, commodities, currencies, and stock indexes, derivative tools are used. Since the Indian derivatives market is still relatively new and not well known to all investors, SEBI must take action to raise awareness of this industry. The market price of the underlying asset immediately affects an investor's profit or loss in the cash market, which could lead to significant gains or losses. Onthe other hand, investors can minimize their downside risk and make substantial profits through the derivatives market. Hedging is the primary usage of derivatives. SEBI should think about changing several rules, such as those pertaining to contract size and the participation of Foreign Institutional Investors (Flis) in the derivatives market, in order to promote the expansion of the Indian derivatives industry. All things considered, this study sheds light on the derivatives market.

KEY WORDS: ***Premium, Maturity Time, Strike Price, And Spot Price.***

INTRODUCTION

Derivatives, which get their value from an underlying asset, are crucial financial tools for risk management. These assets may consist of stocks, indexes, bonds, currencies, commodities like bullion, and interest rates. Derivatives are primarily used to protect against possible hazards, enable affordable capital access, and create profit opportunities for a range of market participants, including banks, securities companies, businesses, and individual investors.

In essence, a derivative instrument is an agreement between two parties that specifies particular terms and circumstances, such as the length of the agreement, the factors affecting its valuation, and the notional sum at stake. The way in which the parties exchange payments is determined by these terms. Derivatives have grown and changed significantly in the global financial markets, and as more market players realize how strategically important they are for managing financial risks, their rise is predicted to pick up speed in the future.

Derivatives are frequently used in financial markets for hedging, arbitrage, and speculation due to their adaptability. They are an essential part of contemporary trading and investment methods because of their capacity to reduce the risks brought on by price swings. Derivatives are anticipated to grow increasingly complex as financial technology and regulatory frameworks change, strengthening their place in the financial ecosystem.

OBJECTIVES OF STUDY

The purpose of this study is to examine how futures and options work, including their pricing, trading tactics, and role in risk management. It will offer insights and suggestions to raise investor awareness, better risk management, and improve trading techniques based on the findings.

NEED OF STUDY

Because they facilitate risk management, increase liquidity, and assist investors in navigating regulatory restrictions, derivatives are essential to the financial markets. They guarantee adherence to investment standards while permitting organizations such as pension funds to have exposure to certain assets. Derivatives offer chances for hedging, speculation, and arbitrage while also reducing market volatility by enabling risk transfer. Their significance in contemporary financial strategies is highlighted by their expanding presence in both domestic and foreign markets. Derivatives have a big impact on asset pricing, investment choices, and financial stability as they develop further. They are an essential instrument in today's financial environment because of their dynamic character and capacity to strike a balance between risk and opportunity, which is what drew me to this sector.

SCOPE OF THE STUDY

Derivatives, specifically futures and options in the Indian market, are the subject of this study. To examine trends, trading patterns, and market dynamics, the Interconnected Stock Exchange has been selected as a representative sample. Although the study's goal is to offer insightful information about the Indian derivatives market, it is not all-inclusive, and its conclusions could alter as the market develops. Furthermore, this study just looks at the Indian financial system; it doesn't look at the global derivatives markets like **NASDAQ** or CBOT. This paper acknowledges that more research may be required to add foreign perspectives, but it makes an honest attempt to examine derivatives trading within India given the complexity and constantly shifting nature of financial markets.

RESEARCH METHODOLOGY

Using both primary and secondary data, this study examines the positions of futures buyers and sellers as well as option holders and writers. While secondary data consists of publications, speeches, and reports from the NSE, BSE, and market authorities, primary data is derived from conversations with approved brokers and exchange members. This thorough method guarantees a balanced assessment of the derivatives market.

LIMITATIONS

Financial derivatives, according to some, enrich big institutions while providing little profit to small investors and needlessly complicate the market. Because derivatives entail leveraged positions that have the potential to result in large losses, critics contend that they raise volatility and systemic risk. Because of their complexity and numerous influencing aspects, small investors may find it difficult to comprehend and utilize these products efficiently. Although derivatives aid in risk management, there is ongoing discussion about whether they genuinely assist small investors or are largely used by larger market players.

