"A STUDY ON THE GROWTH OF DERIVATIVES MARKET IN INDIA"

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ABSTRACT - The tremendous volatility of financial markets is a defining characteristic. The constant ups and downs in the prices of commodities, shares of stock, and financial instruments, as well as other tradable items like oil, represent a serious threat to enterprises that rely on stable prices in these markets cost estimates Hedging is a tool available in contemporary finance that may be used to mitigate this kind of risk. Hedging is a common use of derivatives. Of course, there are also some who utilize it for speculating, which is illegal in India.

Products with value generated from one or more underlying assets or bases are known as derivatives. Derivatives are a kind of financial instrument that is based in part on the value and characteristics of another asset, called an underlying asset. Any prudent investor would prioritize lowering risk and increasing return certainty. Derivatives are a kind of contract that emerged out of the need to reduce exposure to risk. Futures and forwards for interest rates and currencies, as well as their respective structures, mechanisms, hedging techniques, and price determination.

Key Words: Derivatives Market, Stock Market, Future & Option, Hedging, Commodity Market, Risk Management, Trading, Profit Making Strategies.

1. GENERAL INFORMATION

1.1 Derivatives: what are they and how do they work?

The value of a derivative is derived from the value of an underlying asset. There are several uses for these intricate financial instruments, such as speculation, risk management, and gaining exposure to new asset classes or trading venues.

1.2 Definitions of Different Derivatives

There are essentially four categories of derivative contracts, and they are as follows:

Financial derivatives known as options provide the buyer the right but not the duty to purchase or sell an underlying asset at a predetermined price (the strike price) within a certain time frame (the term "options expiration"). American options are perpetual, meaning they may be cashed in whenever the option term is over. However, European options are only tradable until their expiry date.

Futures contracts are standardized agreements that provide the holder the right, on a certain date in the future, to purchase or sell the underlying asset at a predetermined price. Participants in a futures contract not only have the authority but are obligated to act in accordance with its terms.

Futures contracts are very liquid since they are exchanged on the exchange market, where they are also intermediated and regulated.

Futures contracts are standardized to make it easier for purchasers and sellers to liquidate their positions before the contract expires.

Forwards

The holder of a forward contract, like the holder of a futures contract, has the right but also the duty to fulfill the terms of the deal. However, since forwards contracts are OTC, they are not subject to the same trading rules and restrictions as exchange-traded goods.

In light of the lack of a universal template for such agreements, they may be altered to fit the specific needs of each party. Rather of being unwound prior to their expiration, forward contracts are typically kept until the expiration date and delivered into.

Swaps

Swaps are a kind of derivative contract in which two parties agree to swap financial liabilities. Investors often embark into interest rate swaps as their first swaps contract. The swap market is not a centralized marketplace. Due to the necessity for swaps contracts to be flexible in order to meet the demands of both parties, they are traded indirectly, over the counter.

Different swaps, such as credit default swaps, inflation swaps, and total return swaps, have emerged to meet the changing demands of the market.

2. INTRODUCTION OF THE STUDY

2.1 Derivatives in Finance: The Basics Contracts with a Future Date

A forward contract is a basic, individually negotiated agreement between two parties to acquire or sell an item at a future date and price. They are often exchanged between two financial institutions or between a financial institution and its customer, unlike futures contracts which are traded on an exchange.

Example

An American auto parts supplier agrees to accept payment of $1,000,000 in 90 days from an Indian business. Therefore, the importer is dollar deficient, in the sense that it owes dollars for delivery in the future. Let's pretend the current value of a dollar is $48. However, the dollar might strengthen against the '48 during the following three months. To protect themselves from currency fluctuations, importers may negotiate a 90-day forward contract with a bank at a price of '50 to hedge their exposure to currency fluctuations. One million dollars from the bank will be given to the importer in 90 days, and fifty million rupees will be given to the bank by the importer as part of a forward contract hedging a future payment. On the agreed date, importer will pay bank '50 million, and bank will pay importer '1 million, at the then-current exchange rate for the dollar plus ninety days. A currency forward contract like this one is rather common.

