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# An empirical study on stock market volatility in terms of investments in India

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***ABSTRACT***
*Understanding volatility has grown more important among investors in recent years. They are concerned about the risk of their investment as well as the potential returns. Investors are primarily influenced by the flow of information, which is directly linked to stock price volatility. The goal of this research is to learn about the characteristics of volatility using data from a literature review.Made accessible This research also elucidates the causes and effects of stock market volatility, as well as attempting to propose solutions.Various characteristics of volatility, such as volatility clustering, mean reversion, and volatility persistence, are highlighted. It has been discovered thatVolatility in the stock market is caused by factors such as information flow, trading volume, economic considerations, and investor behaviour, The stock exchange. It also implies that the stock is undervalued Asymmetry responses and spillover effects of volatility have been observed in markets all around the world.*

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## I. INTRODUCTION

Understanding the behaviour of volatility in the stock market has gotten a lot of interest from experts and analysts. Investors put their money into the stock market in the hopes of making a respectable profit, despite the fact that it is a risky investment. The essential notion in financial asset pricing is the risk-return trade-off. The volatility of asset return is a measure of risk associated with financial assets. Risk and return are inversely proportional, hence there should be a positive link between expected returns and uncertain volatility of returns, and a negative relationship between unexpected volatility and realised returns. The latter relationship occurs when an unanticipated increase in volatility enhances required rates of return, resulting in an increase in the necessary rate of return.Stock prices are falling . Rajput and Kakkar (2012) define volatility as a measure of risk.The difference between the present and average previous values of an asset The standard deviation of returns is referred to as volatility.Calculate the return distribution from the average If there is a significant range of price variations over a short period of time,When the price moves slowly, it has high volatility and when it moves quickly, it has low volatility.

## II. METHODOLOGY

With the use of data from evaluated literatures, this study aims to comprehend the term volatility and its properties. This strategy was chosen because it provides constant updated confirmation of stock market patterns. Scanning a series of research papers makes capturing the reasons for volatility in each stock market in different countries simple. AnotherThe discovery we make here Is the essence of the matter, which has been tested by a number of authors and has shown more pronounced facts. Taking Because of these clear connections, the current study sheds light on the causes and effects of stock price volatility in the United States.Market. The term "volatility of financial market returns" refers to the "variability of asset prices caused by changing market conditions."Due to the flow of information to the market, investors' expectations have changed.'Macroeconomic issues, such as changes in inflation rates, growth rates, government policies, and interest rates, as well as sector or company specific issues, such as foreign investments, mutual funds, investment trends, periodical reports, mergers and acquisitions, are examples of such information (good or bad news).Acquisitions, dividend announcements, and so on. How much do macroeconomic and company-specific factors influence pricing? The fluctuations in various countries are seen below.

**PURPOSE OF THE STUDY**

India's stock markets have recently been in the spotlight for all the wrong reasons. One key explanation is the unpredictably high volatility that has been noticed for an excruciatingly long time. Investors losing money and traders facing margin crises have spurred government agencies to reconsider regulation measures. This extreme volatility in the Indian market, on the other hand, is nothing new.Storey. Its beginnings can be traced back to the 1990s. All forms of interim solutions have failed to resolve the problem, yet they continue to catch the attention of the public.The front page of every newspaper This led us to believe that in a more mature and sophisticated stock market, this level of volatility might be acceptable.Not to annoy the investors As a result, we decided to look into stock market volatility studies. We could learn a lot from this.Able to make a list the explanation for the similarity or dissimilarity between countries.

**CHARACTERISTICS OF VOLATILITY**

Rakesh Kumar (2007) used daily and monthly returns data to study the volatility pattern of the Indian stock market from 1996 to 2005. Because investors are mostly responsive to economic factors, the study found considerable volatility during the decline period (1996-1999) and recession period (2000-2002) and moderately less volatile during the economic growth period (2003-2005).A class of volatility models is required to measure the associated risk. ARCH (Autoregressive Conditional Heteroscedasticity) and GARCH (Generalised Auto regressive Conditional Heteroscedasticity) are widely accepted models of volatility in the financial field, according to Suchismita Bose (2007).Return based on previous forecasting failures and volatility predictions It's understandable because the situation is so common.The volatility of one asset market frequently spills over to other asset markets and any other market.Market disruptions in developed countries are transferred to other global markets, resulting in increased volatility.

**CAUSES FOR VOLATILITY OF PRICES IN STOCK MARKET**

The stock markets feature considerable volatility and shifting stock values, which cause fluctuation in the returns on investors' investments. The values of stocks fluctuate on a daily basis, with buyers and sellers actively participating in the market with the goal of making a profit and determining the value of their holdings. If more investors desire to buy, the price will rise.(sell) a stock rather than buy (sell) one – prices rise (fall), and these price changes define the return and risk.The stock market's turbulence. It's more crucial to understand the elements that impact them, and what actually drives them to invest.It Is well documented that "investors are largely attentive to economic issues."

