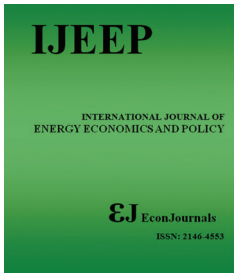

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The Impact of Global Oil Prices on Economic Performance

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ABSTRACT

Oil prices have experienced significant fluctuations over the past four decades, impacting the economies of the six Gulf Cooperation Council (GCC) countries. This study empirically investigates the effect of oil price fluctuations (OPF) on economic growth, measured by gross domestic product (GDP), production levels (PL), and employment (EMP), covering the period 1990-2020, including the economic disruptions caused by the COVID-19 pandemic and post-2020 oil market volatility. Quantitative data were collected through a structured questionnaire distributed to a representative sample of 600 economic experts and financial analysts across Bahrain, Saudi Arabia, the UAE, Oman, Kuwait, and Qatar. Pearson correlation and linear regression analyses were conducted using SPSS. The results indicate statistically significant negative correlations between OPF and economic growth across all three dimensions, with GDP being the most affected, followed by EMP and PL. These findings highlight the importance of economic diversification and industrialization strategies to mitigate the effects of oil price volatility and provide insights relevant to energy market policy and economic planning under conditions of global oil market uncertainty.

Keywords: Oil Price Fluctuations, Oil Market Volatility, Economic Growth, GDP, Employment, Gulf Cooperation Council, COVID-19
JEL Classifications: Q43, O47, O53, E62

1. INTRODUCTION

The global economy remains heavily dependent on energy, particularly oil, which plays a central role in both developed and developing countries, whether exporters or importers. Despite the rise of alternative energy sources such as solar, nuclear, and hydropower, oil and hydrocarbon-based exports continue to drive global economic activity (Abdelsalam, 2020). Oil prices are key determinants of economic outcomes: exporters rely on oil revenues for government expenditure and trade, whereas importers face oil prices as a significant component of production costs. Consequently, oil price shocks generate substantial macroeconomic effects across both groups of countries (Alkhateeb and Mahmood, 2020).

Fluctuations in oil prices influence production costs, transportation, and overall price levels, creating uncertainty in economic prospects. Investors may delay production decisions or reallocate capital away from petroleum-intensive sectors to less oil-dependent industries (Dagoumas et al., 2020; Van Eyden et al., 2019). These fluctuations also induce volatility in macroeconomic aggregates, highlighting oil's critical role in the global economy (Brini et al., 2016; Abdelsalam, 2020).

Rising oil prices can increase export revenues and positively affect trade balances but may simultaneously fuel inflation, higher import costs, and currency appreciation, potentially reducing export demand (Rafiq et al., 2016; Korhonen and Ledyaeva, 2010; Alkhateeb and Mahmood, 2020). The 2020 oil market crisis, driven by COVID-19 and a price conflict between major producers, led to unprecedented negative WTI crude oil futures and significant revenue losses for GCC countries (Deloitte, 2020; Zmami and Ben-Salha, 2020). Historically, oil price volatility has threatened GCC economies during previous major shocks, such as in 1979, 2008, and 2014 (Dagoumas et al., 2020; Charfeddine et al., 2020).

The GCC consists of Bahrain, Saudi Arabia, the United Arab Emirates, Oman, Kuwait, and Qatar. Despite differences in population and economic structure, these countries share geographic proximity and strong economic interdependence, particularly in trade and energy activities (Vohra, 2017). They rely heavily on oil exports as a primary source of GDP and fiscal revenues, with several members also part of OPEC, which coordinates production policies and stabilizes prices (Organization of the Petroleum Exporting Countries, 2016; Vohra, 2017). While GCC countries benefited from rising oil prices during the early 2000s, declining and volatile oil prices since 2008 have slowed growth, reduced export revenues, expanded budget deficits, and deteriorated current account balances (Vohra, 2017; El-Chaarani, 2019). These challenges prompted diversification strategies, reflected in development visions such as Saudi Vision 2030, Kuwait Vision 2035, and UAE Vision 2021 (El Shazly and Lou, 2020; Mahmah & Kandil, 2019).

