AN EMPIRICAL STUDY ON EFFECT OF OIL PRICES ON SELECTED BLUE-CHIP COMPANIES IN NSE DURING 2014-2019

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ABSTRACT

This paper is directed towards a study as to how crude oil prices affect some blue-chip companies listed in NSE. It is important to understand whether crude oil prices cause volatility in some blue-chip stock prices, as the blue-chip companies are major driving forces behind the growth of economy. Secondary source of data is being used in this research. The indicators considered for the study are Stock prices of blue-chip companies listed in NSE. The data is collected for a period of 5 year i.e., 2014–2019. Granger causality test is used to determine whether crude oil prices cause volatility in blue chip stock prices. As per the results, it was found that variation in stock prices of ITC and ONGC causes volatility in crude oil prices whereas variation in crude oil prices causes volatility in stock prices of ICICI Bank. It was also found that variation in crude oil prices does not cause volatility in stock prices of other blue-chip companies. Investors should focus on crude oil price volatility before buying ICICI stock. Special focus should be given on health of ONGC and ITC as volatility in their prices causes volatility in crude oil price.

Keywords: Crude oil prices, Blue-chip companies, NSE (National Stock Exchange), Stock price volatility, Granger causality test.

LITERATURE REVIEW

Obi, B., Oluseyi, A. S., & Evans, O. (2018). Impact of Oil Price Shocks on Stock Market Prices Volatility in Nigeria:

Oil price variation forecasts stock market prices and is one of the reasons that is the cause for instability. But, the link between the two is not always nonlinear therefore, this study checks the effect of oil price shocks on stock market prices instability in Nigeria using non-linear autoregressive distributed lag (NARDL) model to describe

the long-run and short-run non-linear links between oil price shocks and stock prices instability with a quarterly time series data between 1986 and 2016. The oil price shocks effect was not aggregated into oil supply, oil demand and oil specific demand shocks; Along with this these were also divided to their positive and negative effects. The outcome from the empirical analysis explains that there is long run link among the variables and positive crude oil price shocks in its various forms exert positive and notable impact on the instability of stock prices in the long run and short run except for oil supply shock that have negative effect in the long run, along with this negative oil price shocks exert negative impact on the instability of stock prices in the short run and long run. But, the outcome of the asymmetric test using Wald test shows that the positive impact of these shocks on instability of stock prices differs in the short run and long run. Hence, the results from the study support the presence of nonlinear link between oil price shocks and stock price instability in Nigeria.

Eraslan, S., & Ali, F. M. (2018). Oil price shocks and stock return volatility:
In this study instability impulse response analysis is estimated from the bivariate GARCHBEKK model to quantify the size and the perseverance of different types of oil price shocks on stock return instability and the covariance between oil price changes and stock returns for a broad scope of net oil-importing and oil-exporting countries. It can be seen from the results that preventive demand followed by gross demand-side shocks, compared to supply-side ones, have higher positive and tireless effects on the conditional variances of stock returns for all countries. Moreover, we show that preventive demand shocks, unlike the other types of shocks, generally influence the covariances between oil price changes and stock returns; their influence being negative for all countries except China, Norway and Russia, where, they are positive.

RESEARCH METHODOLOGY

Type of research: Empirical Research

This analysis uses empirical Research, which involves using empirical evidence, obtaining knowledge with the help of indirect and direct experience or observation. Empirical evidence can be studied quantitatively and qualitatively. The significant motivation behind empirical research is the methodology i.e. an investigator has a certain theory with respect to the topic under research. Depending on the theory, hypotheses will be suggested, based on these hypotheses, forecasts about specific

matters are extracted. These forecasts can then be assessed with a suitable experiment. Based on the results of the experiment, the theory on which the hypotheses and forecasts were derived will be backed or not, or may need to be customized and then subjected to further assessment.

- Sampling unit: Blue chip stocks registered under NSE in India

- Data type: Secondary data

- Data source: www.nseindia.comand www.mcxindia.com

- Statistical tool: Bar graph.

- Analytical techniques: Unit root test and Granger causality test

- Software tool: Eviews

  Limitations

- The analysis is limited to just 5 years data of blue-chip stock.

- The study limits in usage of few Analytical techniques like Unit root test and Granger causality test.

- The present analysis is based on secondary data only.

DATA ANALYSIS AND INTERPRETATION

Crude Oil

- **Unit root test**

- 4.3.1 Table of unit root test of oil

Null Hypothesis: D(OIL_PRICE) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=22)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-38.78132	0.0000
Test critical values:	1% level	-3.435462	
	5% level	-2.863685	
	10% level	-2.567962	
*MacKinnon (1996) one-sided p-values.			