Following is a condensed explanation of how a forward contract works:

- ✓ Due to the fact that forward contracts are agreements between two parties, they are vulnerable to the risk of default by one of the parties. These are riskier than futures contracts because to the potential for one or both parties to fail to fulfill their obligations.
- ✓ Two, due to the fact that they are all individually drafted, no two contracts are the same in terms of duration, value, expiry, asset kind, quality, etc.
- ✓ Third, in a forward contract, one party "goes long" by committing to purchase the asset at a future date. By agreeing to sell the same asset on the same date at the same price, the other party takes a short position. An open position refers to a situation in which one of the parties to the forward contract has no corresponding obligation.
- ✓ The term "hedger" is frequently used to refer to a party who has a closed position.
- ✓ The delivery price is the agreed upon amount in a forward contract. The delivery price that would apply if a forward contract were entered into at a certain time is referred to as the forward price for that period. The forward price and the delivery price should be treated differently. At the moment of the agreement, both parties have an equal amount

of leverage. While the delivery price is guaranteed to stay constant over time, the forward price is subject to fluctuation.

- ✓ Derivative assets, also known as synthetic assets in the forward market, may be contracted in the forward contract by combining underlying assets.
- ✓ On the expiry date, the forward market requires the delivery of the underlying asset to satisfy the contract. In the event of a contract rescindment, the aggrieved party is stuck dealing with the same counter party it originally dealt with, which may use its monopolistic power to demand whatever terms it pleases.
- ✓ The relationship between forward and underlying asset prices is known as a covered parity or cost-of-carry relation in a forward contract (see also: clause 7). These connections are also useful for calculating future asset values based on arbitrage.
- ✓ In the foreign currency market, forward contracts and interest rate bearing instruments are widely used. The forward rate is quoted by the majority of big, worldwide banks at their "forward desk" inside their foreign currency trading room.
- ✓ As well as the current rates, these institutions also quote their respective forward rates for the foreign exchange market.
- ✓ Various forward contracts, including hedging contracts, transferable specified delivery contracts, and non-transferable specify delivery contracts are all permissible under the Indian Forward Contract Act of 1952. You are not restricted from selling or trading your hedge contract, and it is not tied to a specific delivery of any kind. Specific delivery contracts are freely transferable from one party to another, but they are only concerned with one set shipment. There must be a delivery. Non-transferable particular delivery contracts are exactly what they sound like: contracts for the supply of a very specific item or service that cannot be assigned to anyone else.s

A forward contract is an agreement between two parties to purchase or sell an item in the future at a certain price for delivery at a future date and location. Because of the unique needs of each business, these agreements are seldom cookie-cutter templates.

Predictions of the Future

Futures contracts, like forward contracts, are agreements between two parties to acquire or sell an item at a future date and price. Typically, a futures contract will be exchanged on a specialized market called a futures exchange, which establishes rules and regulations for the trade of futures contracts.

Example

Since he can't predict what the price of silver will be, a silver maker is worried about his capacity to make a profit. Based on current output, he anticipates having about 20,000 ounces of silver available within the next two months. He is OK with the present silver price of £ 1052.5 per ounce and the July futures price of £ 1068 per ounce at FMC. However, he is concerned that prices may decrease in the future. So, he's going to start trading futures. With a delivery date in July, he will be selling four MCX contracts, each for 5000 ounces at'1068.

Standardization

The amount of the commodity, the quality of the asset, the day and month of delivery, the units of price quotation, the place of settlement, etc., are all common specifications in a futures contract. The Chicago Board of Trade (CBOT) and the Chicago Mercantile Exchange are two of the major futures contract exchanges (CME). Each futures contract term is spelled out in detail.

House Clearing

The clearing house is a subsidiary of the exchange that mediates transactions between buyers and sellers of futures. Essentially, it ensures that those involved in a transaction will fulfill their obligations. Multiple members of the clearing house have offices in close proximity to the clearing house itself. For this reason, every contract has the clearing house as its counter party.

Compensation Amount

Each futures contract is marked-to-market at the end of each trading day since they are all executed via the same exchange. The settlement price is determined by the exchange. Every contract's daily gain or loss is determined based on this settlement price. Members' accounts are credited or debited accordingly.

Margin and Settlement Every Day

Futures contracts also have the additional characteristic of requiring the buyer to place an initial margin deposit with the broker. Minimum margin requirements for various assets are typically established by the exchange, but the broker has the flexibility to establish larger margin restrictions for his customers based on the clients' creditworthiness. To reduce the possibility of loss on either side of a futures deal, margin accounts are used as collateral.

Estimating the Size of a Tick

Futures prices are quoted in units of currency, with a minimum price change of one tick size. As a result, futures prices should be rounded to the closest tick.