Empirical studies provide mixed evidence on the relationship between oil prices and macroeconomic performance, with some reporting negative, others positive or neutral impacts on growth, highlighting the lack of consensus (Kilian and Park, 2009; Iwayemi and Fowowe, 2011; Yilmaz Kandir, 2013; Santillán-Salgado et al., 2017; Mikhaylov, 2018; El-Chaarani, 2019). Recent volatility, driven by economic recovery, geopolitical tensions, and policy shifts, reinforces the relevance of revisiting this relationship (Kumari et al., 2024; Dong et al., 2024).

1.1. Problem Statement

Oil price shocks can destabilize both oil-importing and exporting economies, with sharp fluctuations linked to economic and financial crises in oil-dependent countries (Zmami and Ben-Salha, 2020; Kumari et al., 2024). While empirical literature has focused on net oil-importing economies like the United States, the European Union, and Japan (Hamilton, 2003; Zhang, 2008; Das et al., 2018; Charfeddine et al., 2020; Dagoumas et al., 2020; Dong et al., 2024), fewer studies examine GCC economies, which remain highly exposed to oil price volatility (Nusair, 2016; Nasir et al., 2019; El-Chaarani, 2019; Charfeddine and Barkat, 2020).

The COVID-19 pandemic intensified this vulnerability, causing global economic contraction and unprecedented drops in oil demand and prices in 2020 (Zmami and Ben-Salha, 2020; Deloitte, 2020; Kumari et al., 2024). This study addresses a gap in the literature by investigating the impact of oil price fluctuations on economic growth indicators GDP, production levels, and employment across all GCC countries from 1990 to 2020, encompassing both historical shocks and the exceptional 2020 crisis.

1.2. Research Questions

1. How do GCC economies respond to periods of low and volatile global oil prices?
2. What is the impact of global oil price fluctuations on GDP, production levels, and employment in GCC countries?
3. What policies can GCC countries adopt to mitigate the adverse effects of oil price volatility on economic growth?

Significance: This study contributes to understanding both the positive and negative impacts of oil price fluctuations on economic growth in GCC countries. By focusing on real economic indicators rather than nominal macro variables, the study provides insights for policymakers, energy-sector stakeholders, and government institutions in designing effective economic strategies under volatile oil markets.

2. THEORETICAL BACKGROUND

2.1. History of Oil Prices

Oil prices have witnessed wide and successive turmoil over the past five decades, and perhaps the recent turmoil represents another dramatic chapter in the history of oil, which proves the great volatility and instability in oil prices and the economy based on it. Price movements and fluctuations were set off by a long list of influential events, including the Arab oil embargo in the 1970s, the Gulf War in the 1990s, the Great Recession of 2008-2009, and recently the Coronavirus pandemic of 2020 (Zmami and Ben-Salha, 2020).

The aim of this research, however, is to discuss theoretical aspects and consider the key oil shocks that took place in the GCC from 1990 to the present. The dynamics of world oil prices can be divided into three phases, according to research from Nyangarika et al. (2018):

2.1.1. Phase one: (1999-2003)

It is marked by a rise in prices from $ 11 to $ 30 per barrel, which is appropriate as far as the expense is concerned within the range of OPEC. The reasons for this price growth were (Nyangarika et al., 2018):

a) Asia's rising energy consumption and maintaining oil demand in the USA
b) The complex internal condition in Venezuela (El-Anshasy et al., 2005) and the Iraqi petroleum production problems through the invasion of the United States
c) OPEC's proposal to reduce oil production volumes
d) The 2001-2002 stagnation of the economy.