REVIEW OF LITERATURE

Many studies have examined how financial derivatives, especially futures and options, affect market volatility in both developed and emerging countries. Numerous scholars have investigated whether derivatives, which provide risk management tools, enhance volatility or aid in stabilizing financial markets. There is still conflicting empirical data; some studies indicate that trading in derivatives does not cause market instability, while other studies draw attention to the higher volatility of these products.

Dr. Premalata Shenbagaraman (NSE) carried out a thorough investigation of how trading in futures and options affected the underlying cash market's volatility. Based on international empirical research, her study concluded that while the introduction of derivatives affects market dynamics, it does not always result in market destabilization. Derivatives assist investors hedge against risks by improving price discovery and supplying liquidity, as demonstrated by numerous developed markets, rather than causing undue volatility.

In their study, Antonios Antoniou and Phil Holmes used GARCH methodology to investigate the connection between spot market volatility, information flow, and futures trading. Their study, which concentrated on the FTSE-100 Stock Index Futures, found that futures markets typically show higher levels of volatility than the underlying spot market. The study indicated that although futures trading boosts market activity, it also adds to times of increased volatility. It also highlighted the importance that information dissemination has in affecting price variations in both markets.

R. Dixon and R.K. Bhandari examined how financial derivatives are rapidly growing in the capital markets and how this is affecting national economies, financial institutions, and individual investors. Their analysis brought to light the remarkable rise in derivatives use, which has raised serious regulatory issues. A crucial case study that illustrated the dangers of using derivatives improperly was the 1995 failure of Barings Bank. The study emphasized the necessity of more robust regulatory frameworks to strike a balance between the advantages of derivatives in risk hedging and the potential for systemic dangers. The survey also highlighted the continuous discussion between regulators and financial institutions on how to effectively manage the risks associated with derivatives.

In their research, **Patrick McAllister and Johan R. Mansfield** centered on how investment property portfolio management uses financial derivatives. Their research examined how, since the late 1980s, derivatives have emerged as a crucial component of financial markets, aiding in risk management for investors and manufacturers alike. The study looked at the drawbacks of investing directly in commercial real estate as well as how financial derivatives might reduce a lot of the risks involved. According to the findings, investors can diversify their risk exposure and increase returns by using derivatives, which offer flexibility in portfolio management.

Diverse viewpoints on the function of derivatives in financial markets are offered by the evaluated papers. Some studies contend that derivatives improve market efficiency by enhancing liquidity, price discovery, and risk management, while others contend that they increase volatility. Furthermore, given previous financial crises, the regulatory issues surrounding derivatives continue to be a major topic of discussion. The impact of derivatives markets on investor behavior, financial stability, and regulatory policies will continue to be a critical area of study as these markets grow.

ANALYSIS AND INTERPRETATION

Respondents' Perspectives on the Risk Level Associated with Investment Options in Financial Derivatives:Futures and Options Market

Resnonse		Freauencv	Percent	Valid Percent	Cumulative Percent
Valid	Low	15	4.66%	4.66%	4.66%
	Moderate	25	7.76%	7.76%	12.42%
	High	60	18.63%	18.63%	31.06%
	Very high	222	68.94%	68.94%	100.0%
	Total	322	100.0%	100.0%	

