Stock market volatility and return analysis: A systematic literature review

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Abstract: In the field of business research method, literature review is more relevant than ever. Even though there has been lack of integrity and inflexibility in traditional literature reviews while some questions can be raised about the quality and trustworthiness of these types of reviews. This research provides literature review, using a systematic database examine and cross-reference snowballing. In this paper, previous studies featuring a GARCH family-based model stock market return and volatility have been reviewed. The stock market plays a pivotal role in today's world economic activities and it's called a "barometer" and "alarm" for economic and financial activities in a country or region. In order to prevent the uncertainty and risk in the stock market, it is particularly important to effectively measure the volatility of stock index returns. However, the main purpose of this review is to examine studies which especially use to analyze return and stock market volatility. The secondary purpose of this review study is to conduct the content analysis of return and volatility literature review over a period of twelve years (2008 - 2019) and in 50 different papers. The study found that there has been a significant change of research work within the past ten years and most of the researchers worked for developed stock markets.

Keywords: Stock returns; Volatility; GARCH family model; Financial time series forecasting;

1. Introduction

In the context of economic globalization, especially after the impact of the contemporary international financial crisis, the stock market has experienced unprecedented fluctuations. This volatility increases the uncertainty and risk of the stock market and is detrimental to the normal operation of the stock market. To reduce this uncertainty, it is particularly important to accurately measure the volatility of stock index returns. At the same time, due to the important position of the stock market in the global economy, the healthy development of its stock market has become the focus of attention. Therefore, it is of great theoretical and literature significance to correctly measure the volatility of stock index returns.

Volatility is a hot issue in economic and financial research. Volatility is one of the most important characteristics of financial markets. It is directly related to market uncertainty and affects the investment behavior of enterprises and individuals. The study of the volatility of financial asset returns is also one of the core issues in modern financial research, and this volatility is often described and measured by the variance of the rate of return. The traditional econometric model often assumes that the variance is constant, that is, the variance is kept

constant at different times. The accurate measurement of the fluctuation of the rate of return is directly related to the correctness of portfolio selection, the effectiveness of risk management and the rationality of asset pricing. However, with the development of financial theory and the deepening of empirical research, it is found that this assumption is not reasonable. And the volatility of asset prices is one of the most puzzling phenomena in financial economics. Understanding volatility is still we face a very big challenge.

Literature reviews act as a significant part as a basis for all kinds of research work. Literature reviews serve as a foundation for knowledge progress, make guidelines for plan and practice, provide grounds of an effect, and, if well guided, have the capacity to create new ideas and directions for a particular area (Snyder, 2019). As similar, they carry out as the basis for future research and theory work. This paper conducts the literature review of relationship between stock returns and volatility. Volatility refers to the degree of dispersion of random variables. Financial market volatility is mainly reflected in the deviation of expected future value of assets. The possibility, that is, volatility, represents the uncertainty of the future price of an asset. This uncertainty is usually characterized by variance or standard deviation. For the relationship between this two, there are currently two main explanations in the academic world: the leverage effect and the volatility feedback hypothesis. Leverage often means that unfavorable news appears, stock price falls, leading to an increase in leverage factor, and the degree of stock volatility increases. Conversely, the degree of volatility weakens; volatility feedback can be simply described as unpredictable stock volatility will inevitably lead to higher risk in the future.

There are many factors that affect the price movements in the stock market: first, the impact of monetary policy. Generally speaking, the impact of monetary policy on the stock market is very heavy. If a loose monetary policy is implemented that year, the probability of a stock market rise will increase. On the contrary, if a relatively tight monetary policy is implemented that year, the probability of a stock market decline will increase. Secondly, the impact of interest rate liberalization on risk-free interest rates. Looking at the major global capital markets, the change in risk-free interest rates has a greater correlation with the current stock market. In general, when interest rates continue to rise, the risk-free interest rate will rise, and the cost of capital invested in the stock market will rise simultaneously. As a result, the economy is expected to gradually pick up during the release of the reform dividend, and the stock market is expected to achieve a higher return on investment.