2.1.2. Phase two: (2004-2008)

in this phase, prices surpassed OPEC's upper limit and reached $44 per barrel in 2004. US/barrel price fluctuated through 2005 between $ 35 and $ 60, and reached $ 60, in 2007. Accordingly, OPEC's policy did not create a price-creating factor throughout this period, but demand and speculation in the oil futures market played a key role (Wang and Moore 2009).

2.1.3. Phase three: (2008-2018)

The 3rd phase was marked by a dramatic drop in world prices to $39. US/barrel along with a sharp price restoration to the 2007 level, namely $ 60 US/barrel. The key arguments for such a "jump" are that the oil trade was speculative, and the "bubble" was cracking in the oil futures segment that Jayasinghe and Tsui (2008) have noticed.

However, this paper proposed to add another stage to those three stages which is: Phase four (2020-present): where the oil market

was turned upside down in 2020, and the double crisis resulting from the price conflict between Saudi Arabia and Russia and the COVID-19 epidemic led to a global downturn in the oil and gas sector, and WTI record for crude oil futures, in April 2020 was a negative price for the first time in history (about 38 dollars), since the start of future oil sales in 1983, which is expected to have a severe impact on the economies of countries in general and oil-exporting countries in particular, as is the case in the Arab Gulf states (Deloitte, 2020).

The following Table 1 summarizes the market value of crude oil for the period 1990-2020 according to the U.S. Energy Information Administration (2020), where the first column shows the average annual price of crude oil, followed by the low and high monthly oil prices for that year, and the last column shows the causes of price changes and the associated events:

2.2. The Effect of Oil Price Fluctuation on Economic Growth

The relationship between oil prices and economic growth has attracted considerable attention in the economic literature since the seminal contribution of Hamilton (1983), who provided early evidence of a negative impact of oil price increases on real economic output. Hamilton argued that oil price fluctuations significantly affect individual welfare and industrial production worldwide, both of which constitute fundamental components of economic growth (Mgbame et al., 2015; Geiger & Scharler, 2019). Since then, this relationship has been extensively examined across different countries and economic contexts.

Table 1: Changes in the average annual price of crude oil in the period (U.S. Energy Information Administration [EIA], 2020)

Year	Average	Low	High	Causes
1990	$21.73	$15.15	$32.88	Gulf War
1991	$18.73	$17.17	$22.30	SPR released oil
1992	$18.21	$16.00	$19.83	
1993	$16.13	$12.56	$18.35	
1994	$15.54	$12.90	$17.52	NAFTA allowed cheap oil from Mexico
1995	$17.14	$16.29	$18.70	
1996	$20.62	$17.48	$23.22	
1997	$18.49	$15.95	$23.02	
1998	$12.07	$9.39	$14.33	
1999	$17.27	$10.16	$24.35	Prices doubled
2000	$27.72	$24.29	$30.56	
2001	$21.99	$15.95	$24.97	Recession and 9/11
2002	$23.71	$17.04	$27.14	Afghanistan War
2003	$27.73	$24.48	$32.23	
2004	$35.89	$30.11	$45.36	
2005	$48.89	$37.56	$58.79	Hurricane Katrina
2006	$59.05	$52.70	$67.99	Bernanke becomes Fed chair
2007	$67.19	$49.57	$85.53	Banking crisis
2008	$92.57	$35.59	$127.77	Financial crisis
2009	$59.04	$36.84	$74.40	Great Recession
2010	$75.83	$71.15	$85.59	
2011	$102.58	$87.61	$113.02	
2012	$101.09	$92.18	$108.54	Iran threatened the Straits of Hormuz
2013	$98.12	$90.36	$104.16	
2014	$89.63	$57.36	$100.26	The dollar rose 15%
2015	$46.34	$33.16	$58.89	U.S. shale oil increased
2016	$38.70	$26.66	$46.72	Dollar fell
2017	$48.98	$44.03	$57.44	OPEC cut oil supply to keep prices stable
2018	$61.34	$42.80	$67.79	
2019	$57.94	$49.57	$65.42	
2020	$37.20	$16.74	$53.96	Pandemic reduced demand