The basis of a futures contract is the price differential between the futures price and the cash price of the underlying asset.

3. LITERATURE REVIEW

Derivatives, as the author pointed out in the prior chapter, have received widespread criticism for their allegedly destructive character in the financial markets and the impacts this has spilled over into the actual economy **(Sharma, 2018)**. Derivatives are often thought of as financial tools that have caused financial losses or corporate collapses, as noted by McClintock, 1996. Furthermore, he claims that their (the derivatives market) is blamed for the rising worldwide financial instability of the global economy. Fearful of both firm-specific and systemic risks, the public has had a mixed reaction to derivatives, along with other transactions that were once hailed as hallmarks of market efficiency such as conglomerate mergers and junk bond offerings

Credit, legal, market, liquidity, and management risks are all part of the firm-specific risks, while "greater competition between banks and non-bank financial institutions, greater interconnectedness of financial markets, increasing concentration of derivatives trading, the reduced disclosure of financial information through off-balance-sheet activities, and increased market disturbances due to financial and telecommunication instabilities" are all part of the systemic risks **(Beckett,2015).**

Several theoretical arguments have been made against the function of derivatives, and there have been heated disputes on the reasons why derivatives should exist. Their very existence as a concept has been criticized (Dodd, 2017). Therefore, the author believes it is important to comprehend the origins of derivatives in the financial sector, as well as their pervasive character over the decades of global financial market evolutions.

According to **Chris Gaffney (2019**), the US dollar's dominance over the world's financial markets has contributed significantly to their explosive expansion. But, he says, things are looking good in London and Tokyo. Furthermore, the "investment banks, securities companies, and futures and options exchanges" are challenging the "commercial banks and stock exchanges," which had previously dominated the market. The once-dominant onshore market, which was heavily regulated, has been superseded by offshore markets, which are governed by fewer rules.

The unexpected breakdown of fixed rates in several nations including Mexico, Thailand, Korea, Russia, and Brazil in the mid-1990s is another example of how the global financial markets have evolved since the collapse of the Bretton Woods Agreement on pegged exchange rates in the early 1970s. As a result of these occurrences, regulators, users, and controllers are under increased pressure to comprehend the role of investment managers and company treasurers in the assessment and management of financial and operational risks. The move toward a unified European regulator, as well as the implementation of GRC and the recommendations of the Basel Committee, are examples of how regulation and controls have evolved. It's not only that the internet has made the globe a very different place in the last two decades; it's also that it's opened up a plethora of new options for fiscal management **(Gaffney 2019).**

One way to look at derivatives is as a product of social engineering and market demand in the financial sector, with deep historical origins in the actual economy **(Sharma, 2008)**. According to Brenner (2016), the need to control highly increased volatility and fluctuations resulting from inflation problems, currency problems, debt defaults, and many other factors became acute as the production-dominant economy began to give way to the financial economy in the late 1960s and early 1970s.

4. PROBLEM STATEMENT

When investors have too many derivatives on their books and are thus overleveraged, problems might develop when the value of the derivative swings against them and margin calls must be made. Futures, options, contracts for difference (CFDs), and swaps are all very popular forms of derivatives trading. Market risk, counterparty risk, liquidity risk, and connectivity risk are the four main types of derivatives risks that will be discussed in this article. No. Since derivatives are so pervasive, they will unavoidably play a role in any financial crisis, but they cannot constitute the root of the problem. They're just instruments that may be utilized well to mitigate danger or improperly to create new dangers without compensating advantages. Forward contracts have limited utility because of three primary issues:

- ✓ Finding a willing counterparty can be time-consuming and expensive;
- ✓ The forward's market is illiquid because of their unique characteristics, making it difficult to sell forwards to other parties if desired; and
- ✓ One party typically has an incentive to break the contract. Since investors may enter the market with very small sums of money and have their benefits from price swings amplified, gearing is the primary risk of etc derivatives.

5. OBJECTVES OF THE STUDY

- ✓ There is no advance of principle to be returned and no interest or dividends to be earned, unlike with debt instruments.
- ✓ Risk management, hedging, arbitrage across markets, and speculation are just few of the many applications for financial derivatives.
- ✓ A goal of this analysis will be to dissect the workings of futures markets.
- ✓ Find out where buyers and sellers stand in terms of profits and losses when dealing in futures

6. RESEARCH METHODOLOGY

6.1 METHODS FOR DATA COLLECTION & VARIABLES OF THE STUDY

Methods for data collection

- ✓ Primary Data
- ✓ Secondary Data

Primary Data

Primary source of data was collected by questionnaire.