Volatility is the tendency for the prices to change unexpectedly (Harris, 2003), however not all volatility is bad. At the same time, financial market volatility is also a direct impact on macroeconomic and financial stability. The important economic risk factors are generally highly valued by governments around the world. Therefore, research on the volatility of financial markets has always been the focus of attention of financial economists and financial practitioners. Nowadays, a large number of literatures have studied some characteristics of the stock market, such as the leverage effect of volatility, the short-term memory of volatility and the GARCH effect, etc., but some researcher show that when adopt short-term memory by the GARCH model it describes the model, there is usually a confusing phenomenon, as the sampling interval tends to zero. The characterization of the tail of the yield generally assumes an ideal situation, that is, obeys the normal distribution, but this perfect situation is generally not established.

Researchers have proposed different distributed model in order to better describe the thick tail of the daily rate of return. Engle (1982) first proposed an autoregressive conditional heteroscedasticity model (ARCH model) to characterize some possible correlation of the conditional variance of the prediction error. Bollerslev (1986) extended it to form a generalized autoregressive conditional heteroskedastic model (GARCH model). Later, the GARCH model was rapidly expanded and a GARCH family model was created. Bollerslev proposes a GARCH model of the t-distribution of unknown degrees of freedom k, and the degree of freedom k can be estimated from the data. When $4<k<\infty$, the kurtosis of the return is

greater than the normal distribution, and when $k \to \infty$, the distribution converges to the normal state. Another distribution that characterizes the thick tail is the generalized error distribution (GED) proposed by Nelson (1991). The distribution density is characterized by the shape parameter r. When r=2, the distribution is normal; when r<2, the distribution peaks thick tail; when r>2, the distribution tail is thinner than the normal.

When employing GARCH family model in analyze and forecast return volatility, selection of input variables for forecasting is as crucial as the appropriate and essential condition will be given for the method to have a stationary solution and perfect matching. It has been shown in several findings that the unchanged model can produce suggestively different results when fed with different inputs. Thus, another key purpose of this literature review is to observe studies which use directional prediction accuracy model as a yardstick since from the realistic point of understanding it is the core objective of the forecast of financial time series in stock market return. Leung et al. (2000) and Bhowmik et al. (2017) an estimate with little forecast error namely measured as mean absolute deviation (MAD), root mean squared error (RMSE), mean absolute error (MAE) and mean squared error (MSE) does not essentially interpret into a capital gain. Yao & Tan (2000) mention that, it does not stuff whether the predictions are precise or not in terms of NMSE (normalized mean squared error). It means that finding low root mean squared error does not feed high returns, in another words the relationship is not linear between two.

Consequently, in this manuscript it is proposed to categorize studies not only for their model selection standards but also for the inputs used for the return volatility and also how precise is spending them in terms of return directions. In this investigation, we will repute studies which use percentage of success trades benchmark procedures for analysis the proposed model. From this theme of view, this study authentic approach is compared earlier models in literature review for their input variables used for forecast volatility and how precise they are in analyzed the direction of the related time series. There are other review studies on return and volatility analysis and GARCH family based financial forecasting methods such as (Hussain et al., 2019), (Dhanaiah & Prasad, 2017), (Reddy & Narayan, 2016), (Mamtha & Srinivasan, 2016), (Scott, 1991). Consequently, the aim of this manuscript is to put forward the importance of sufficient and necessary condition selection as well as the model selection and contribute understanding to the academic researchers and financial practitioners.

Systematic reviews have most notable been expand surrounded by medical science as a way to synthesize research recognition in a systematic, transparent, and reproducible process. Notwithstanding all the opportunity of this technique, its exercise has not been overly widespread in business research, but it is expanding day by day. In this paper we used systematic review process because the target of a systematic review is to determine all empirical indication that fits the pre-decided inclusion criteria or standard to response a certain research question or hypothesis.

The main contribution of this paper is found in the following three aspects: (1) the manuscript considers the very recent years ’papers, 2008 to 2019, which have not been covered in previous studies. (2) By this study using both the qualitative as well as quantitative processes for examining the literature involving to stock returns. (3) The manuscript provides the study based on journals which will help the academicians and researchers to recognize important journals which they can denote for literature review, recognize factors motivating analysis stock returns volatility and can publish their worth study manuscripts.