More recent studies suggest that the magnitude and direction of the impact of oil price fluctuations on economic growth depend on country-specific characteristics and institutional frameworks. For instance, Majumder et al. (2020) and Gershon et al. (2019) argue that effective financial regulation and macroeconomic stabilization policies can mitigate the adverse effects of oil price shocks on real output. In contrast, Odhiambo and Akinsola (2020) criticizes the existing literature for its lack of consensus, emphasizing that the growth effects of oil price fluctuations vary across countries and samples. Similarly, Jiang and Liu (2021) highlight the asymmetric effects of crude oil price movements, demonstrating that oil price dynamics influence broader economic outcomes through multiple transmission channels.

There remains an ongoing debate in the literature regarding the extent and direction of the impact of oil prices on economic growth in oil-exporting and oil-importing countries. Some studies contend that rising oil prices enhance income levels in oil-exporting economies by increasing profits, government revenues, consumption, investment, and financing capacity, thereby stimulating economic growth as measured by GDP (Charfeddine and Barkat, 2020; Jahangir and Dural, 2018; Dabachi et al., 2020). This positive relationship is often attributed to the central role of oil revenues in supporting fiscal and economic activity in resource-dependent economies.

Conversely, a substantial body of empirical research reports a negative relationship between oil price fluctuations and economic growth, particularly in oil-importing countries where oil prices constitute a major component of production costs. Rising oil prices can reduce profitability, increase inflationary pressures, and constrain economic activity (Arouri and Nguyen, 2010; Filis et al., 2011; Murshed and Tanha, 2020). Ghalayini (2011) notes that higher global oil prices tend to weaken economic performance in oil-importing economies. For example, Bouzid (2012), in a study of Tunisia, found that a 10% increase in international oil prices leads to approximately a 3% decline in GDP growth.

In addition to price levels, oil price volatility has received significant attention in the literature. Recent studies indicate that fluctuations in oil prices exert a considerable influence on economic growth, particularly in oil-dependent economies, although this effect tends to weaken in countries with mature financial institutions and diversified economic structures (Charfeddine and Barkat, 2020; Dagoumas et al., 2020; Majumder et al., 2020). Van Eyden et al. (2019) document a significant negative impact of oil price volatility on GDP growth, while other studies report positive effects. For instance, Bjørnland (2000) finds a positive relationship between oil price volatility and economic activity in Norway, and Akinlo and Apanisile (2015) report similar findings for a sample of Sub-Saharan African countries.

Furthermore, some empirical evidence suggests that the impact of oil price fluctuations on economic growth may be moderate or even neutral. Jarrett et al. (2019) argue that appropriate fiscal, financial, and industrial policies, along with economic diversification strategies, can substantially reduce the adverse effects of oil price volatility in oil-exporting countries.

Given the asymmetric nature of oil price movements, the relationship between oil prices and economic growth remains a fertile area for empirical investigation. Several studies, including Kilian and Vigfusson (2011), Raheem (2017), and Akinsola and Nicholas (2020), attribute this asymmetry to sectoral reallocation effects, heightened uncertainty, and contractionary monetary responses to inflationary pressures. Hamilton (2008) further argues that oil price increases may suppress demand in oil-intensive sectors while raising adjustment costs associated with reallocating labor and capital across sectors. Empirical evidence provided by Hamilton (2003) suggests that positive oil price shocks exert stronger effects on economic growth than negative shocks. Similarly, Jiménez-Rodríguez and Sánchez (2005) find that rising oil prices have a pronounced impact on GDP growth in selected OECD countries. In the context of oil-exporting economies, Maalel and Mahmood (2018) document asymmetric effects of oil price shocks on the economic performance of GCC countries.

More recent contributions extend this line of research by examining the macroeconomic effects of crude oil price movements across different regions and time periods. Evidence from developing and emerging economies indicates that oil price shocks continue to exert significant, and often asymmetric, effects on economic growth (Miamo and Achuo, 2021; Ahmad et al., 2022).

