
DOES OIL PRICE TRANSMITS TO EMERGING STOCK MARKET RETURNS: A CASE OF PAK, INDIA & CHINA

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Abstract

Price of oil has an impact on the profit and loss of the company as oil is direct or indirect cost of operation. Therefore, the rise in crude oil prices will be expected to cause the decrease in revenue, which resulted in a reduction of immediate stock prices. The objective of the research is to get accurate answers of research questions mentioned in specific contexts of Pakistan, India and China. This paper used regression, Durbin Watson test and correlation analysis to find out the answers of research questions and objectives. The period of study is 15 years (From 2001 to 2015) of both dependent and independent variables (EPS and oil prices). Analyzing the results, it could be seen that the model is perfectly fitted to the regression analysis. In all cases of these three countries' selected companies there is positive relationship between oil prices and earnings per share (in case of China and India there is strong correlation and moderate in case of Pakistan). We can say increasing the oil prices in the market will increase the stock return and decreasing the oil prices would decrease the stock return. In all three cases there is positive correlation among the variables defined as oil prices and EPS.

Keywords: Oil prices, Earnings per share, Stock market return and Stock price

Introduction:

Price of oil has an impact on the profit and loss of the company as oil is direct or indirect cost of operations. Therefore, the rise in crude oil prices will be expected to cause the decrease in revenue, which resulted in a reduction of immediate stock prices. If the stock market is inefficient, there is a possibility to receive a slow return's impact of stock. Therefore, the oil has a strong cooperation with every country's financial markets and also one of the most important macro-economic factors. Pakistan's stock market had actively

reacted to changes in oil prices in 1991-1993, but political instability and uncertain investment environment hearted attempts to develop the stock market in the country (Arif & Khalid, 2015).

Regulatory policy may be necessary in order to reduce the potential negative impact on the domestic economy (Gelos & Sashay, 2001). Pakistan has introduced a regulatory policy in 2003, in order to control the negative impact on Pakistan's economy. The government of Pakistan changes the oil price once in a month depending on the price change at international level crude oil prices.

Following sections have been organized as; first chapter explained detailed introduction, second chapter reviewed literature, third chapter explains the econometric methodology. The forth chapter shows the experimental results, summary and conclusion (Alam, 2004).

Crude oil prices have continually increased from 2003, which had reached the peak of \$ S137 / barrel in July 2008; it is set in the downward trend after 2008. Since 1970s, it was the fifth main negative oil shock. The first one shock was from 1973 to 1974, as a result of the oil embargo of OPEC, second shock in 1978-79, when OPEC put a constraint on production. While Iran Iraq war had shared upward flow of crude oil prices and this was continued until the mid-1980s. But Saudi Arabia increased its crude oil production in 1986 to decline oil prices. In 1990, Iraqi invasion of Kuwait resulted to another price shock and as a result of the Asian financial crisis and recession in the year. OPEC again limiting its production led to another price shock in 1999-2000. Final crude oil price shock take off in 2003, and continued until July 2008. In other words, crude oil prices have always remained quite volatile. These shock, have raised serious concern among policy makers around the world (Arif & Khalid, 2015).

High oil prices negatively impact on developing countries and are dependent on imported oil, as it is the more energy-intensive (inefficient use of energy) on the other hand, generally it is believed to be more stringent in developed countries (Davis & Haltiwanger, 2004) and (Malik, 2007).