Secondary Data

Secondary source of data was collected from

- ✓ Books
- ✓ Journals
- ✓ Magazines
- ✓ Web's big data es

Sampling

The sample technique utilized for data gathering is convenient sampling. The convenience sampling method is a non-probability strategy.

Sampling size

Big data indicates the numbers of people to be surveyed. Though large samples give more reliable results than small samples but due to constraint of time and money,

Plan of analysis

Diagrammatic representation through graphs and charts

Findings & suggestions will be given to make the study more useful

7. DATA ANALYSIS AND INTERPRETATION

Tools for Data Analysis Sampling Strategies

Non-probability sampling, on the other hand, is when samples are selected from a population in a non-random fashion. As it does not need a complete survey frame, non-probability sampling may gather data quickly, effectively, and affordably.

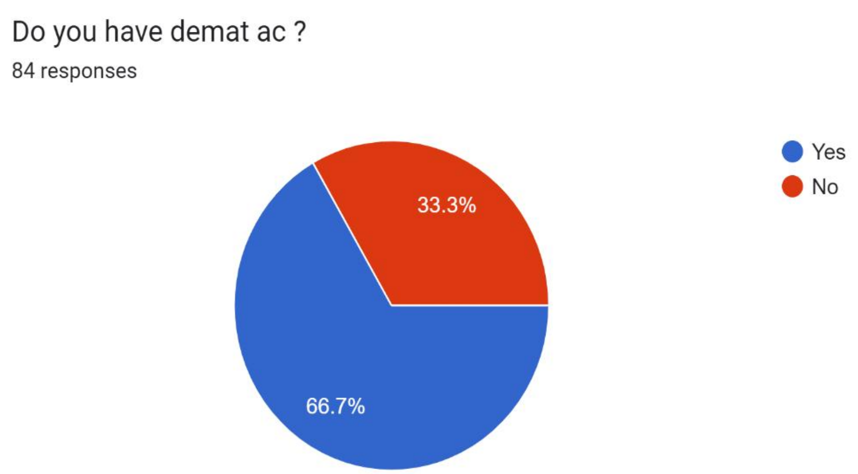

Chart 1 shows that there are total 84 responses out of which 66.7% have their Demat ac. According to this analysis, there is a requirement of promotional activities regarding Demat AC opening.

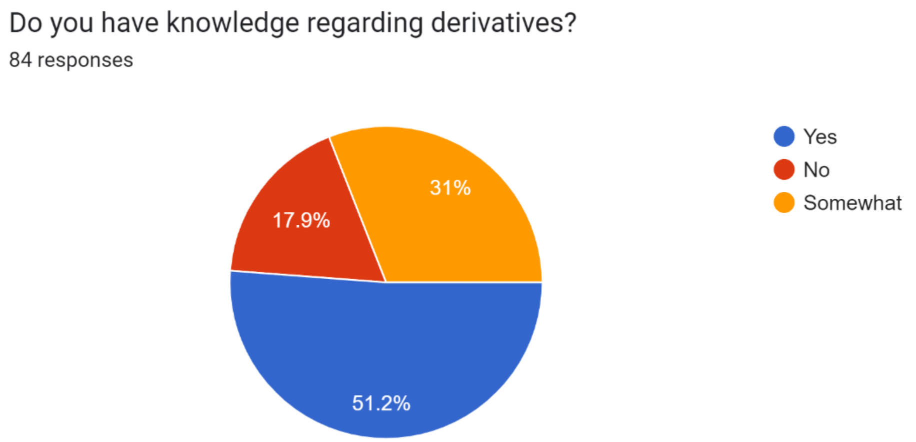

Chart 2 shows that only 51.2% people have proper knowledge for derivatives. Rest 31% are somewhat aware about it while 17.9% are unaware. So as a conclusion of this chart, awareness campaign must be done for local public.

