



## The Case Study on the Relationship Between Crude Oil Prices Stimulating the Economic Growth in Malaysia

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### ABSTRACT

The uncertainty in the crude oil prices had always become the limelight attracting attention of many individuals and businesses over time concerning on the economic condition for the country. This concerns had not become any exception for Malaysia as the developing nation where the constant rising of the crude oil prices had been viewed as the contributor towards the development of the local economic growth in the country. With this, the problem statement had been identified to study the relevance impact and relationship between the drive of the crude oil price against the growth of the real GDP (Gross Domestic Product) rate in Malaysia. The quantitative study had been designed to study the data based on the timeline from 2008 to 2020 to cover the economic cycle from the last financial crisis to recent time. The outcome of the study had provided clear evidence to reject the initial suggestion as there is not sufficient evidence to present the significant relationship between the crude oil price against the real GDP growth for the country. Therefore, the study had concluded with the irrelevance impact from the price of crude oil in affecting the economic growth in Malaysia where the future scope of study had been recommended to explore the similar study in other country as well as replacing other economic variables to understand further on the impact from crude oil prices in the economy

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## **INTRODUCTION**

The word of the crude oil price to the ongoing rate available for a barrel of natural oil, which is the incomplete item that is exhumed from the market. It fundamentally alludes to the cost at which this unrefined petroleum can be bought or sold on various wares markets all over the global economy (Talha et al., 2021). Multiple variables have added to the fluctuating cost of raw petroleum over the long haul. Unrefined petroleum value alludes to the ongoing business sector cost of a barrel of raw petrol, which is the natural substance extricated starting from the earliest stage, (Pei and Rahim, 2013). Demand and supply in the market added to the standard for deciding the crude oil cost which it fundamentally alludes to the cost at which this crude oil can be bought or sold on various wares markets all over the global market (Sek, 2020). Furthermore, the condition of the world economy straightforwardly influences how much crude oil requested. There is normally more appeal for energy, including oil, during seasons of fast financial development (Talha et al., 2020). Then again, interest for oil will in general tumble off during monetary slumps. As to, it had forever been said that the cost of raw petroleum filled in as a benchmark to decide how the country's economy would create.

The mind-boggling connection between raw petroleum costs and expansion rates can be impacted by various factors. Most of corporate costs that stream straightforwardly into utilization and creation inside the economy presently incorporate an important commitment from crude oil market (Shaari, Pei and Rahim, 2013). The development of numerous labor and products depends vigorously on oil prices which highly affect the chain in the costing. At the point when raw petroleum costs rise, creation costs for organizations rise. This can inflate costs for various merchandise that depend on oil-based inputs, for example, plastics, synthetics and transportation energizes. Moreover, rising raw petroleum costs might prompt higher transportation costs (Sek, 2020). Particularly for merchandise that depend vigorously on transportation, like food and different products, these effects the expense of delivery merchandise and can bring about greater costs for purchasers. Because of the expansion change of the country's financial circumstance, it has been shown that the expansion in production network and coordinated factors costs was the trigger for the development of rising costs (Basnet and Upadhyaya, 2015).

In any case, the idea from the significance influence from the rising cost in the rough oils in the new year's particularly the post pandemic circumstance had coming about into the expansion in the expansion over the long haul (Sek, 2021). Regardless of the idea gave, there is absence of exploration to address the ongoing review to accomplish the proof to show the critical significance relationship being exist between the cost of the raw petroleum in influencing the expansion rate inside the nearby economy (Shaari, Hussain and Abdullah, 2012). With this, the issue articulation had been started coming about into the inspiration in driving the reason and objective of the exploration which is primarily to research the possible critical in the effect from the unrefined petroleum cost impacting the expansion development in the country. For the ebb

and flow research, the review will give the particular concentration into wandering into the relevance economic growth in the nation of Malaysia.