2. Methodology

The study was conducted a structured based literature review, following the suggestions of Easterby-Smith et al. (2015), and Tranfield et al. (2003). In this manuscript was led a systematic database search, surveyed by cross-reference snowballing, as demonstrated in Figure-1, which one adapted from Geissdoerfer et al. (2017).

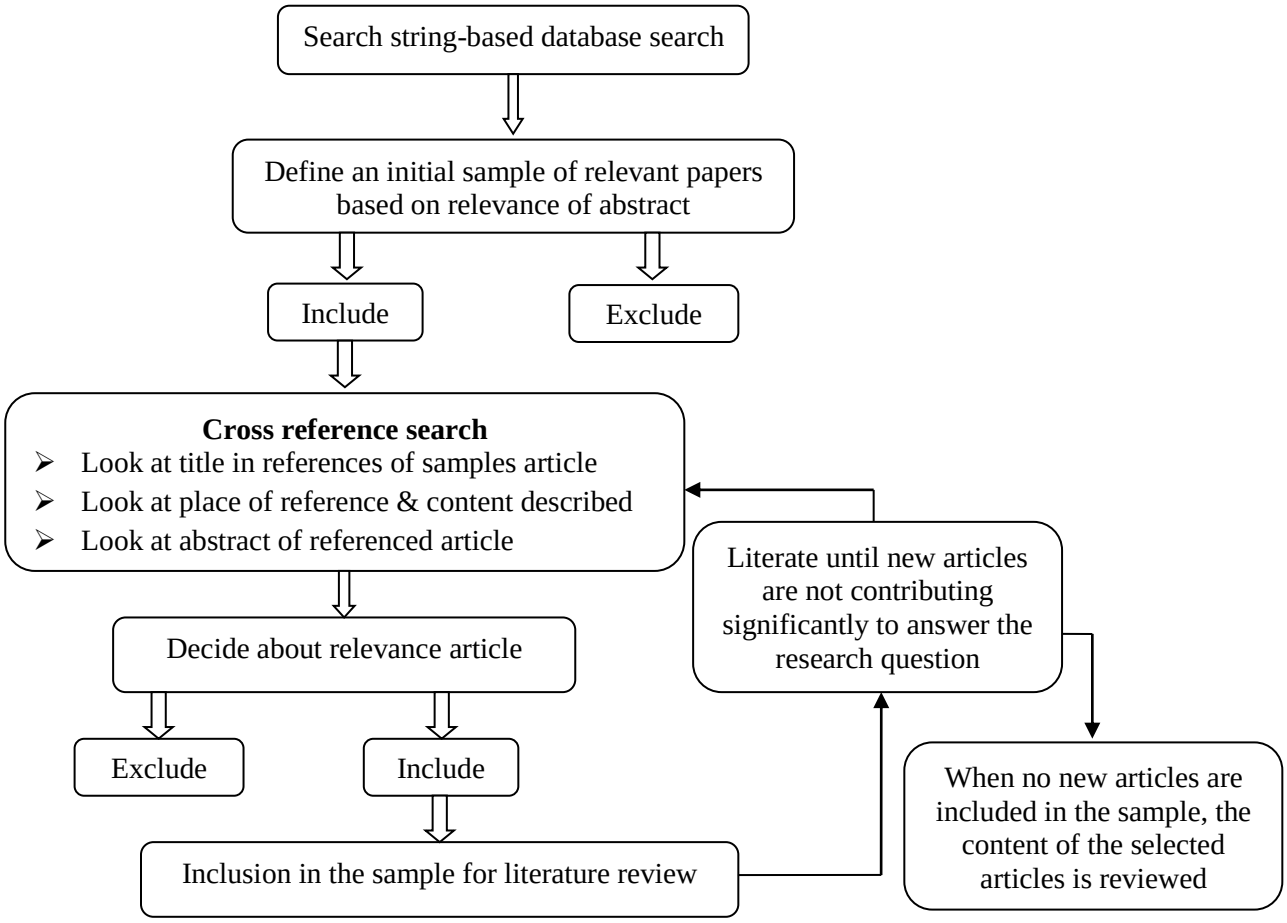

Figure. 1. Literature review method

At first stage, a systematic literature search was managed. As shown in Table – 1, the search strings, "market return" in 'Title ' respectively "stock market return", "stock market volatility", "stock market return volatility", "GARCH family model* for stock return", "forecasting stock return" and GARCH model*, "financial market return and volatility" in 'Topic 'separately 'Article title, Abstract, Keywords 'were used to search for reviews of articles in English on the Elsevier Scopus and Thomson Reuters Web-of-Science databases.