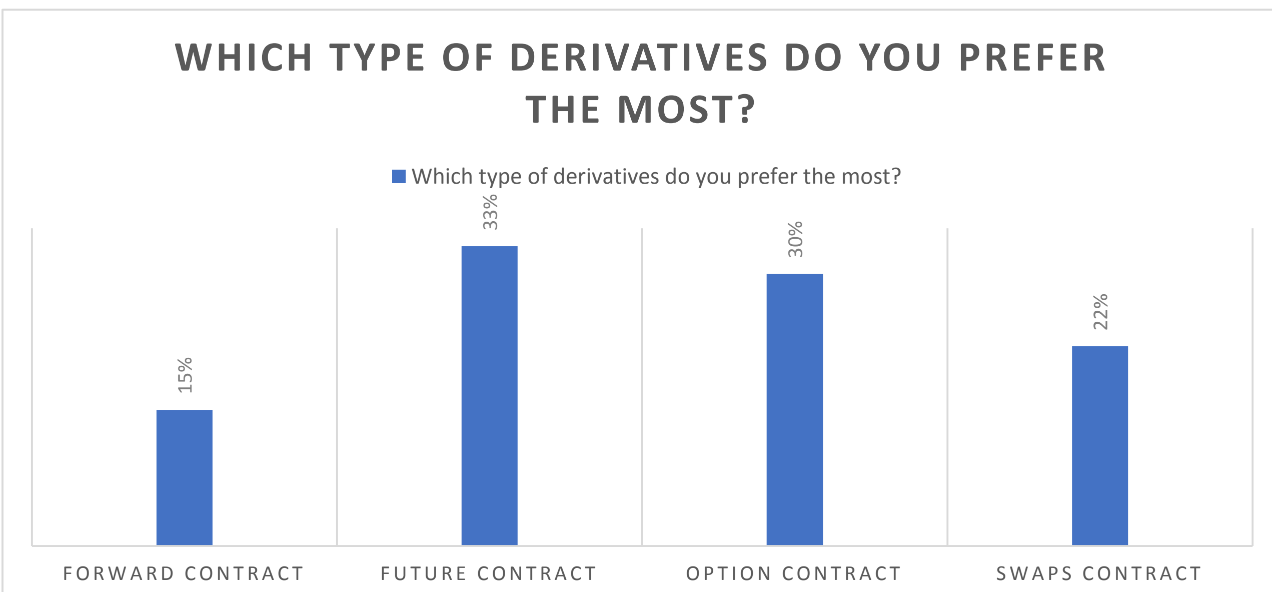

Chart 3 shows that majorly prefer future contract as well as option contract. After that contracts people prefer swaps contract and less prefer forward contract.

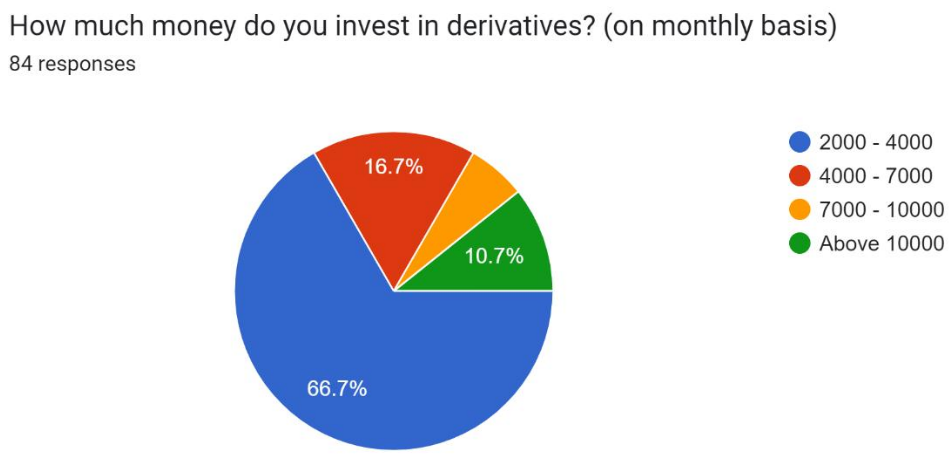

Chart 4 shows that 66.7% of respondents which is most common investment bracket is 2000 – 4000 Rs. In derivatives on monthly basis. Also few respondents invest more than 10000Rs. In derivatives on monthly basis.