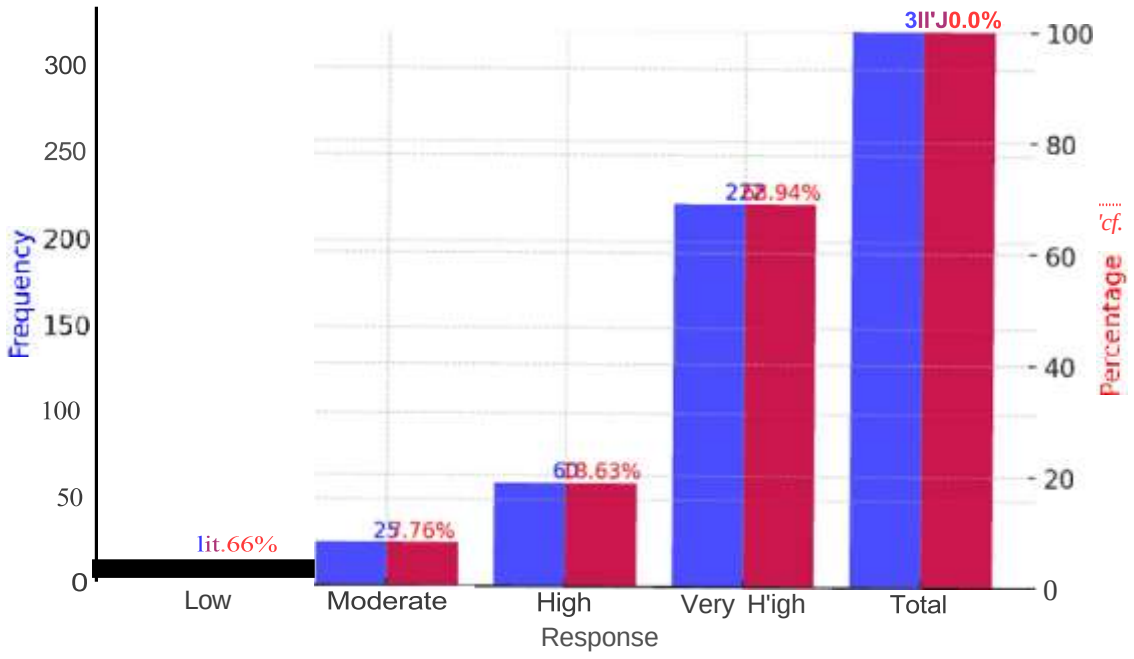
(Source: Data collected through a primary field survey)

Based on primary data gathered through a field survey, the table and accompanying graph offer insights into respondents' assessments of the risk levels related to financial derivatives, particularly the futures and options markets. The results show that a sizable majority of investors 68.94% think that these products are extremely risky. This implies that market players are quite concerned about the risk of financial loss, leverage exposure, and volatility that come with trading derivatives.

Additionally, 18.63% of respondents rated the risk as high, supporting the idea that although derivatives provide opportunities for hedging, there are significant uncertainties associated with them. A smaller portion of investors 7.76% thought the risk level was moderate, suggesting that some are aware of the hazards involved but also appreciate the strategic advantages of derivatives.

The information highlights the widespread risk aversion among investors, which is a reflection of worries about volatile markets, unpredictable prices, and the difficulties of trading futures and options. These findings emphasize the necessity of regulatory actions and investor education in order to reduce risks and boost trust in derivative markets.

Respondents' Perspectives on the Risk Level Associated with Investment Options in Financial Derivatives: Futures and Options Market



(Source: Data collected through a primary field survey)

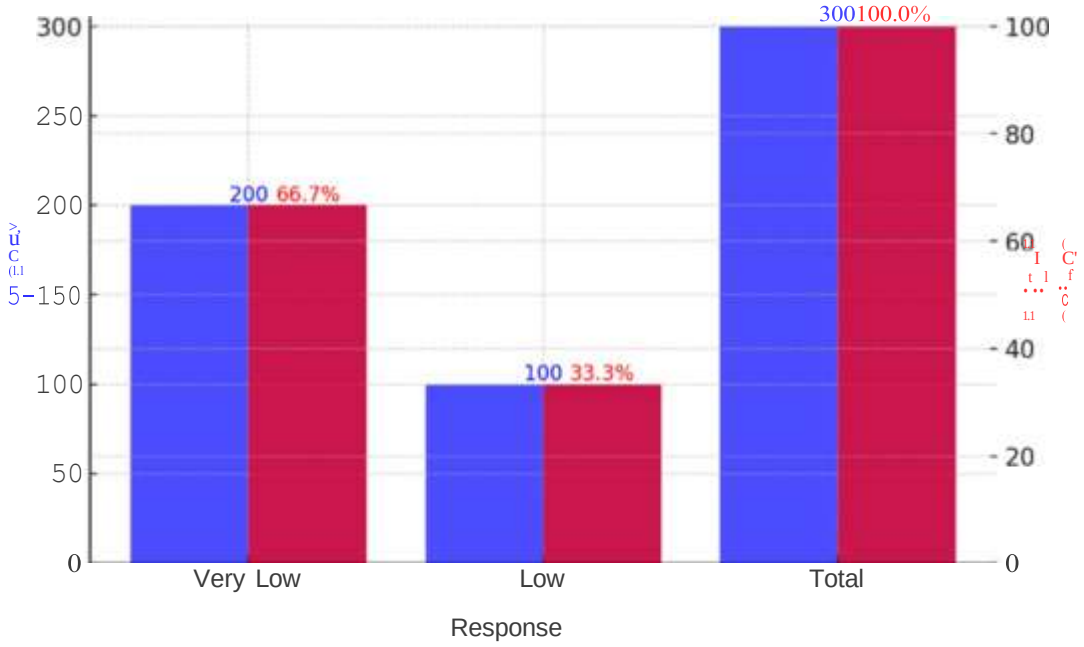
Respondents' Perception of the Risk Level Associated with Investing in Gold.