2.3. The Case of GCC Countries

First, the crude oil-exporting countries of the GCC are important players in the world market for oil. In 2018, they produced around 22134 thousand barrels per day together, representing 23.4% of world oil production. The oil reserves proven by the same countries reached an equilibrium of about 527.6 billion barrels. It accounts for about 30.6% of the world's proven oil reserves (Dudley, 2018; Zmami and Ben-Salha, 2020).

Second, the main sources of funding for public spending in GCC oil-exporting countries are oil and gas revenues. Oil shocks can also be transmitted, primarily by fiscal policy, into the real economy. Investigating the response of economic activity to oil price fluctuations in this community of countries will be crucial. Third, most GCC countries have implemented different economic policies aimed at fostering the private sector, reducing reliance on oil and other natural resources, and diversifying their economies. Therefore, it is vital to analyze the relation of oil price-economic activity. Capital goods importers from abroad are GCC oil-exporting nations. Also, the volatility in oil price may indirectly influence import prices, which in turn would affect economic growth, especially those intermediate imports and capital goods that are obligatory for the economy (Zmami and Ben-Salha, 2020).

Furthermore, despite the clear significant correlation between economic growth and oil price fluctuations in the economies of the GCC, studies focusing on this region are somewhat limited. Also, an extensive review of the literature and previous work has shown that most of the work related to the GCC countries focused on the effects of oil prices on variables other than economic growth, especially stock markets (Arouri & Rault, 2012; El-Chaarani, 2019; Fayyad & Daly, 2011; Javid et al., 2018; Jouini & Harrathi, 2014; Khamis et al., 2018; Mohanty et al., 2011; Mokni & Youssef, 2019; Ojikutu et al., 2017).

In contrast, few works analyzed the impact of oil prices on economic growth in the oil-exporting GCC countries. For example, Mahmood and Zamil (2019) concluded that fluctuations in oil prices have a significant impact on Saudi Arabia's GDP by affecting budget deficiency. Similar results were reached for the countries of GCC by Vohra (2017) and Bahrain by Abou Elseoud and Kreishan (2020).

Finally, except for the studies of Nasir et al. (2019) and Nusair (2016), GCC countries are often viewed either individually, such as Saudi Arabia case study of Alkhathlan (2013) and Qatar in the case of Charfeddine and Barkat (2020) or included in a sample of countries, such as a sample of 13 oil-exporting countries including. Qatar, UAE, Kuwait, and Saudi Arabia in Mehrara (2008) or the case of Moshiri's (2015) study for six OPEC countries including Saudi Arabia and Kuwait.

Therefore, this study will be different from the previous one, as it will be conducted on a sample from all the six countries that make up the GCC, and will examine the effect of oil price fluctuations on economic growth through three variables, namely (GDP, production levels, and employment), where this effect will be researched from the point of view of specialist and economic analysts in the Gulf countries, which extends previous studies by examining all six GCC countries collectively through three key economic growth variables (GDP, production levels, and employment).

More recently, the interaction between oil prices, risk factors, and economic performance has gained attention, particularly in the context of global uncertainty and conflict, reinforcing the relevance of examining oil price dynamics within a broader macroeconomic framework (Dong et al., 2024).

While earlier studies largely focused on the linear effects of oil price fluctuations on economic growth, recent empirical evidence highlights the growing importance of volatility, asymmetric effects, and global uncertainty—particularly in the context of post-2020 oil market disruptions (Kumari et al., 2024; Dong et al., 2024).

3. METHODOLOGY

3.1. Research Design and Tool

In this study, the research problem focuses on revealing the impact of global oil price fluctuation on economic growth rates in the Arab Gulf States. The quantitative approach is considered as the most appropriate utilized approach to cover the research problem rigorously and objectively. This approach essentially

integrates data, analyses and uses them to investigate relative hypotheses of a subject (Kothari, 2004). Apuke (2017) outlined the benefits of quantitative research design as its importance, as the data collected could not be obtained using other techniques. It also has an objective representation of the target population and a structured assessment, as all participants share the same data.