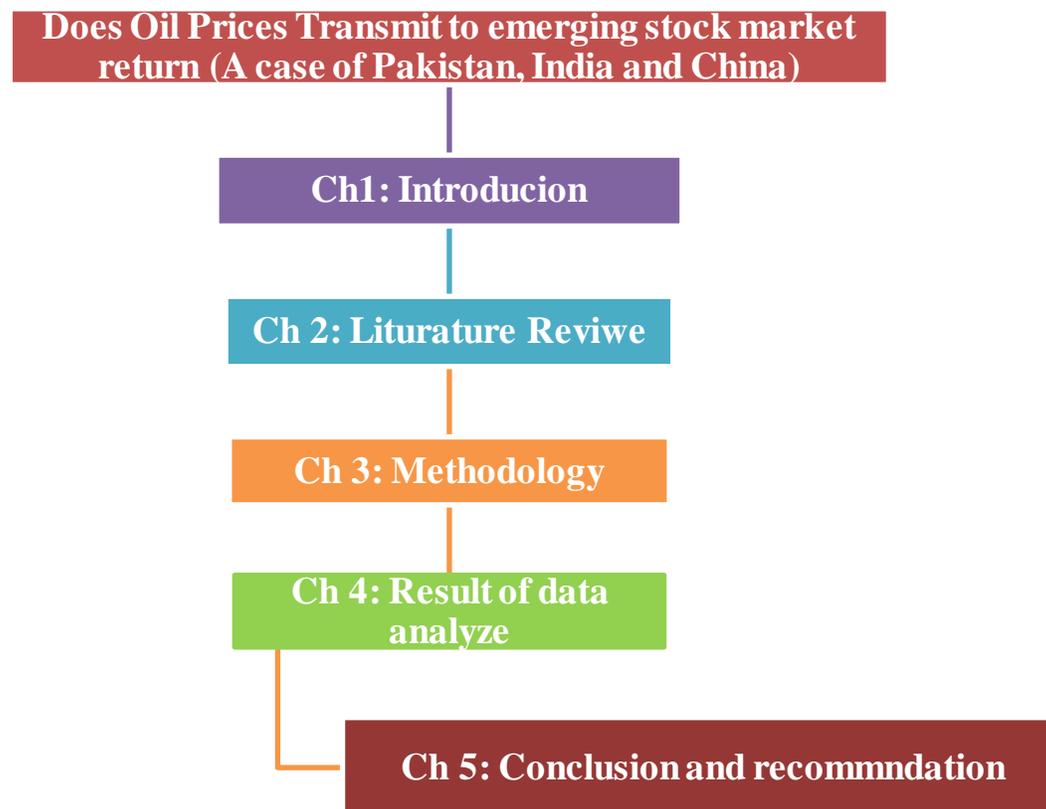
High oil prices are dealing with severe macroeconomic adjustment country is running a very large deficit of foreign exchange reserves. The goal in this paper is to shed light on the nature of the impact of the oil shock in the macro economic situation for Pakistan. You can use the open economy to analyze the impact of crude oil price in Pakistan on output growth. In this paper, the State Bank is pursuing the inflation target implementing the monetary policy in order to maintain the growth of output and price stability functioning along with the function of monetary policy on the estimation (Ayadi, Speak, & Obi, 2000).

Objectives of the research

The objective of the research is to get accurate answers of research questions mentioned in specific contexts of Pakistan. Is oil prices and stock price related? This is the first question that will confirm the relationship; there may be positive or negative relationship, if relationship exists than it will be yes to answer the question. The second objective of the research is to find out the answer of this question if oil prices declines what will be the impact on stock price? There may be decline in oil prices and it may increase the stock prices, its one possibility on the other hand there may be decrease in stock price with decrease in oil prices.

Gap statement

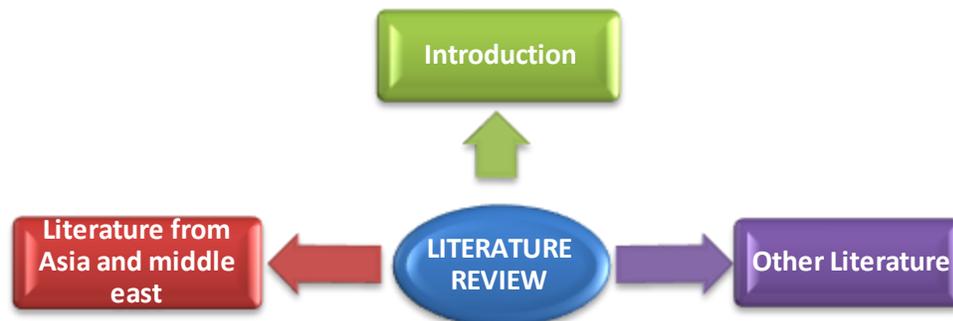
In various countries of the world, a lot of research has been done with the movement of the stock prices. Studying this analysis there is no work done in this term of office of time period by any researcher on Pakistan, India and China (from 2001 to 2015), on crude oil prices and earning of company.