Response		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Low	200	66.7%	66.7%	66.7%
	Low	100	33.3%	33.3%	100.0%
	Total	300	100.0%	100.0%	

(Source: Data collected through a pnmary field survey)

Based on primary data gathered from a field survey, the table and accompanying graphic show respondents' opinions of the degree of risk involved in gold investing. According to the results, a sizable majority of participants 66.7% think that gold is an extremely low-risk investment choice. This implies that the majority of investors view gold as a reliable and secure asset, most likely as a result of its longstanding standing as a refuge during turbulent economic times. Furthermore, the remaining 33.1% of respondents said that investing in gold carries little risk. Interestingly, none of the participants classified gold as an investment with medium, high, or extremely high risk.These findings support the general perception among investors that gold is a low-risk investment, which increases its allure as a dependable option in financial markets.

Respondents' Perception of the Risk Level Associated with Investing in Gold.



(Source: Data collected through a primary field survey)

Respondents' Duration of Investment in the Equity Derivatives Market.

Response		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-2 Years	120	37.5%	37.5%	37.5%
	More than 3 years	200	62.5%	62.5%	100.0%
	Total	320	100.0%	100.0%	

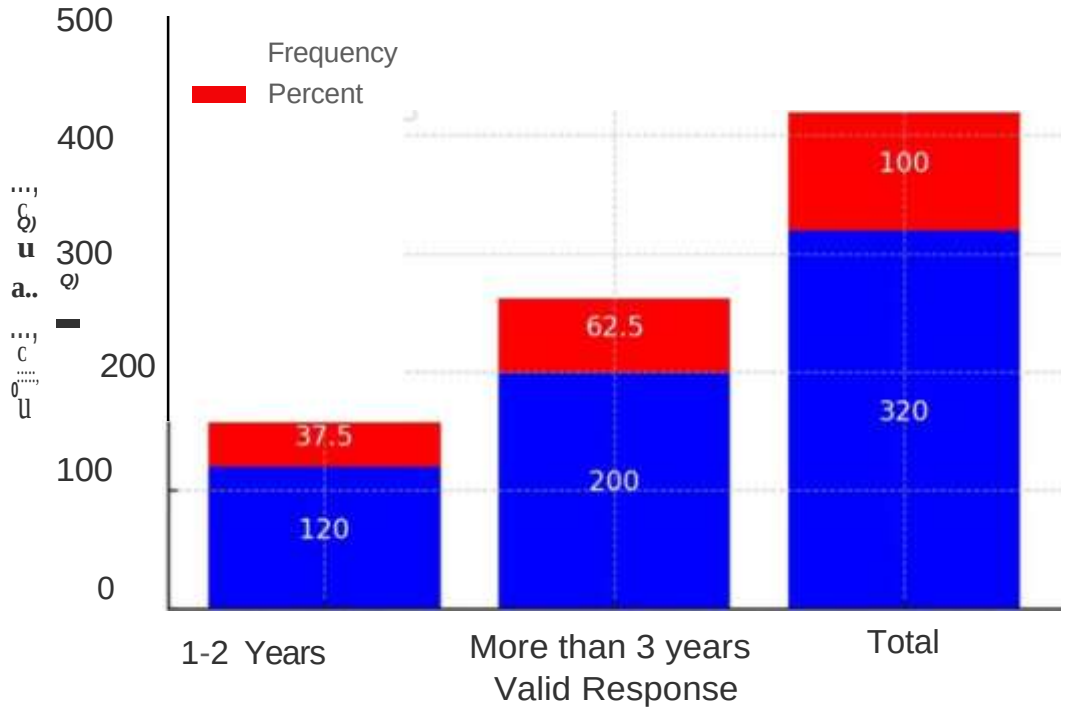
(Source: Data collected through a primary field survey)