Table – 1. Literature search strings

Search string	Search field	Number of non-exclusive results		
		Scopus	Web-of-Science	Last updated
Market return	Title/Article title	1540	1148	17/01/2020
Market volatility	Topic/Article title, Abstract, Keywords	13892	13767	17/01/2020
Stock market return	Topic/Article title, Abstract, Keywords	11567	13440	17/01/2020

Stock market volatility	Topic/Article title, Abstract, Keywords	5683	6853	17/01/2020
market return and volatility	Topic/Article title, Abstract, Keywords	3241	6632	17/01/2020
GARCH family model* for stock return	Topic/Article title, Abstract, Keywords	53	41	17/01/2020
Forecasting stock return and GARCH model*	Topic/Article title, Abstract, Keywords	227	349	17/01/2020
Financial market return and volatility	Topic/Article title, Abstract, Keywords	2212	2638	17/01/2020

At second stage, suitable cross-references were recognized in this primary sample by first examining the publications 'title in the reference portion and their context and cited content in the text. The abstracts of the recognized further publications were examined to determine whether the paper was appropriate. Appropriate references were consequently added to the sample and analogously scanned for appropriate cross-references. This method was continual until no additional appropriate cross-references could be recognized.

At third stage, the ultimate sample was assimilated, synthesised, and compiled into the literature review presented in the subsequent. The method was revised on few days before of the submission.

3. Review of Different Studies

In this article, a massive number of articles were studied but only a small number of them well thought-out to gather the quality developed earlier. Every published article, three group are specified. Those groups are considered index and forecast time period, input elements, econometric models, and study results. The first class namely "considered index and forecast time period with input elements" is considered since market situation like emerging, frontier and, developed markets are important parameters of forecast and also the length of evaluation is a necessary characteristic for examining robustness of the model. And input elements are comparatively essential parameters for a forecast model because the analytical and diagnostic ability of the model is mainly supported on the inputs what variable used. In the "model" class, forecast models proposed by authors and other models for assessment are listed. At the last class which is important to our examination for comparing studies in relationships of proper guiding return and volatility acquired by using recommended estimate models is the "study results" class. Literatures of the eligible papers are summarized in a table format for future studies.

Table – 2. Different literature studies

Authors	Data Set	Econometric Models	Study results
Alberg et al. (2008)	Daily returns data, TASE indices, the TA25 index period October 1992 to May 2005 and TA100 index period July 1997 to May 2005	GARCH, EGARCH, GJR, and APARCH model	Findings suggest that one can improve overall estimation by using the asymmetric GARCH model; and EGARCH model is a better predictor than the other asymmetric models.
Singh et al. (2008)	Fifteen world indicesfor the period of January 2000 to February 2008 have been considered	AR-GARCH, bivariate VAR, Multivariate GARCH (BEKK) model	There is significant positive volatility spillover from other markets to Indian market, mainly from Hong kong, Korea, Japan and Singapore and US market. Indian market affects negatively the volatility of US and Pakistan.
Rao (2008)	Daily returns data from February 2003 to January 2006, Arabian Gulf Cooperation Council equity markets data	MGARCH and VAR models	Arabian Gulf Cooperation Council markets exhibit significant own and cross spillover of innovations and volatility spillover and persistence in these markets.
Olowe (2009)	Daily returns over the period January 2004 to March 2009	EGARCH in mean model	Nigerian stock market returns show that volatility is persistent and there is a leverage effect. The study found little evidence open the relationship between stock returns and risk as measures by its aim volatility.
Girard & Omran (2009)	Examine the interaction of volatility and volume in 79 traded companiesinCairo and Alexandria Stock Exchange	GARCH model	They found that information size and direction have a negligible effect on conditional volatility and, as a result, the presence of noise trading and speculative bubbles is suspected.
Neokosmidis (2009)	Six years' data fromMarch 2003 to March 2009 for four US stock indices i.e., DOWJONES, NASDAQ, NYSE, S & P500	ARCH, GARCH (1, 1), EGARCH (1, 1) Multivariate volatility models	The study concludes that EGARCH model is that best fitted process for all the sample data based on AIC minimum criterion. It is observed that there are high volatility periods at the beginning and at the end of our estimation period for all stock indices.
Tripathy & Alana (2010)	Daily OHLC values of NSE index returns from 2005-2008	Rolling window moving average estimator, EWMA, GARCH models, Extreme value indicators, and Volatility index (VIX)	A GARCH and VIX models, proved to be the best methods. Extreme value models fail to perform because of low frequency data.