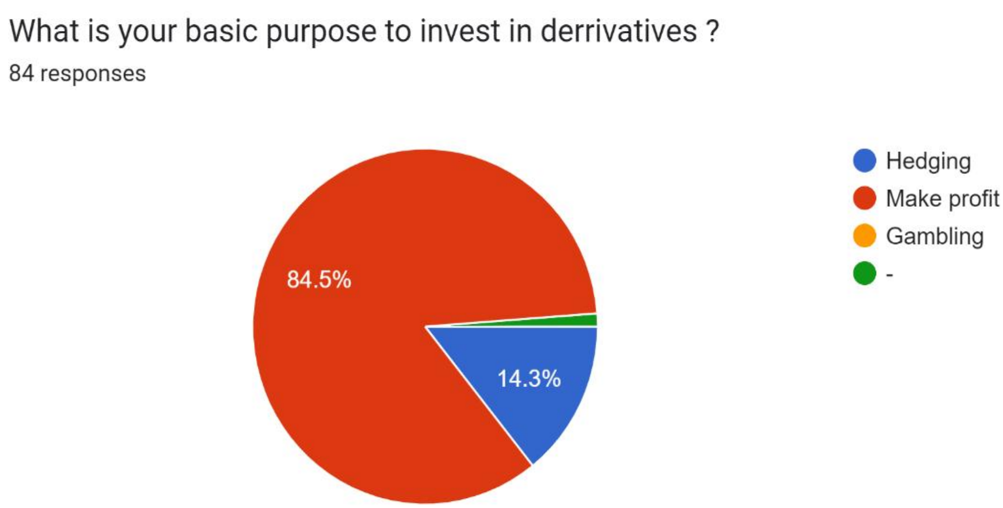

Chart 5 Shows that most of respondent's purpose to invest in derivatives is to make profit & only 10.7% respondent's have hedging purpose which is very sad.

Chart 6 shows that more than 60% of respondents believe that risk and safety factors In trading of derivatives, depends on the market conditions but still more than 20% believe its risky and less than 10% believe its safe.

How confident are you in the stability and reliability of the derivatives market in India?

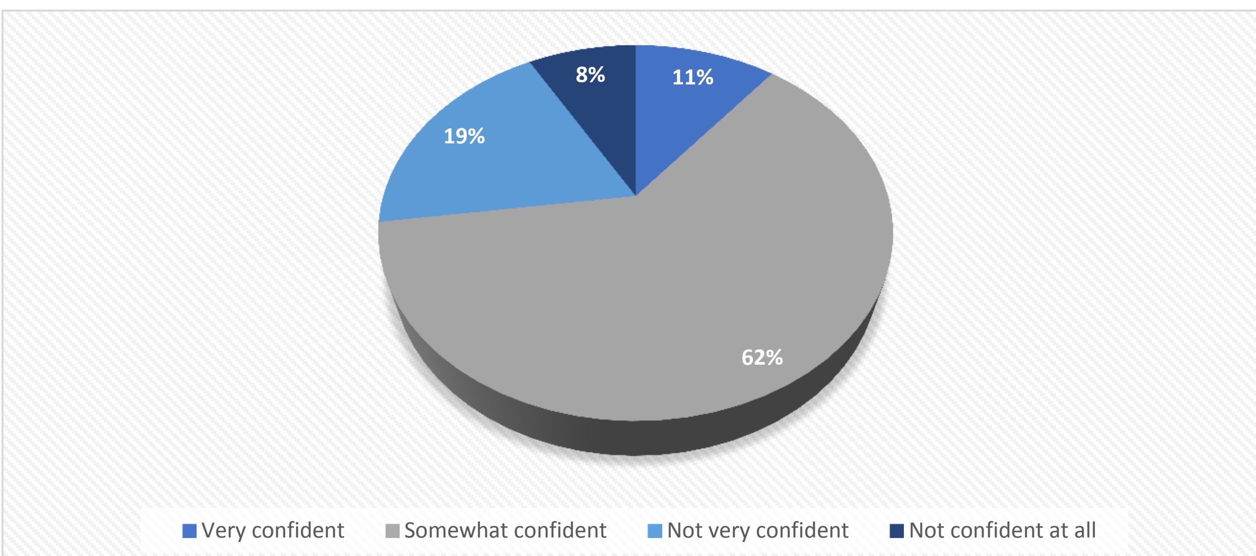

Chart 7 shows that 62% people are somewhat confident about stability and reliability of the derivatives market In India while only 11% people are very confident about stability and reliability if the derivatives market in India.