- **Interpretation and Inference**

- The Null Hypothesis that the above data has a unit root cannot be rejected for raw data as the probability is more than 5% when the unit root test is performed, hence first difference of the data is taken and unit root test is performed and the Null

Hypothesis that the above data has a unit root can be rejected as the probability is less than 5%, thus stationary data is obtained.

- It can be concluded that unit root does not exist and the data is stationary.

TCS

- **Unit root test**

- 4.4.1 Table of unit root test of TCS

Null Hypothesis: TCS has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=22)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.445844	0.0097
Test critical values:	1% level	-3.435458	
	5% level	-2.863683	
	10% level	-2.567961	
*MacKinnon (1996) one-sided p-values.			

- **Interpretation and Inference**

- The Null Hypothesis that the above data has a unit root can be rejected for raw data as the probability is less than 5% when the unit root test is performed, thus stationary data is obtained.

- It can be concluded that unit root does not exist and the data is stationary.

- **Granger casuality test**

- 4.4.2 Table of Granger casuality test of TCS with lag2

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause TCS	1227	3.52976	0.0296
TCS does not Granger Cause OILD1		0.18463	0.8314

- **Interpretation and Inference**

- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data can be rejected as the probability is less than 5%.

- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in Oil prices cause volatility in TCS stock prices but variation in TCS stock prices does not cause volatility in oil prices.
- 4.4.3Table of Granger casuality test of TCS with lag4

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 4			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause TCS	1225	2.36822	0.0509
TCS does not Granger Cause OILD1		1.74848	0.1370

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in oil prices does not cause volatility in TCS stock prices and variation in TCS stock prices does not cause volatility in oil prices.
- 4.4.4 Table of Granger casuality test of TCS with lag6

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 6			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause TCS	1223	1.71635	0.1137
TCS does not Granger Cause OILD1		1.13051	0.3421

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.

- It can be concluded that variation in oil prices does not cause volatility in TCS stock prices and variation in TCS stock prices does not cause volatility in oil prices.

- 4.4.5 Table of Granger casuality test of TCS with lag8

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 8			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause TCS	1221	1.29064	0.2442
TCS does not Granger Cause OILD1		0.98100	0.4491

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in oil prices does not cause volatility in TCS stock prices and variation in TCS stock prices does not cause volatility in oil prices.

Reliance

- **Unit root test**
- 4.5.1 Table of unit root test of reliance

Null Hypothesis: Reliance has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=22)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.026719	0.0328
Test critical values:	1% level	-3.435458	
	5% level	-2.863685	
	10% level	-2.567962	
*MacKinnon (1996) one-sided p-values.			

- **Interpretation and Inference**
- The Null Hypothesis that the above data has a unit root can be rejected for raw data as the probability is less than 5% when the unit root test is performed, thus stationary data is obtained.
- It can be concluded that unit root does not exist and the data is stationary.
- **Granger casuality test**
- 4.5.2 Table of Granger casuality test of reliance with lag2

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause Reliance	1227	0.21040	0.8103
Reliance does not Granger Cause OILD1		0.39397	0.6745

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in oil prices does not cause volatility in Reliance stock prices and variation in Reliance stock prices does not cause volatility in oil prices.
- 4.5.3 Table of Granger casuality test of reliance with lag4

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 4			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause Reliance	1225	0.61613	0.6511
Reliance does not Granger Cause OILD1		0.72846	0.5725

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.

- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in oil prices does not cause volatility in Reliance stock prices and variation in Reliance stock prices does not cause volatility in oil prices.
- 4.5.4 Table of Granger casuality test of reliance with lag6

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 6			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause Reliance	1223	1.08873	0.3670
Reliance does not Granger Cause OILD1		0.56664	0.7571

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in oil prices does not cause volatility in Reliance stock prices and variation in Reliance stock prices does not cause volatility in oil prices.
- 4.5.5 Table of Granger casuality test of reliance with lag8

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 8			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause Reliance	1221	0.79332	0.6086
Reliance does not Granger Cause OILD1		0.65352	0.7328

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.

- It can be concluded that variation in oil prices does not cause volatility in Reliance stock prices and variation in Reliance stock prices does not cause volatility in oil prices.

ITC

- **Unit root test**
- 4.6.1 Table of unit root test of ITC

Null Hypothesis: ITC has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=22)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-33.82492	0.0000
Test critical values:	1% level	-3.435462	
	5% level	-2.863685	
	10% level	-2.567962	
*MacKinnon (1996) one-sided p-values .			