Liu & Hung (2010)	Taiwanese stock index futures prices, daily data April 2001 to December 2008	GARCH type models: GARCH, GJR-GARCH, QGARCH, EGARCH, IGARCH, CGARCH	They demonstrate that the EGARCH model provides the most accurate daily volatility forecasts, while the performances of the standard GARCH model and the GARCH models with highly persistent and long-memory characteristics are relatively poor.
Maniya and Magnnsson (2010)	Five stock indices: S&P 500, NIKKE 225, KSE 100, BSE 30, Hang seng. Daily closing Index and data from January 1989 to December 2009	ARCH, GARCH models GARCH-BEKK model correlation, unit root tests, granger-causality test	Time varying correlation increases in bearish spells whereas bullish periods do not have a big "Statistical" impact on correlation.
Joshi (2010)	Daily closing price from January 2005 to May 2009	BDS Test, ARCH-LM test, and GARCH (1, 1) model	Persistence of volatility is more than Indian stock market
Princ (2010)	Daily returns of Prague stock exchange Index and other 11 major stock indices during 1994 to 2009	DCC-MVGARCH model	The study found an existence of increasing trend in conditional correlations among a whole European region. Results show the unidirectional influence of foreign markets affecting Czech market.
Yong et al. (2011)	daily data of Japanese stock over the study period 1994-2007	BEKK-GARCH model	They found that news shocks in the Japanese currency market account for volatility transmission in eight of the ten industrial sectors considered. They also found that significant asymmetric effects in five of these industries.
Athukoralalage (2011)	Weekly stock market data of Australia, Singapore, UK, US for the period from Jan 1992 to June 2010	M-GARCH Model, Diagonal BEKK model ARCH and GARCH techniques	Positive return spillover effects are only unidirectional and run from both US and UK (the bigger markets) to Australia and Singapore (the smaller markets). Shocks arising from the US market can impact on all of the other markets in the sample.
Kouki et al. (2011)	Five sectors daily data covering period from January 2002 to October 2009	VAR Framework one lag, BEKK (1, 1) model	International financial markets are not integrated in all the sectors. Results find that three highly integrated sectors; bank, real estate and oil.
Wong & Cheung (2011)	Hong Kong stock market from 1984 to 2009	GARCH family models	The EGARCH and AGARCH models can detect the asymmetric effect well in response to both good news and bad news. By comparing different GARCH models, they find that it is the EGARCH model that best fits the Hong Kong case.