Literature review

This section explains the methods and techniques used by different researchers while studying the same topic or topic likewise. This section gives the accurate idea about different types of methodologies and results. This portion gives the idea about:

- Objective of research (Purpose of researcher and which area he/she try to focus),
- Time Frame (Which year the research held and time duration of data used etc)
- Location (Countries), Method used for research
- The usage of different techniques and tools for research methodology and
- Findings



Nundha and Hammoudeh (2007) examined the relationship between the beta risk, between the period of 1994 and 2004, for the 15 countries of the Asian Pacific Ocean region, using the data of international factor model. They realized the return of stock in the presence of sensitivity of oil prices. Unlimitedly they used vector auto regression (VAR) model (Nandha & Hammoudeh, 2007).

Huang et al. (2006) showed the positive important links between the changes in stock returns and oil prices to some of the United States oil company. However, they did not find

the evidence of the relationship between the market index such as the S & P500 and crude oil prices (Huang, Jafe, & Simond, 2006).

In contrast, Sandusky (1999) applied the unlimited VAR models with GARCH effect in the United States on monthly data and found a negative significant relationship between the crude oil price changes and aggregate stock returns (Sandusky, 1999).

Using VAR model, Papapetrou (2001) showed a significant negative relationship between fluctuations of stock market return and oil prices of Greece. More recently, some of the works have focused on emerging markets of Asia, Europe and Latin America, as crude oil price changes and emerging stock market return long-term relationship. Specifically, the relevant literature is used to generate a mixed view on the impact of oil price shocks to assets like stock price (Papapetrou, 2001). Papapetrou (2001) have reported that it have a negative impact on the stock because crude oil price shock affect the negative output and growth of employment (Papapetrou, 2001).

Lescaroux and Mignon (2008) have studied the relationship between oil and stock prices for the large panel of developed countries and emerging economies. They find some evidence of positive causal relationship from the price of crude oil to the stock price in some GCC countries. This result show that crude oil price have insignificant impact on the stock market return (Lescaroux & Mignon, 2008).

Wassal (2005) used the Johansen co-integration technology in order to show macroeconomic indicators of the number of oil exporting countries, the presence of a long-term relationship between the number of indicators of stock market such as liquidity and size of stock market (Wassal, 2005).

Nunda and Gaff (2008) found a negative impact on stock returns the rise in the price of oil, in sectors of mining, oil and gas industry. Empirical evidence provided by them determine the role in crude oil prices to profitability of the transport sector for developed countries, in the transportation sector in the Asia-Pacific Ocean region's emerging countries and Latin American countries (Nunda & Gaff, 2008).

Huang (2006) used the VAR approach to investigate the US S&P 500 stock index at various levels. They are, in between the crude oil futures and a wide range-based stock index; they provide that the enterprise level to discover the important relationship but there was no relationship. (Huang, 2006).

Research Methodology

In chapter 2 have discussed literature review from different articles to find out the results of our study regarding the relationship between crude oil prices and earnings per share of companies from China India and Pakistan. This chapter will discuss the methods to find results of the study.

Variables of research

Two types of variables were used on these three countries like, India, China and Pakistan.

Dependent variables

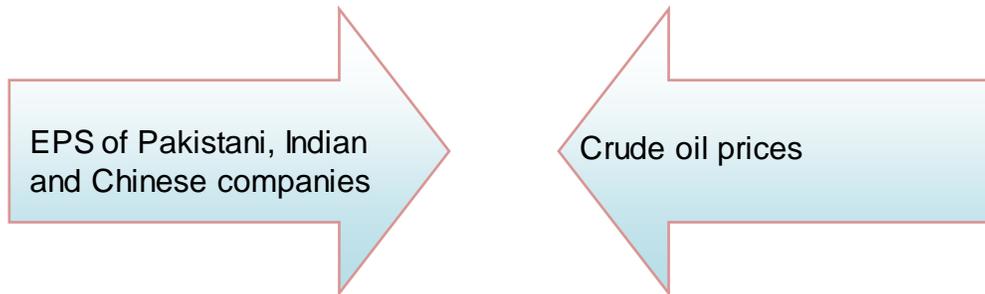
EPS of Pakistani automobile companies

EPS of Indian automobile companies

EPS of Chinese automobile companies

Independent variables

Crude oil prices in these three countries are independent variable



Sample of Research

McSweeney and Worthington (2008) used crude oil prices for the period 1973-2006 with stock market returns. The sample of the research will consist of Earnings per share of randomly selected ten companies from each country and crude oil prices in USD (United States Dollar, Data will be taken for last 15 years as Hammoudeh (2004) and Choi and Hammoudeh (2010) determined the macroeconomic variables and developed the model with yearly data. Gasser and Goodwin (2006) used for the period of 1980-2004 yearly on effective oil prices and stock prices. This study adopted the methods of these writers using data period from 2001 to 2015. Data of oil prices has been taken as yearly average value. Companies selected on the base of random sampling have been listed in appendix.