The table and chart show how long respondents have been actively investing and trading in the equities derivatives market. They were created using primary data gathered through a field survey. According to the data, the vast majority of respondents 62.5% have been trading equity derivatives for longer than three years. This suggests that there are a lot of seasoned investors in the market.

However, 29.8% of the participants stated that they have only been trading and investing in the stock derivatives market for a short time, ranging from one to two years. This implies that a sizable fraction of traders are comparatively recent arrivals to the market, which may point to rising interest in and involvement in derivative trading.

Overall, the results show that although many investors have a lot of experience trading derivatives, there is also a constant flow of new players, which reflects the market's changing dynamics and investors' growing understanding.

Respondents' Duration of Investment in the Equity Derivatives Market.



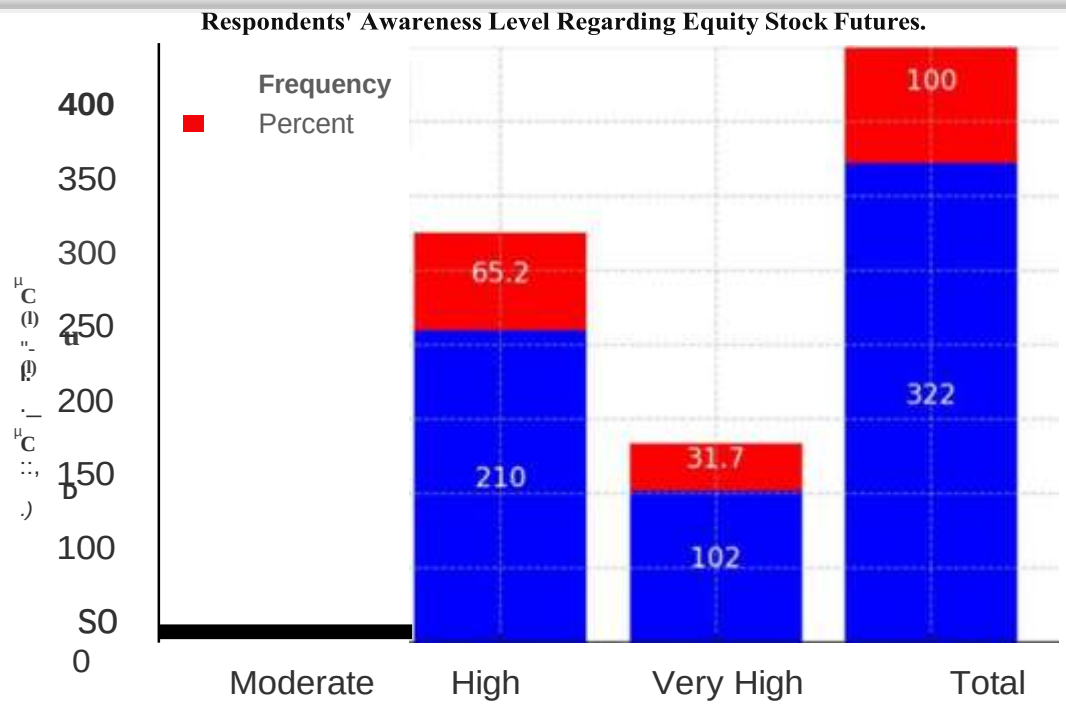
(Source: Data collected through a primary field survey)

Respondents' Awareness Level Regarding Equity Stock Futures.