Chang et al. (2011)	Taiwan Stock Exchange (TAIEX), the S&P 500 Index, and the NASDAQ Composite Index for the period of January, 2000 to January, 2004	GJR-GARCH model (1, 1)	There is a significant price transmission effect and volatility asymmetry among the TAIEX, the US spot index and the US index futures.
Walid et al. (2011)	The weekly closing stock indexes and local currency and exchange rates used for four emerging markets, data from December 1994 to March 2009	Markov-Switching-EGARCH model	Results provide strong evidence that the relationship between stock and foreign exchange market is regime dependent and stock price volatility responds asymmetrically to events in the foreign exchange market.
Koutmos (2012)	Shanghai stock exchange Ten industries sector indices daily data ranging from January 2009 to June 2012	Volatility estimation AR (1) EGARCH (1, 1)	Time varying beta risk of industry sector indices in Shanghai stock Results industries respond positively to rises in such non-diversifiable risk. Reports on the volatility persistence of the various industry sectors and identifies which industries have high and low persistence.
Chen (2012)	New York, London and Tokyo as well as those of Hong Kong, Shanghai and Shenzen the period of January 1993 to March 2010	Granger causality test, VAR model, VEC model, Variance decomposition, Impulse response function, Co-integration and GARCH models	Evidence shows that five stock markets are in the process of increasing integration. The periodic break down of co-integrating relationship is advantageous to foreign investors.
Abdalla & Suliman(2012)	Saudi stock market by using (Tadawul All Share Index; TASI) over theperiod of January 2007 to November 2011	GARCH (1, 1) model, including both symmetric and asymmetric models	The results provide evidence of the existence of a positive risk premium, which supports the positive correlation hypothesis between volatility and the expected stock returns.
Maheshchandra (2012)	Daily closing price of BSE and NSE stock indices period of January 2008 to August 2011	ARFIMA and FIGARCH models	Absence of long memory in return series of the Indian stock market. Strong evidence of long memory in conditional variance of stock indices.
Li & Wang (2013)	China stock indices, six industry indexes, January 2006 to June 2012	ARMA and GARCH family model, GARCH (1, 1), TGARCH (1, 1), EGARCH (1, 1)	The paper examined the leverage effect and information symmetry. Both ARCH and GARCH models can explain volatility clustering phenomena and have been quite successful in modeling real data in various applications.

Katzke (2013)	Daily closing prices of six largest industrial sector composite total return indices during January 2002 to April 2013	AR (1) model, MV-GARCH models, DCC models, VECH and BEKK techniques, and GJR-GARCH model	The results show that global and domestic economic uncertainty as well as local asset market segment significantly influences both the short run dynamics and the aggregate level of co- movement between local sector pairs.
Hou (2013)	Daily closing prices of the SHCI and SZCI indices from January 1997 to August 2007	Parametric GARCH family models	An asymmetric effect of negative news exists in the Chinese stock markets. The EGARCH and the GJR models tend to overestimate the volatility and returns in the high-volatility periods.
Purohit et al. (2014)	Daily closing data for November 2009 to March 2013, NIFTY and NIFTY Junior indices	ADF Test, Johansen's co-integration test, and GARCH (1, 1) model	Empirical results found that one-month futures do not bring volatility in the VIX.
Shalini (2014)	Daily data of sectoral indices for the period of January 2001 to June 2014	ARMA (1, 1), and GARCH (1, 1) models	Return of the BSE sectoral indices exhibit characteristics of normality, stationarity and heteroscedasticity.
Ghorbel and Attafi (2014)	MENA stock market indices of daily observations for the period January 2007 to March 2012	GARCH family models	MENA region's markets are higher between extremes than between ordinary observations registered during normal periods, but they offer many opportunities to investors to diversify their portfolio and reduce their degree of risk aversion. Dependence between markets increases during volatile periods.
Joshi (2014)	BSE Sensex dailydata from January 2010 to July 2014	GARCH (1, 1), EGARCH (1, 1), and GJR-GARCH (1, 1) models	Stock market exhibits the persistence of volatility, mean reversion behavior and volatility clustering. The results show the presence of leverage effect implying impact of good and bad news is not name.
Gupta et al. (2014)	The daily closing prices of S&P CNX500 of National Stock Exchange for the period from January 2003 to December 2012	GARCH, TGARCH and EGARCH models	The result of that volatility varies over time and constant variance assumption is inconsistent. The empirical evidence indicated the presence of time varying volatility.
Nadhem et al. (2015)	S&P500 market daily returns the sample period from July 1996 to May 2006	GARCH family models	Results of ANN models will be compared with time series model using GARCH family models. The use of the novel model for conditional stock markets returns volatility can handle the vast amount of nonlinear data, simulate their relationship and give a moderate solution for the hard problem.