## LITERATURE REVIEW

The idea of flagging hypothesis in financial matters and related disciplines sees how individuals or associations can impart data about themselves to other people. It suggests that when data is unbalanced when the signs can be utilized by people to close the data hole when, for instance, one party has more or preferable data over the other (Orazalin and Mahmood, 2018). With pertinence to the flagging hypothesis, the hypothesis had become critical marker inside the monetary condition where the development of the variable, for example, the raw petroleum cost had been showing the sign to address the possible expansion in the costs of the labor and products (Yasar, Martin and Kiessling, 2020). This is on the grounds that the increasing expense of the unrefined petroleum had become wellspring of effect into a wide range of costings coming about the expansion in the living expense and costs (Nur DP, 2021). The comparative point of view will be seen through the responsibility and weight as shown in the business and people where the increasing expansion rate will notice the expansion in the expansion pace of the economy (Yasar, Martin and Kiessling, 2020). Thusly, the expectations drawn from the previous studies had been giving the positive effect from the unrefined petroleum cost influencing the gradual of the financial development of the development (Orazalin and Mahmood, 2018).

In view of the past research, there are different exploration showing the huge effect from the raw petroleum costs assuming a significant part to impact the rising evaluating inside the labor and products inside the market (Hussin et al., 2013). What's more, the idea for the positive relationship being exist between the crude oil costs against the expansion rate for the economy had been demonstrate through the exhibit of the increasing expense in a wide range of products (Sek, 2017). This is upheld by the reality where the steady in the crude oil market had profoundly influencing the weight of the costing where larger part of the costing including the store network and planned operations had been set off and animated to become greater expense and costs to be caused (Sek, 2021). Thus, the past examinations had unequivocally recommended the possible effect of the expansion rate for the nearby monetary development which is set off by the rising costs of labor and products (Al-hajj, Al-Mulali and Solarin, 2018).

Furthermore, the past investigations had shown the proof that the crude oil cost had turned into the source that will become he economy trigger where the raw petroleum market had turned into the significant help for the financial development (Islam et al., 2017). Regarding the fall in the raw petroleum costs back in Coronavirus, the financial development had recorded to be negative because of the absence of the capacity for the economy to additional development in numerous nations (Sek, 2021). There is no special case in the nation of Malaysia where the downturn in the economy had come about in lined up with the fall of the petroleum costs in the country (Talha et al., 2021). The accomplishment in the dependability of the raw petroleum after some time had gradually pushing back

the financial development to the ordinary rate to advance blast in the monetary cycle (Mishra et al., 2019).

Concerning this, the rundown of the writing audit had areas of strength for presented from the past academic studies to recognize the potential positive relationship exist between the development of the crude oil cost influencing the expansion rate in the economy (Nusair and Olson, 2019). The pertinence of the unrefined petroleum market as referenced already is importance towards many costs factor inside the labor and products influencing the economy through the GDP (Gross Domestic Product) which had been the huge measure to show the improvement of the financial condition for the nation (Yousaf and Hassan, 2019). Thusly, the speculation will be created through the exploration structure recognizing the crude oil cost as the autonomous variable against the economic growth of the country as the benchmark measurement for the local economy.

**H0: The change in the crude oil is not having significant impact towards the change in the economic growth in the country**

**H1: The change in the crude oil is having significant impact towards the change in the economic growth in the country**

## **METHODOLOGY**

The flow proposed exploration will form the application into the quantitative review strategy where the quantitative examination study will notice the information input utilizing the mathematical type of information which is fitting the prerequisite for the improvement of the ongoing review (Apuke, 2017). The high ground in bringing the quantitative review strategy into the statistical output analysis is giving the advantages to objectivity in the information input through a particular timeframe permitting the perception of the example and the relationship of the factors remembered for the exploration structure (Sharela, 2016). The longitudinal review will turn into the benchmark of the exploration where the information examination through the quantitative strategy will notice the investigation through the particular timetable inside the time of study (Apuke, 2017).

The information assortment for the exploration had turned into the exploitation of the information input setting off the presence of the examination where the information will allude the quantifiable information reference to the unrefined petroleum cost and the expansion rate in Malaysia (Cooper and Schindler, 2014). The wellspring of the information will be exploit utilizing the public accessible and profoundly available information through the web-based stage where the information depends on the verifiable information from the course of events of 2008 to 2021 which had recently been gathered through the essential information market reflecting the most recent cycle of the economic growth since the Great Depression back in 2008. The objective review had been alluding into the nation of Malaysia where the understudy is focused on with the target to accomplish the critical discoveries inside the grasping on the financial advancement inside the growing country in Malaysia as the developing nation.