- **Interpretation and Inference**
- The Null Hypothesis that the above data has a unit root cannot be rejected for raw data as the probability is more than 5% when the unit root test is performed, hence first difference of the data is taken and unit root test is performed and the Null Hypothesis that the above data has a unit root can be rejected as the probability is less than 5%, thus stationary data is obtained.
- It can be concluded that unit root does not exist and the data is stationary.
- **Granger Causality test**
- 4.6.2 Table of Granger casuality test of ITC with lag2

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
ITC does not Granger Cause OILD1 0.5381	1227	0.62011	
OILD1 does not Granger Cause ITC 0.3940		0.93219	

- **Interpretation and Inference**
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation ITC stock prices does not cause volatility in oil prices and oil prices variation does not cause volatility in ITC stock prices.
- 4.6.3 Table of Granger casuality test of ITC with lag4

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 4			
Null Hypothesis:	Obs	F-Statistic	Prob.
ITC does not Granger Cause OILD1 0.0417	1225	2.48895	
OILD1 does not Granger Cause ITC 0.1768		1.58155	

- **Interpretation and Inference**
- The Null Hypothesis that stock price does not Granger Cause the oil price of above data can be rejected as the probability is less than 5%.
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in ITC stock prices causes volatility in oil prices and variation in oil prices does not cause volatility in ITC stock prices.
- 4.6.4 Table of Granger casuality test of ITC with lag6

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 6			
Null Hypothesis:	Obs	F-Statistic	Prob.
ITC does not Granger Cause OILD1 0.0051	1223	3.10355	

OILD1 does not Granger Cause ITC	1.47456
0.1834	

- **Interpretation and Inference**

- The Null Hypothesis that stock price does not Granger Cause the oil price of above data can be rejected as the probability is less than 5%.

- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.

- It can be concluded that variation in ITC stock prices causes volatility in oil prices but variation in oil prices does not cause volatility in ITC stock prices.

- 4.6.5 Table of Granger casuality test of ITC with lag8

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 8			
Null Hypothesis:	Obs	F-Statistic	Prob.
ITC does not Granger Cause OILD1 0.0150	1221	2.38395	
OILD1 does not Granger Cause ITC		1.84010	
0.0659			

- **Interpretation and Inference**

- The Null Hypothesis that stock price does not Granger Cause the oil price of above data can be rejected as the probability is less than 5%.

- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.

- It can be concluded that variation in ITC stock prices causes volatility in oil prices but variation in oil prices does not cause volatility in ITC stock prices.

ONGC

- **Unit root test**

- 4.7.1 Table of unit root test of ONGC

Null Hypothesis: ONGC has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=22)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-26.51203	0.0000
Test critical values:	1% level	-3.435466	
	5% level	-2.863687	
	10% level	-2.567963	
*MacKinnon (1996) one-sided p-values.			

- **Interpretation and Inference**
- The Null Hypothesis that the above data has a unit root cannot be rejected for raw data as the probability is more than 5% when the unit root test is performed, hence first difference of the data is taken and unit root test is performed and the Null Hypothesis that the above data has a unit root can be rejected as the probability is less than 5%, thus stationary data is obtained.
- It can be concluded that unit root does not exist and the data is stationary.
- **Granger Causality test**
- 4.7.2 Table of Granger casuality test of ONGC with lag2

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ONGC	1227	0.32038	0.7259
ONGC does not Granger Cause OILD1		16.8563	6.E-08

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data can be rejected as the probability is less than 5%.
- It can be concluded that variation in oil prices does not cause volatility in ONGC stock prices but variation in ONGC stock prices causes volatility in oil prices.
- 4.7.3 Table of Granger casuality test of ONGC with lag4

Pairwise Granger Causality Tests
Date: 02/21/19Time: 20:04
Sample: 2/03/2014 2/01/2019
Lags: 4

Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ONGC	1225	0.14542	0.9650
ONGC does not Granger Cause OILD1		8.72937	6.E-07

- **Interpretation and Inference**

- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.

- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data can be rejected as the probability is less than 5%.

- It can be concluded that variation in oil prices does not cause volatility in ONGC stock prices but variation in ONGC stock prices causes volatility in oil prices.

- 4.7.4 Table of Granger casuality test of ONGC with lag6

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 6			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ONGC	1223	0.40514	0.8760
ONGC does not Granger Cause OILD1		6.43439	1.E-06

- **Interpretation and Inference**

- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.

- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data can be rejected as the probability is less than 5%.

- It can be concluded that variation in oil prices does not cause volatility in ONGC stock prices but variation in ONGC stock prices causes volatility in oil prices.