Banumathy & Azhagaiah (2015)	The daily closing prices of S&P CNX Nifty Index for the period from January 2003 to December 2012	Both symmetric and asymmetric models GARCH (1, 1)	The result proves that GARCH (1,1) and TGARCH (1,1) estimations are found to be most appropriate model to capture the symmetric and asymmetric volatility respectively.
Okičić (2015)	Central and Eastern Europe region for the period from October 2005 to December 2013	Both symmetric and asymmetric GARCH models, i.e.; GARCH, IGARCH, EGARCH, GJR and PGARCH	Study indicate that existence of the leverage effect in case of stock markets from the CEE region, which indicates that negative shocks increase the volatility more than positive shocks.
Lum and Islam (2016)	Australian share markets data for the period of January 1988 to December 2004	GARCH family models	Findings support asymmetric effects in the Australian share markets, and by incorporating them into the GARCH-M models yield better results in both financial and econometric terms.
Jebran and Iqbal (2016)	Asian countries, i.e., Pakistan, India, Sri Lanka, China, Japan, and Hong Kong. The daily data was considered from the period January 1999 to January 2014	GARCH model	Result revealed absence of any spillover effect of volatility across Indian and Chinese stock markets. However, bidirectional and unidirectional spillover effects have been established across other Asian markets.
Yang et al. (2016)	CSI 300 index consider for the period of July 2013 to January 2016	GARCH, EGARCH, APARCH and PTTGARCH model	The PTTGARCH models both with single regime and Markov regime switching outperform the other models in estimation and prediction of the volatilities of the return series within the sample and out-of-sample.
Varughese and Mathew (2017)	India stock market daily data for the period of April 2003 to March 2015	GARCH, EGARCH, TARCH	The existence of volatility clustering and leverage effect in the market and the investment activities of foreign portfolio investment have had a significant impact on the volatility of stock market.
Peng et al. (2017)	TAIEX and Nikkei from both indices over the period of January, 2000 to March, 2016	Bi- EGARCH model	The past returns on NIKKEI influenced significantly current period returns of TAIEX, yet there was no such influence flowing from past returns of TAIEX to the current returns on NIKKEI index. Further, the two stock markets are more sensitive to falling rather than rising trends of each other, implying that there is a mutual tendency between these markets to crash due to a retreat in the counterpart market.

Pati et al. (2017)	India NIFTY Volatility Index (IVIX) and CNX NIFTY Index (NIFTY), Australia S&P/ASX 200 Volatility Index (AVIX) and S&P/ASX 200 Index (ASX), and Hong Kong Hang Seng Volatility Index (VHSI) and HSI, consider the period of January 2008 to July 2016	GARCH family models	The study finds that volatility index is a biased forecast but possesses relevant information in explaining future realized volatility. GARCH family models suggest that it contains relevant information in describing the volatility process.
Bhowmik et al. (2018)	Emerging six Asian stock markets daily stock market index data from January 2002 to December 2016	GARCH model, Granger Causality Tests and VAR model	The volatility and return spillovers behave very differently over time, during the pre-crisis, crisis, and post crisis periods. Importantly, Asian emerging stock markets interaction is less before the global financial crisis period.
Kim and Lee (2018)	Daily negative returns of the Google's stock price and DowJones index, November 2004 to November 2016	PTTGARCH models	Article demonstrates its validity through a simulation study and real data analysis. The result indicates that for practical applications, the underlying innovation distribution should be modeled in a more refined manner.
Amudha and Muthukamu (2018)	NSE from the period of April 2003 to September 2015	GARCH family models	The findings reported an evidence of volatility, which exhibited the clustering and persistence of stocks. The return series of the stocks selected for the study were found to react on the good and bad news asymmetrically.
Chronopoulos et al. (2018)	US stock return a daily frequency S&P 500 index covering the period from January 2004 to December 2016	GARCH family models	The SVI variable exhibits the best performance among all considered models and SVI variable offers the highest gains for investors.
Fan and Di (2018)	Shanghai Composite Index and the exchange rate of Chinese RMB against the US dollar, from January 2004 to November 2016	GARCH family models	The best model is GARCH (1,1) and the asymmetric effect is not significant.
Bhowmik and Wang (2018)	BSE 30, SSE composite, DSEX, FBMKLCI, PSEi, KOSPI indices data of daily closing prices for the period of January 2007 to 2016	GARCH family models and VAR model	The returns and volatility linkages exist between the emerging Asia and the developed stock markets. The volatilities to unexpected shocks in various markets, especially, come from neighboring country markets and more developed country markets.