Research tools

Statistical Tools will be correlation analysis, linear regression analysis and Durbin Watson test to measure the relationship between variables. The study area of this research work is China, India and Pakistan, where companies listed under stock exchange will be studied. It is contended by Park (2008) and Bar and Nikolova (2010); Filis (2010) used linear regression method of (Lee and Butterfly 2011).

Regression

A statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables (known as independent variables),

The two basic types of regression are linear regression and multiple regressions. Linear regression uses one independent variable to explain and/or predict the outcome of Y, while multiple regressions use two or more independent variables to predict the outcome. The general form of each type of regression is:

Linear Regression: $Y = a + bX + u$

Where:

Y= the variable that we are trying to predict (*EPS*)

X= the variable that we are using to predict Y (*Oil Prices*)

a= the intercept

b= the slope

u= the regression residual

In multiple regressions, the separate variables are differentiated by using subscripted numbers.

H₀: there is NO positive correlation between dependent (Stock return) and independent (Crude oil prices) variables

H₁: there is positive correlation between dependent (Stock return) and independent (Crude oil prices) variables

$\alpha = 5\%$

Decision Criteria = Reject H₀, if P value is less than α . Or "Accept" H₀, if P value is greater than α .

The standard for analysis will depend on 95% level of significance. In results of regression if a P values is less than α . It means, if the correlation among the variables will be more than 95 than relationship will be accepted otherwise rejected.

Durbin Watson Statistic

The Durbin Watson statistic is a number that tests for autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic is always between 0 and 4, a value of 2 means that there is no autocorrelation in the sample. Values approaching 0 indicate positive autocorrelation and values toward 4 indicate negative autocorrelation. Autocorrelation can be a significant problem in analyzing historical pricing information if one does not know to look out for it. For instance, since stock prices tend not to change too radically from one day to another, the prices from one day to the next could potentially be highly correlated, even though there is little useful information in this observation. In order to avoid autocorrelation issues, the easiest solution in finance is to simply convert a series of historical prices into a series of percentage-price changes from day to day.

Analysis

Methods for Analysis

This paper is about the relationship between crude oil prices and stock market prices in China, India and Pakistan. To determine the relationship and interdependence of both types of variables, regression, Durbin Watson test and correlation analysis will tell about positive, negative, weak or strong relationship between the variables.

Correlation results

Correlation and descriptive statistics EPS of Chinese Companies and crude oil prices

Descriptive Statistics

	Mean	Std. Deviation	N
EPS China	131.907	87.4618	15
Oil Prices	71.080	31.6652	15

Correlations

		EPS China	Oil Prices
Pearson Correlation	EPS China	1.000	.925
	Oil Prices	.925	1.000
Sig. (1-tailed)	EPS China	.	.000
	Oil Prices	.000	.
N	EPS China	15	15
	Oil Prices	15	15

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Oil Prices ^b	.	Enter

a. Dependent Variable: EPS China

b. All requested variables entered.

Analyzing the correlation results, it seem that there is positive correlation among all the variables, first there is observation upon the oil prices in international market and the

earnings per share. There is positive correlation among the variable, but the results shows positive correlation, depending upon this resultant figure of 0.925 between crude oil prices and EPS of China.

Correlation and descriptive statistics on EPS of Indian Companies and crude oil prices

Descriptive Statistics

	Mean	Std. Deviation	N
EPSIND	37.773	14.4858	15
Oil Prices	71.080	31.6652	15

Correlations

		EPS IND	Oil Prices
Pearson Correlation	EPSIND	1.000	.962
	Oil Prices	.962	1.000
Sig. (1-tailed)	EPSIND	.	.000
	Oil Prices	.000	.
N	EPSIND	15	15
	Oil Prices	15	15

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Oil Prices ^b	.	Enter

a. Dependent Variable: EPSIND

b. All requested variables entered.