Continuing on, the information examination part will be noticing the utilization of the quantitative review approach and strategy involving the age of the series in measurable result. The clear investigation will turn into the initial

step on the measurable result where the graphic examination will turn into the main perception to recognize the properties of the information to signal out any anomaly of the information input assuming there is any (Saunders, Lewis and Thornhill, 2015). The connection examination will turn into the second piece of the examination for the quantitative review where the not entirely settled to investigate the relationship exist between the crude oil price and GDP growth in the economy of Malaysia (Gogtay and Thatte, 2017). Last however not the least, the quantitative examination study had continued to recognize the possible critical effect from the development of the crude oil price in affecting the GDP growth development in the Malaysian economy (Sekaran and Bougie, 2016). The result through the relapse examination and relationship investigation will act as the contribution to test for the speculation as evolved in the writing audit in the exploration review. The tolerance level of 5% will form the benchmark for the quantitative study to conclude the outcome in the research findings testing the hypothesis as developed from the initial literature review for the research study.

**Data Analysis**

Table 1. Descriptive Analysis

	<i>Crude Oil</i>	<i>Real GDP Growth</i>
Mean	0.092540308	0.0421875
Standard Error	0.103227705	0.008401497
Median	0.007369782	0.048
Standard Deviation	0.412910819	0.033605989
Sample Variance	0.170495344	0.001129363
Kurtosis	-0.778599009	4.519108069
Skewness	0.644920272	-1.941423472
Range	1.255942327	0.142
Minimum	-0.432172533	-0.055
Maximum	0.823769794	0.087
Sum	1.480644931	0.675
Count	16	16

The Table 1 started off with the descriptive analysis that come with the purpose to explore the attributes of the data input in details. The outlook from the descriptive analysis holds the main idea to assess the consistency and identify abnormality of the quantitative data if present. Based on the assessment in table 1, the information demonstrated through the descriptive analysis will be analyzing the past historical trend of the data from 2008 to 2021 based on the two variables in the study, namely, the crude oil price and GDP growth in Malaysia. The outcome in table 1 identify the comparable means and standard deviations based on the range of the data input showing no surprise in the data that could create risk for the data error from the potential abnormality of the quantitative analysis study.

Table 2. Correlation Analysis

	<i>Crude Oil</i>	<i>Real GDP Growth</i>
<i>Crude Oil</i>	1	0.424507204
<i>Real GDP Growth</i>	0.424507204	1

The Table 2 had been crucial to address the correlation analysis for the study where the correlation analysis will assist to identify the movement and direction for the two variables of data. The Pearson Correlation Coefficient is referred as the measurement for the reference on the strength of the correlation being exists between the two identified variables for the study. In this current study, the Table 2 showed the results on the correlation analysis between the crude oil price against the real GDP growth in Malaysia where the Pearson Correlation Coefficient is measured at 0.42451. The value had reflect the measurement between the Pearson Correlation Coefficient between the 0.4 to 0.6 where the quantitative study identified it as moderate strength of positive correlation between the two variables. In other words, the crude oil price and the real GDP growth is expected to be moving in the same direction in a reasonable manner and pattern.

Table 3. Regression Analysis

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
<b>Intercept</b>	0.038990251	0.00808209	4.824278025	0.000269972
<b>Crude Oil Price</b>	0.034549796	0.019694668	1.754271514	0.101236255

The Table 3 had completed the quantitative study through the demonstration of the regression analysis. The regression model constructed is based on the research framework provided where the regression analysis is targeted to test the potential relationship exist between the crude oil price against the real GDP growth in Malaysia. With reference to the regression analysis output in Table 3, the p-value recorded for the study had shown 0.10124. This means that the p-value is being higher than the 5% tolerance level benchmark which indicates lack of the evidence to support the significant relationship presence between the crude oil price against the real GDP growth in Malaysia. This means that the development of the local economy growth in the country is not likely to be depending on the change in the crude oil price in the market.