Wang et al. (2019)	High frequency data, stock market policies issued related news, January 2014 to August 2015	GARCH-M and EGARCH-M models	The results show that China's stock market was mainly driven by government policies rather than economic fundamentals, as measured by GDP, PPI, and PMI.
Shanthi and Thamilselvan (2019)	Nifty 50 and BSE Sensex daily data from both indices over the period of January 1995 to December 2015	GARCH, TGARCH, EGARCH models	The study indicates that symmetric information is not suitable for certain period considered in this study. The TGARCH model outperformed all the models due to the information availability.
Bhowmik and Wang (2019)	The data consists of daily, weekly, and monthly closing prices of six emerging stock market indexes in Asian countries from the period of 2007 to 2016	Unit root tests, serial correlation test, runs test, VR tests, ARMA, GARCH model, and BDS test	Study suggests that none of the sample Asian emerging stock markets follow Random-walk and hence all are weak-form efficient markets except South Korean Markets. Additionally, short-term variants of the technical trading rules have better predictive ability than long-term variants.
Dixit and Agrawal (2019)	BSE and NSE daily data of the closing value from April 2011 to March 2017	GARCH family models	The study suggested that P-GARCH model is most suitable to predict and forecast the stock market volatility for BSE and NSE markets.
Kumar and Biswal (2019)	Brazil, India, Indonesia and Pakistan stock markets return of the average price (open, close, high, and low) for January 2014 to October 2018	GARCH family models	The result confirms the presence of volatility clustering and leverage effect that is the good news affects the future stock market than bad news.

A literature review must be necessary for scholars, academics and practitioners. However, assessing various kinds of literature reviews can be challenging. No matter how outstanding and demanding the literature review article, if it does not give sufficient of a contribution, something that is latest, it will not be published. Too often, literature reviews are fairly descriptive overviews of research carry out among particular years, draw such data as the number of articles published, subject matter covered, authors represented, and maybe methods used, without conducting any deeper investigation. However, conducting a literature review and examine its standard can be challenging, which is why this article provide some rigorous literature reviews and, in the long run, simply for better research.

4. Conclusion

Working a literature review is hard work. This paper presents a comprehensive literature has mainly focused on studies on return and volatility of stock market using systematic review methods on various financial markets around the world stock markets. We offer the raw data from the literature together with explanations of this data and key fundamental concepts.

Stock market return and volatility analysis is a relatively very important and emerging field of the research. There have been a large number of

researches on financial market volatility and return because of increasing easily accessibility and availability of researchable data and computing capability. Altogether research papers were selected by systematic analysis for the purpose of volatility and return analysis and review. The popularity of various ARCH family models has increased in the in recent times. To sum up, reviewed papers few scholars suggest that GARCH family model combined with another statistical technique yield better results. Additionally, few researchers using multivariate GARCH model statistical techniques for analysis the market volatility and returns, they show that a more accurate and better results found by multivariate GARCH family models. Asymmetric GARCH models, for instance and like, EGARCH, GJR GARCH and TGARCH etc. have been introduced to capture effect of bad news on the change in volatility of stock returns. This study all though it is short and particular attempts to give the scholar a concept of different methods found in this systematic literature review.

Whenever there is assurance that the scholars are built on high accuracy, it will be plentiful easier to recognize genuine research gaps instead of merely conducting the same research again and again, to progress better and more appropriate hypotheses and research questions, and, consequently, to raise the standard of research for the future generation. This study actually will be beneficial for the researchers, scholars, stock exchanges, the regulators, government, investors and other concerned parties. The current study also contributes the scope for further research in the area of stock volatility and returns. The content analysis can be executed taking the literature of last decades. It is determined that a lot of methodologies like GARCH models, Johansen models, VECM, Impulse response functions, Granger causality tests are practiced broadly in examining the stock market volatility and return analysis across countries and also among sectors with in a country.

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