Analyzing this value we can say that there is positive relationship to the extent of strong positive, Depending on this value one can conclude that there is relationship exists. As a result we can say that increase in oil prices increases the stock market return of Indian companies.

Correlation and descriptive statistics on EPS of Pak companies and crude oil prices

Descriptive Statistics

	Mean	Std. Deviation	N
EPS Pak	20.053	9.0903	15
Oil Prices	71.080	31.6652	15

Correlations

		EPS Pak	Oil Prices
Pearson Correlation	EPS Pak	1.000	.668
	Oil Prices	.668	1.000
Sig. (1-tailed)	EPS Pak	.	.003
	Oil Prices	.003	.
N	EPS Pak	15	15
	Oil Prices	15	15

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Oil Prices ^b	.	Enter

a. Dependent Variable: EPS Pak

b. All requested variables entered.

Third and last, there is observation upon the oil prices in international market, and the stock prices in Karachi Stock Exchange. There is positive correlation among the variable, depending upon this resultant figure of approximately 0.66 between crude oil prices and earnings per share of Pakistani companies.

Results for regression

R-squared & Adjusted R Square

In case of China: If the adjusted R Square value is much lower than the R Square value, it is an indication that our regression equation may be *over-fitted* to the sample, and of limited

generalizing. The value of R Square and Adjusted R Square are 85.6% and 84.5%, it means explained variations are more than 85%, it is not good to have the values of R square less than 60% This also tells that how much output variable's variance is explained by the input variable's variance. The adjusted R square explains the accuracy of regression equation.

In case of Pakistan, the value of R square is 0.446 means 44.6% variation is explained. Our first indicator of generalizing is the adjusted R Square value (44.6%).

In case of India (India): Here, the value of R square is 0.925 means 92.5% variation is explained. In general, the higher the R-squared, the better the model fits your data. Our first indicator of generalizing is the adjusted R Square value (92.5%), which is adjusted for the number of variables included in the regression equation. This is used to estimate the expected shrinkage in R Square that would not generalize to the population because our solution is over-fitted to the data set by including independent variables.

After that F significance value which is approximately to zero (0.000) in all cases (Pakistan, India and China) tells that the results are not by chance, in other words there is zero probability of 'by chance' results.

Interpretation of P-Values in Linear Regression Analysis

The p-value for each term tests the null hypothesis that the coefficient is less than 5% (no effect). Here p-value is less than 5% in case of China and India, A low p-value (< 0.05) indicates that you can reject the null hypothesis. In other words, a predictor that has a low p-value is likely to be a meaningful addition to your model because changes in the predictor's value are related to changes in the response variable. In all three cases, P values are 3.1% for India and 4.6% for China, which is lower to 5%. It indicates that it is

statistically significant as it is lower than 5%, but in case of Pakistan P value is higher than 5%.

Interpretation of Durbin-Watson

According to Durbin Watson test, there correlation between variables in all three cases like China, India and Pakistan, the values of Durbin-Watson test are near to zero that represents that there is positive relationship between variables.

Summary of the results

Summarizing the output by correlation, regression and Durbin Watson test analysis that the EPS have positive correlation with crude oil prices in all three countries, taken as crude oil independent variable but the relationship is not too strong in the case of Pakistan where pvalue is greater than 5%, correlation is 0.668 and Durbin Watson results are 0.772. The case of India is not different from China; these both stock markets have positive correlation with oil prices.

Answers to research questions

Q#1 is oil prices and stock price related?

The relationship between oil prices and stock price exist in the case of all three stock exchanges analysis as results of correlation show that stock's earnings increase with increase in oil price in international markets. Correlation shows overall results relationship, regression shows impact. The third statistical test that is Durbin Watson test also shows correlation.

Q#2 if oil prices declines what will be the impact on stock price?

If the oil prices decline the stock prices will decline the same way in India and China but not in Pakistan to some extent.

Q#3 Do oil prices affect the economy of a country negatively or positively?

As per literature discussed above, changing oil prices directly impact the economy of a country negatively or positively. In this case, increasing oil prices increase the economic boost up in India and China. Generally Pakistani economy also takes pressure of changing oil prices but results shows that it is not significant.