The results and findings for the study had been concluded through the quantitative method with the demonstration of the correlation analysis and regression analysis that come into the picture showing the relevance evidence to support. The outcome of the study had proven that the two variables based on the research framework had shown the existence of the moderate strength of the positive correlation suggesting that the crude oil price and the real GDP growth rate in Malaysia is likely to be in sync moving into the same direction in terms of the changes of the growth percentage. However, the regression analysis had summed up the data evidence to suggest no relevance in addressing the presence of the significant relationship between the two variables. Therefore, the quantitative findings and results had concluded that the crude oil price remained

irrelevance in affecting the change in the economic growth in Malaysia based on the historical data trend. With this, the outcome of the study will led to the rejection of the alternate hypothesis as drawn from the previous literature review in H1 and resulting into the acceptance of the null hypothesis as suggested in H0.

**H0: The change in the crude oil price is not having significant impact towards the change in the economic growth in the country**

**H1: The change in the crude oil price is having significant impact towards the change in the economic growth in the country**

## RESULT AND DISCUSSION

The results and findings had not turned up to be the expected findings in the study as the previous studies had strongly suggest the linkage between the price of the crude oil market in affecting the economy in the country. However, the current study had rejected this vie with the evidence pointing otherwise drawing the crucial address that the sole factor of the crude oil price remained not significant to influence the growth development to the country. In other words, the economic growth through the real GDP growth rate in Malaysia remained independent where the impact from the rising crude oil price will not provide any consideration to draw or predict the future growth and development of the local economy. This could be reasoning due to the many factors within the economy and financial market that could be providing significant impact towards the movement of the economic growth. In another perspective, the crude oil price could be drawing higher prices for goods and services inducing higher inflation in the economy that could not blend well into the economic growth due to the higher financial burden and commitment as well as the rising living cost that put the individuals and businesses in the country to be more conversative in the situation that could provide different impact into the economy growth in the country.

## CONCLUSION AND RECOMMENDATION

Reaching the end of the study, the research had concluded significant findings to ensure the right achievement in the objective and purpose of the research study as directed from the initial problem statement for the study. With reference to the purpose of the research, the major source of the motivation into this current study is mainly to identify new knowledge to further understand the linkage and relationship between the crude oil price against the economic growth in the country. The lack of exploration from the previous studies for the scope of interest had motivate the need for the research especially addressing the specific focus in venturing into the target study of Malaysia. The fresh insight from the outcome in the current research had significantly contributed to the world of academic where the research findings will represent future references for the future researchers to conduct relevance research scope for the field of study. This will become the inspiration for researchers to develop the opportunity to extend the research to future studies to gain additional knowledge and insight within the relevance scope of study.

Referring to the suggestion for future study, the current study did draw few highlights into the potential suggestion for future researchers to proceed into venturing to extend the academic knowledge for the field of interest. Firstly, the

price of the crude oil had been independent when comes to the demand and supply between different countries where the results and outcome in the study based on the target setting in Malaysia will not represent the overall studies for the relevance topic. Therefore, this opens the suggestion for the future research to focus into venturing into the target setting for different country like Singapore, Vietnam, Japan and Korea that could provide additional insight in drawing the understanding of the relationship between the crude oil price against the real GDP growth within the Asia region.

In addition to this, the focus of the study did propose a clear direction into the study towards the relationship between the crude oil price and the economic indicator for the country. Based on the definition of the economic indicator, there are numerous potential variables that could become good input to represent the economic measurement for the study besides the real GDP growth rate. For instance, the economic indicator like the inflation rate, income level, interest rate and even the exchange rate of the country could become part of the study which can be considered into the research framework the future study. The combination of the variables will help to unveil more understanding on the impact of the crude oil price towards the economic indicator within a particular country.

#### **FURTHER STUDY**

This research still has limitations, so it is necessary to carry out further research related to the topic *The Case Study on the Relationship Between Crude Oil Prices Stimulating the Economic Growth* in order to perfect this research and increase the reader's insight.

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