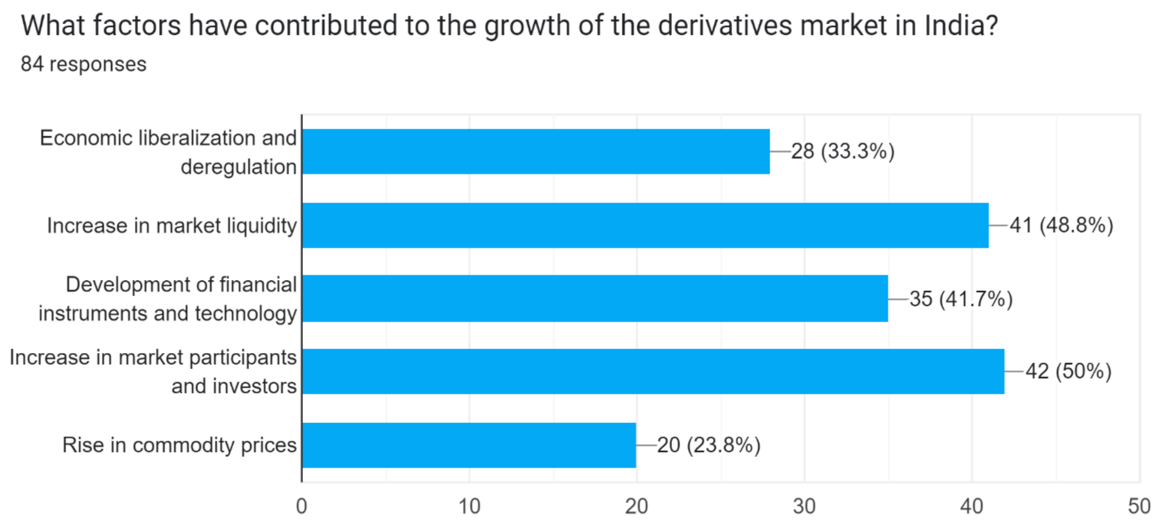

Chart 8 shows that the factors like Increase in market liquidity and increase in market participants and investors have contributed majority of the part in the growth of derivatives market in India. They are 48.8% and 50% respectively.

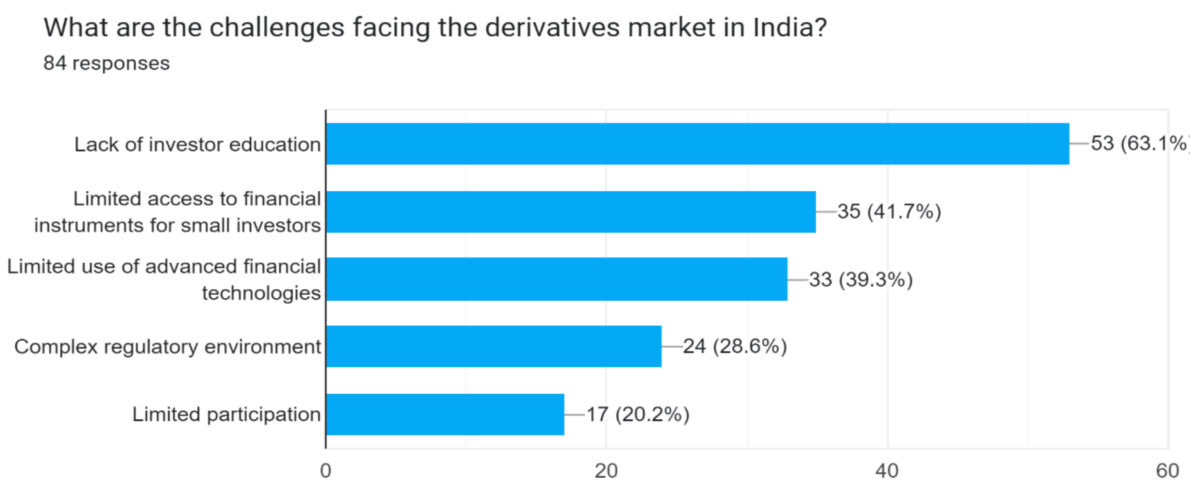

Chart 9 shows that the most common challenge faced by derivative market is lack of investor education which is 63.1% and it represents that limited participation is the lowest challenge faced.