Hypothesis statement

H_0 =there is no interdependence between crude oil prices in international market and stock prices

H_1 =there is interdependence between crude oil prices in international market and stock prices

Conclusive remarks

In case of China and India, we can say that decreasing oil prices would also decrease the stock return in these countries. Analyzing the results, it could be seen that the model is perfectly fitted to the regression analysis. Studying the results one could say that the regression analysis is best for the analysis. In case of Chinese and Indian companies it depends on the oil prices. It means these stock markets are dependent markets, we can say increasing the oil prices in the market will increase the earnings and decreasing the oil prices would decrease the stock market return. In other words we can say that oil prices transmit to the emerging stock market, *in all three cases there is positive correlation among the variables defined as oil prices and stock market return*

Shanghai Stock Exchange: reject null hypothesis saying that there is interdependence between crude oil prices in international market and earnings.

Bombay Stock Exchange: reject the null hypothesis and accept the alternate hypothesis saying that there is interdependence between crude oil prices in international market and earnings.

Karachi Stock Exchange: accept the null hypothesis saying that there is no or less interdependence between crude oil prices in international market and earning.

Recommendations

- It is recommended that oil prices must be in stable condition within the country.
- If oil prices increase in the countries, it could be analyzed that what factors effect to decrease and make stable the oil prices in the countries
- It is recommended that increasing stock prices should not be dependent on the oil prices.
- Chinese and Indian companies depends on the oil prices; it is recommended that other factors could be found that relates to the stock market return, These companies knows how to handle the pressure of oil prices increase.
- It is recommended that other stock exchange must be studied to know that results same or not? As it is clear that decreasing the oil prices does not increase the stock market return.
- As Indian and Chinese economies are growing economies, there may be comparative study upon these two countries.
- Increasing stock market return is in best conditions of any country but increasing oil prices have adverse effect on the economy of a country.

Bibliography

1. Alam, M. (2004). Crude oil shocks and stock markets returns. *Applied economics* .
2. Arif, M., & Khalid, A. (2015). *Liberalization, Growth and the Asian Financial Crisis*. Dehli: Adventure Works Press.
3. Ayadi, Speak, & Obi. (2000). The effects of oil production shock for Nigeria. *Journal of Econometrics* .
4. Davis, S., & Haltiwanger, J. (2004). Sectoral Job Creation and Destruction Responses to. *Journal of Monetary Economics* , 465-512.
5. Gelos, B., & Sashay, A. (2001). Does Oil Price Uncertainty Transmit to Stock Market ? *Uppsala University* , 50-52.
6. Huang. (2006). Striking oil: another puzzle.
7. Huang, K., Jafe, P., & Simond, A. (2006). Oil and Stock Markets. *Journal of Finance* , 463-491.
8. Lescaroux, & Mignon. (2008). Oil futures prices and stock management. *Energy Economics* , 218-223.
9. Malik, S. (2007). Stock Markets and Oil Prices . *Rotterdam School of Management Erasmus University Rotterdam* , 63-69.
10. Nandha, M., & Hammoudeh, S. (2007). Systematic risk, and oil price and exchange rate sensitivities in Asia-Pacific stock markets. *Research in International Business and Finance* , 56-59.
11. Nunda, R., & Gaff, J. (2008). Trends and random walks in macroeconomic time series: further evidence from a new approach. *Journal of Economic Dynamics and Control* , 29-36.
12. Papapetrou. (2001). Oil Price shocks, stock market, economic activity and employment in Greece. *Energy Economics* , 25-29.
13. Sandusky. (1999). Risk factors in stock returns of Canadian oil and gas companies. *Energy Economy* , 17-28.
14. Wassal, S. (2005). Risk factors in stock returns of Canadian oil and gas companies. *Journal of Monetary Economics* , 45-46.

Appendix

Companies selected on the bases of random sampling as given below:

India

1. Hero motor corp
2. Maruti Suzuki
3. Bajaj Auto
4. Mahindra & Mahindra
5. Tata Motors Limited
6. TVS motors
7. Eicher Motors
8. Force Motors
9. Ashok leyland automobiles
10. SML Isuzu

China

1. Geely autos
2. Volkswagen Car manufacturer
3. Chongqing changan automobile company limited
4. Brilliance autos
5. BAIC Group Automobile company
6. Great wall motors
7. General motors' China
8. Dongfeng motor company
9. Zhengzhou NISSAN