- 4.7.5 Table of Granger casuality test of ONGC with lag8

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 8			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ONGC	1221	0.80184	0.6010
ONGC does not Granger Cause OILD1		4.75923	9.E-06

- **Interpretation and Inference**

- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data cannot be rejected as the probability is more than 5%.

- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data can be rejected as the probability is less than 5%.

- It can be concluded that variation in oil prices does not cause volatility in ONGC stock prices but variation in ONGC stock prices causes volatility in oil prices.

ICICI bank

- **Unit root Test**

- 4.11.1 Table of unit root test of ICICI bank

Null Hypothesis: ICICI bank has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=22)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-35.26053	0.0000
Test critical values:	1% level	-3.435462	
	5% level	-2.863685	
	10% level	-2.567962	
*MacKinnon (1996) one-sided p-values.			

- **Interpretation and Inference**

- The Null Hypothesis that the above data has a unit root cannot be rejected for raw data as the probability is more than 5% when the unit root test is performed, hence first difference of the data is taken and unit root test is performed and the Null Hypothesis that the above data has a unit root can be rejected as the probability is less than 5%, thus stationary data is obtained.

- It can be concluded that unit root does not exist and the data is stationary.

- **Granger Causality Test**

- 4.11.2 Table of Granger casuality test of ICICI bank with lag2

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.

Null Hypothesis	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ICICI bank	1227	15.8164	2.E-07
ICICI bank does not Granger Cause OILD1		0.00029	0.9997

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data can be rejected as the probability is less than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in Oil prices cause volatility in ICICI stock prices but variation in ICICI stock prices does not cause volatility in oil prices.
- 4.11.3 Table of Granger casuality test of ICICI bank with lag4

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 4			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ICICI bank	1225	7.93450	3.E-06
ICICI bank does not Granger Cause OILD1		1.25760	0.2848

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data can be rejected as the probability is less than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in Oil prices cause volatility in ICICI stock prices but variation in ICICI stock prices does not cause volatility in oil prices.
- 4.11.4 Table of Granger casuality test of ICICI bank with lag6

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 6			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ICICI bank	1223	5.36733	2.E-

05		
ICICI bank does not Granger Cause OILD1	1.20910	
0.2988		

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data can be rejected as the probability is less than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in Oil prices cause volatility in ICICI stock prices but variation in ICICI stock prices does not cause volatility in oil prices.
- 4.11.5 Table of Granger casuality test of ICICI bank with lag8

Pairwise Granger Causality Tests			
Date: 02/21/19Time: 20:04			
Sample: 2/03/2014 2/01/2019			
Lags: 8			
Null Hypothesis:	Obs	F-Statistic	Prob.
OILD1 does not Granger Cause ICICI bank 05	1221	4.44971	2.E-
ICICI bank does not Granger Cause OILD1 0.4599		0.96746	

- **Interpretation and Inference**
- The Null Hypothesis that Oil price does not Granger Cause the stock price of above data can be rejected as the probability is less than 5%.
- The Null Hypothesis that Stock price does not Granger Cause the Oil price of above data cannot be rejected as the probability is more than 5%.
- It can be concluded that variation in Oil prices cause volatility in ICICI stock prices but variation in ICICI stock prices does not cause volatility in oil prices.

SUGGESTIONS

- The statistical importance of oil price in India in the long-run shows that movement of blue-chip stock ICICI BANK in India is sensitive to crude oil prices. Hence, investors are guided in their investment decision making.
- Another suggestion based on this finding is that government has to provide special focus to ONGC as the variation in the price of ONGC stocks impacts oil

prices in India. Hence care showed be taken to see that company is in good health. In addition, government should also closely monitor the performance of ITC company as variation in its stock prices also cause oil price volatility.

CONCLUSIONS

- There is no clarity with respect to the influence of oil prices on performance of blue-chip stocks.

- As these organisations are leading force behind the success of Indian economy it is important to study if a commodity such as oil has an influence on Indian macro economy in broad-spectrum and blue-chip companies specifically.

- This analysis uses empirical Research, on blue chip stocks and crude oil prices whose data is secondary in nature obtained from websites such as nse india and mcx india.

- The research uses null hypothesis and alternate hypothesis to check if variation in oil prices cause volatility in stock prices.

- This research applies the Unit root test technique and Granger causality test to investigate whether oil price shocks have an impact on blue chip stocks listed in NSE.

- The results of the research suggest that oil price as a factor affects blue chip stock prices of ICICI Bank listed in NSE in the long-run.

- However, there is no impact on blue chip stocks listed in nse such as TCS, Reliance.

- It should also be noted that research also suggests, variation in ITC and ONGC stock   prices   affect   crude   oil   prices   in   India

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