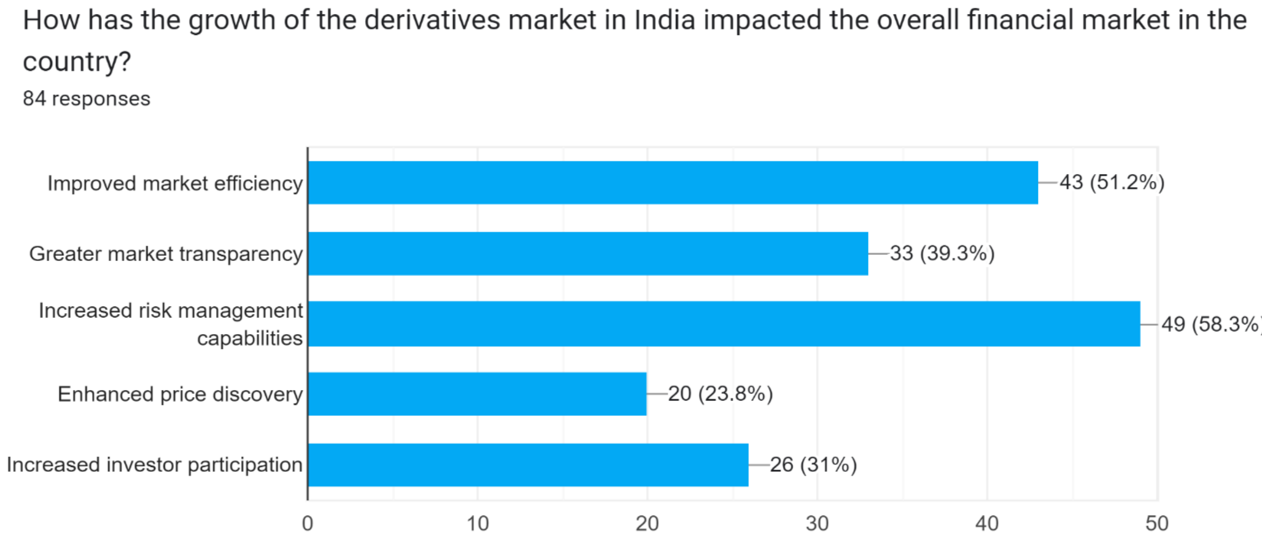

Chart 10 shows that Increased risk management capabilities have impacted 58.3% derivative markets for overall financial market in the country which is highest among all others.

8. HYPOTHESES TESTING AND METHODS

8.1 Analysis of a Hypothesis Testing Strategy

In order to determine whether or not the null hypothesis is correct, researchers conduct statistical tests based on samples.

Data from representative samples of the population is the primary tool used by statisticians in testing theories.

When comparing two hypotheses, analysts always use a sample drawn at random from the whole population.

One example of a null hypothesis is the argument that the average return on investment for a given population is zero.

A new theory or null hypothesis is presented as a challenge to the existing dominant paradigm. The only correct answer is (1) or (2). One of the two choices is always the right one.

8.2 Testing Hypothesis Methodology

- ✓ Analysts must first provide competing hypotheses when attempting to choose amongst numerous alternative explanations.
- ✓ Once all relevant data has been gathered, an analysis strategy outlining the criteria to be used to assess the findings of the data collection must be developed.
- ✓ The third stage involves putting your knowledge from the prior two phases into practice by carrying out the necessary processes and evaluating the sample data.
- ✓ The last stage is to draw conclusions from the data and determine whether the null hypothesis may be discarded.

9. CONCLUSION/SUGGESTIONS

Stock futures are a kind of derivative contract that gives the holder the right, but not the obligation, to purchase or sell a specified basket of stocks on or before a certain date. After purchasing the contract, you are legally bound to abide by its conditions.

- ✓ By doing so, hedgers may transfer their risk to speculators, and investors can have a good sense of where a stock's or an index's futures price is likely to settle.
- ✓ It assists in forecasting the future demand and supply of shares based on the present future price.
- ✓ The futures market is based on margin trading, which means that even tiny speculators may participate by putting up just a fraction of the full value of their assets in order to make trades.
- ✓ Based on my findings, I expect stock prices will track the performance of the underlying assets in the future. I've narrowed it down to three major corporations: Wipro, TCS, and Infosys.
- ✓ In most cases, investors may expect a return on their money by buying Infosys at a price that is higher than the company's underlying asset value.
- ✓ Whereas investors are generating typical gains despite the fact that the value of future prices and the value of underlying assets are practically same for Wipro and Tcs

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