Resoonse		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderate	10	3.1%	3.1%	3.1%
	Hir'h	210	65.2%	65.2%	68.3%
	Very high	102	31.7%	31.7%	100.0%
	Tot<il	322	100.0%	100.0%	

(Source: Data collected through a primary field survey)

The table and chart produced from the core data gathered via the field survey offer insightful information about the respondents' degree of familiarity with equity stock futures. It is clear that a sizable majority of respondents 65.2% said they were highly knowledgeable about equities stock futures. Furthermore, 31.7% of the respondents said they have a very high level of awareness. This suggests a high degree of financial literacy and involvement with derivative instruments among the respondents, as the majority of investors surveyed are knowledgeable about the idea and operationof equity stock futures.



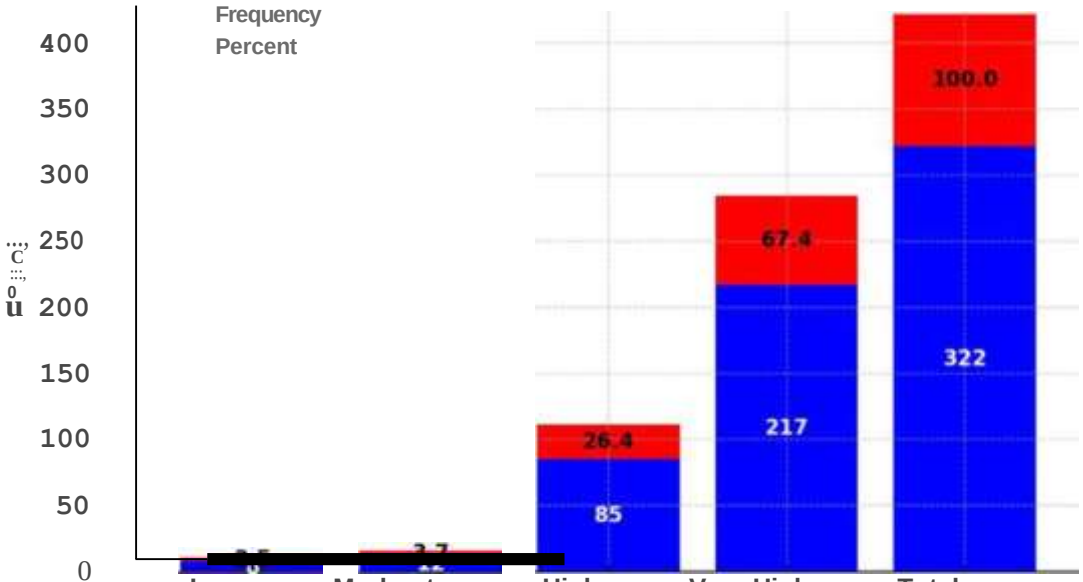
Level of Awareness Among Respondents Regarding Equity Stock Options.

Response		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	T ..,	8	2.5%	2.5%	2.5%
	MnrlPr<itP	12	3.7%	3.7%	6.2%
	Hi11h	85	26.4%	26.4%	32.6%
	Verv high	217	67.4%	67.4%	100.0%
	Total	322	100.0%	100.0%	

(Source: Data collected through a primary field survey)0

The core data obtained from the field survey was used to create the table and chart, which offer important insights into the respondents' levels of understanding about equity stock options. A substantial majority of participants, or 67.4%, said they were quite knowledgeable about equity stock options. This suggests that the investors polled have a thorough awareness and comprehension of this financial instrument. Additionally, 26.4% of the participants reported having a high level of awareness, indicating that almost all of them are well- versed in this field. A respectable degree of investor awareness is demonstrated by the sum of these two categories, which emphasizes the increasing importance and comprehension of equity derivatives in the market.