Pakistan

1. Pak suzuki motors
2. MILLAT TRACTORS Pakistan
3. Hino Pak
4. Indus Motors Pakistan
5. Atlas Batteries
6. Agriautos Pakistan
7. General Tyres and Rubber Company
8. Excide Batteries
9. Honda AT
10. Hinda BT

India

Descriptive Statistics

	Mean	Std. Deviation	N
EPSIND	37.773	14.4858	15
Oil Prices	71.080	31.6652	15

Correlations

		EPS IND	Oil Prices
Pearson Correlation	EPSIND	1.000	.962
	Oil Prices	.962	1.000
Sig. (1-tailed)	EPSIND	.	.000
	Oil Prices	.000	.
N	EPSIND	15	15
	Oil Prices	15	15

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Oil Prices ^b	.	Enter

a. Dependent Variable: EPSIND

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.962 ^a	.925	.919	4.1150	1.346

a. Predictors: (Constant), Oil Prices

b. Dependent Variable: EPSIND

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2717.598	1	2717.598	160.489	.000 ^b
	Residual	220.132	13	16.933		
	Total	2937.729	14			

a. Dependent Variable: EPSIND

b. Predictors: (Constant), Oil Prices

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	6.499	2.688		2.418	.031	.692	12.305
Oil Prices	.440	.035	.962	12.668	.000	.365	.515

a. Dependent Variable: EPSIND

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	17.190	52.918	37.773	13.9325	15
Residual	-7.0780	7.3021	.0000	3.9653	15
Std. Predicted Value	-1.477	1.087	.000	1.000	15
Std. Residual	-1.720	1.775	.000	.964	15

a. Dependent Variable: EPSIND

China

Descriptive Statistics

	Mean	Std. Deviation	N
EPSChina	131.907	87.4618	15
Oil Prices	71.080	31.6652	15

Correlations

		EPS China	Oil Prices
Pearson Correlation	EPS China	1.000	.925
	Oil Prices	.925	1.000
Sig. (1-tailed)	EPS China	.	.000
	Oil Prices	.000	.
N	EPS China	15	15
	Oil Prices	15	15

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Oil Prices ^b	.	Enter

a. Dependent Variable: EPS China

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.925 ^a	.856	.845	34.4438	.825

a. Predictors: (Constant), Oil Prices

b. Dependent Variable: EPS China

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91670.965	1	91670.965	77.270	.000 ^b
	Residual	15422.864	13	1186.374		
	Total	107093.829	14			

a. Dependent Variable: EPS China

b. Predictors: (Constant), Oil Prices

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-49.736	22.496		-2.211	.046	-98.336	-1.135
	Oil Prices	2.555	.291	.925	8.790	.000	1.927	3.184

a. Dependent Variable: EPS China

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	12.362	219.866	131.907	80.9193	15
Residual	-82.6442	33.6121	.0000	33.1909	15
Std. Predicted Value	-1.477	1.087	.000	1.000	15
Std. Residual	-2.399	.976	.000	.964	15

a. Dependent Variable: EPS China

Pakistan

Descriptive Statistics

	Mean	Std. Deviation	N
EPS Pak	20.053	9.0903	15
Oil Prices	71.080	31.6652	15

Correlations

		EPS Pak	Oil Prices
Pearson Correlation	EPS Pak	1.000	.668
	Oil Prices	.668	1.000
Sig. (1-tailed)	EPS Pak	.	.003
	Oil Prices	.003	.
N	EPS Pak	15	15
	Oil Prices	15	15

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Oil Prices ^b	.	Enter

a. Dependent Variable: EPS Pak

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.668 ^a	.446	.403	7.0232	.772

a. Predictors: (Constant), Oil Prices

b. Dependent Variable: EPSPak

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	515.620	1	515.620	10.453	.007 ^b
	Residual	641.237	13	49.326		
	Total	1156.857	14			

a. Dependent Variable: EPSPak

b. Predictors: (Constant), Oil Prices

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	6.431	4.587		1.402	.184	-3.479	16.340
	Oil Prices	.192	.059	.668	3.233	.007	.064	.320

a. Dependent Variable: EPSPak

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	11.088	26.650	20.053	6.0688	15
Residual	-7.8210	20.2458	.0000	6.7678	15
Std. Predicted Value	-1.477	1.087	.000	1.000	15
Std. Residual	-1.114	2.883	.000	.964	15

a. Dependent Variable: EPSPak