According to Ramanthan and Gopalakrishan (2013), various factors influence price changes, including recent information on stock prices, inflation, market and peer economic strength, psychological issues, supply and demand (liquidity), and anxiety about the company's future (even without information). The flow of information is an important component in stock price changes, which is linked to volatility.

Jones, Kaul, and Lipson (1994) look into the impact of information flow on stock price behaviour and conclude that public information is the primary source of short-term return volatility. Investors react and interpret immediate information, adjusting market prices up or down, resulting in extreme market volatility (volatility). Volatility is also linked to trading volume and opportunity, as well as many market and non-market factors. Berry and Howe (1994) discovered a positive, reasonable relationship between public information and trading volume, but an insignificant relationship with price volatility, and they emphasised intraday flows and Reuter's News Service news releases per unit of time as a measure of public information arrival. The volatility persistence pattern is the one most significant characteristics of volatility.

**ASYMMETRIC RESPONSE AND VOLATILITY SPILLOVERS**

Many empirical research have demonstrated that asymmetrical fluctuations in stock prices for a particular event or shock result in significantly higher stock return volatility. Investors are more sensitive to bad news than to positive news, resulting in greater stock price volatility.

When Black (1976) looked at the impact of leverage on volatility, he discovered a substantial negative correlation between stock price movements and volatility response, with stock volatility likely to rise as stock prices fall. According to the leverage effect, a decline in a company's stock price diminishes the value of equity relative to debt, raises financial leverage, and so increases the risk of owning stocks, which in turn increases future volatility.

Because of the strong financial market links, the volatility of one stock market spills over to another, and market movement information is broadcast all over the world. 'Volatility shocks in established stock markets have a major impact on returns and volatility,' according to several empirical research.'Spillover implications on growing stock markets, such as India.' Significant differences were discovered by Kumar and Mukhopadyay (2002).Using the Granger causality test and Univariate GARCH, we can determine the relationship between return and volatility spillover from the United States to India.

From January 1996 to September 2008, Badhani (2009) examined the daily closing prices of the S&P 500 (US market) and S&P CNX Nifty (Indian market) indices. This research reveals a considerable imbalance in return response and spillover effects on volatility; the returns in the Indian stock market are more responsive to negative shocks in the US market than the returns in the European stock market. Positive shocks and the effect of positive shocks on volatility

Panda and Deo (2014) investigated the volatility spillover effect between the rupee-dollar exchange rate and the CNX return series during pre-crisis, post-crisis, and in-crisis periods and found asymmetry and volatility spillover in all three periods, with the post-crisis period having the highest asymmetry and volatility spillover effect when compared to the other two periods.

## III. FINDINGS

Using evidence from many literatures, this study seeks to give a conceptual framework for stock market volatility. High volatility is discovered when there is a broad range of price variations over short time periods, whereas low volatility is found when price movements are gradual. According to the research, investors are the ones that cause price volatility in the market.Through understanding information flows in the stock market As a result, information flow is intimately linked to market volatility.Prices. Negative shocks (news) have a greater impact on high volatility than positive news. Volatility is also linked to a number of factors.Economic growth rates, company announcements, dividend declarations, psychological concerns, and trading are all factors to consider.Investors' instant reaction to these elements, like as volume, etc.where investors react quickly to these circumstances and have an impact on stock price volatility.This research also explains the main characteristics of volatility in stock market prices, such as volatility clustering, mean reversion, and the degree of volatility persistence. The volatility of one stock market is shown to be communicated to others.Due to market integration, stock markets have become more interconnected. The paper investigates asymmetry response and asymmetry response via a literature review.There are market-wide volatility spillover effects. We find that developed markets have stronger reaction and spillover effects to emerging markets.Markets in transition The literatures offer a variety of viewpoints, ranging from unidirectional volatility spillover effects to bidirectional volatility spillover effects.High volatility spillover effects among the stock markets.

## IV. CONCLUSION

This research aims to comprehend the idea of volatility in stock market values, as well as the causes and implications of volatility. The key characteristics of volatility are to examine the components that influence the causes of volatility, however no single collection of factors is accountable for the volatility trend. According to the research, investors must be cautious.Be aware of the factors causing market volatility and consider whether they are internal or external (spillover) And react appropriately to the situation The research is confined to the published literature in this field, but the results are promising.There is a lot of room for more research, and one may use it to analyse the volatility and impacts of on the market.

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