Level of Awareness Among Respondents Regarding Equity Stock



(Source: Data collected through a primary field survey)

Risk Management Techniques Employed by Investors in the Equity Derivatives Market

	Response	Fre uenc	Percent	Valid Percent	Cumulative Percent
Valid	Avoidance	20	6.2%	6.2%	6.2%
	Exit with minimum loss	38	11.7%	11.7%	17.9%
	Diversification	120	36.9%	36.9%	54.8%
	Average Down	42	13.0%	13.0%	67.8%
	Ignore the risk	34	10.6%	10.6%	78.4%
	Red in	40	12.4%	12.4%	90.8%
	Invest with the trend in the market		9.2%	9.2%	100.0%
	Total	325	100.0%	100.0%	

(Source: Data collected through a primary field survey)

The risk management strategies employed by investors in the derivatives market are depicted in the table and chart derived from primary survey data. A sizable percentage of respondents 36.9% said they prefer diversification as a risk management strategy, with the goal of spreading investments to minimize possible losses. 10.6% of respondents said they disregard the hazards, which could be the result of ignorance or overconfidence. Others use techniques including stop-loss orders, technical analysis, and hedging. This demonstrates the wide range of investor awareness and risk tolerance

Ranking of the factors considered as advantages of futures and options

Descriptive Statistics Factors						
Considered as Advantages in Investing in F11t11ri>s: <>n..I O_ntions: C:i>rtl'lintv of	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Oevil'ltion**	**Rank**
Profits	317	**1**	4	3.45	0.902	1
high liquidity	317	**1**	4	3.12	1.024	2
Low merging deposits	317	**1**	4	2.78	0.850	3
FO Transparency in pricing	317	**1**	4	2.43	1.143	4
Valid N (list wise)	317					

(Source: Data collected through a pnmary field survey)

The main elements seen as benefits in futures and options trading are highlighted in the above descriptive table. With a mean value of 2.78, low margin deposits score highest among these, suggesting that they are thought to offer the biggest advantage. High liquidity, which comes in second with a mean score of 3.12, comes next. With a mean score of 3.45, profit certainty comes in third, and pricing transparency comes in fourth with a mean score of 2.43.

FINDINGS

The respondents' opm10ns of the degree of risk involved in investment options, such as the financial derivatives futures and options market, are depicted in the table and graph based on the primary data gathered from the field survey. Most respondents 68.94% said that there is a very high level of danger in this market. 18.63% of respondents thought the risk was high, while 7.76% thought it was moderate.

- Respondents' opinions regarding the degree of risk involved in gold investing are displayed in the table and chart created from the primary data gathered through the field survey. The majority of respondents 66.7% said that investing in gold carries very little risk, while 33.3% thought it was minimal.
- The experience of respondents in trading and investing in the equity derivatives market is reflected in the table and chart created from the primary data gathered through the field survey. 37.5% of respondents said they had been trading and investing for one to two years, while the majority, 62.5%, said they had been active in the market for more than three years.
- The awareness levels of respondents with relation to equity stock futures are highlighted in the table and chart created from the primary data gathered through the field survey. The majority of respondents- 65.2%- said they were highly aware of equities stock futures, and 31.7% said they were extremely aware of them.
- The elements regarded as benefits in the futures and options market are included in the above descriptive table. With a mean value of 2.78, low margin deposits are the most advantageous option. High liquidity comes in second with a mean value of 3.12. With a mean score of 3.45, certainty of profits comes in third, and pricing transparency comes in fourth with a mean score of 2.43.

SUGGESTIONS

1. SEBI should take the necessary steps to encourage the derivatives segment's use as a hedging tool.
2. SEBI must take steps to increase investor understanding of the derivatives market since it is still relatively new in India and not well-known to all investors.
3. Since small investors cannot afford the existing premiums, the contract size should be lowered.
4. Before trading derivatives, investors must have a sufficient understanding of both technical and fundamental analysis.
5. Since public sector securities often entail less risk, investors are encouraged to think about making an investment in them.
6. Investors can increase their returns and make well-informed decisions with the support of regular updates to market data.

CONCLUSION

The money market lags behind the derivatives market. Profit or loss in the money market is determined by the underlying asset's value, which is linked to a sum of cash. The primary purpose of derivatives is to hedge against risks such as fluctuations in interest rates and exchange rates. With reduced risk, this aids in generating larger profits. The increasing number of trading agents has increased the awareness of derivative trading among Indian retail investors. Investor trades are how these agents make money. However, research indicates that a large number of investors lack in-depth understanding, which could cause uncertainty and risk. To better understand the market, they need to do more study and raise awareness.

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