This quantitative approach will be based on developing the research model based on the study's hypotheses and questions, then collect data using quantitative data collection techniques, and then get results by conducting statistical analysis for the collected data. The research model as represented in Figure 1 indicates the relationships among the study variables.

According to the previous research model, the main hypothesis of the research is summarized in. H_0: There is a significant negative impact of oil price fluctuations on the economic growth rates of the Gulf countries, and this hypothesis can be tested through the following three sub-hypotheses:

H_1: There is a significant negative impact of oil price fluctuations (OPF) on the GDP of the Gulf countries

H_2: There is a significant negative impact of oil price fluctuations (OPF) on the production levels (PL) of the Gulf countries

H_3: There is a significant negative impact of oil price fluctuations (OPF) on the employment (EMP) rates of the Gulf countries.

3.2. Research Population and Sampling

The study population comprised economic experts and financial analysts working in investment companies and financial markets across the six GCC countries (Bahrain, Saudi Arabia, the United Arab Emirates, Oman, Kuwait, and Qatar). Due to practical constraints, a convenience representative sample of 600 participants was selected, with 100 respondents from each country. The questionnaire was distributed electronically via e-mail.

Table 2 presents the socio-demographic characteristics of the study sample, including country, job position, qualifications, and years of experience.

The descriptive statistics indicate that the sample is well-balanced across the six GCC countries, with equal representation from each nation. The participants' professional positions demonstrate relevant expertise: investment managers (11.7%), economic analysts (35%), heads of economic research (26.7%), and financial auditors (15.8%). This composition ensures that the respondents are qualified to provide reliable insights regarding the study variables.

Regarding educational background, the majority of participants hold at least a Bachelor's degree (58.3%), with)26.2%) holding a Master's degree and (15.5%) possessing a Ph.D. In terms of professional experience,)18.3% (have <5 years of experience,)37% (have 5-10 years, and)44.7% (have more than 10 years of experience. These characteristics suggest that the sample consists of highly qualified experts, capable of responding accurately and credibly to the research questions.

Figure 1: Research conceptual model and hypotheses

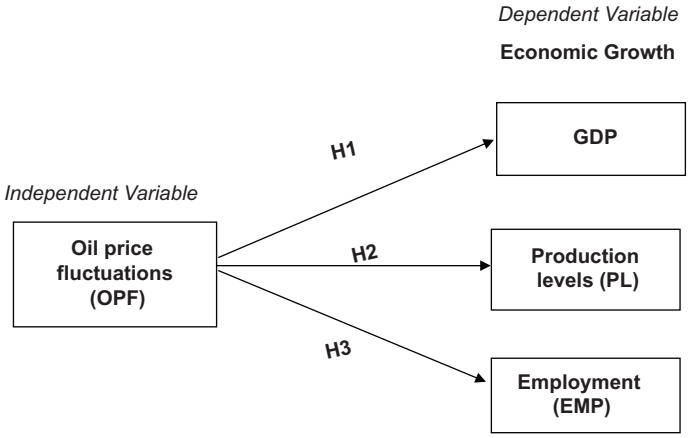

Table 2: The socio-demographic characteristics of the study sample

Variable	Categories	Frequency	Percentages
Country	Bahrain	100	16.7
	KSA	100	16.7
	UAE	100	16.7
	Kuwait	100	16.7
	Oman	100	16.7
	Qatar	100	16.7
Job positions	Investment manager	70	11.7
	Economic Analyst	210	35.0
	Head of Economic Research	160	26.7
	Financial auditor	95	15.8
	Other	65	10.8
Qualifications	Bachelor's degree	350	58.3
	Master's degree	157	26.2
	PhD	93	15.5
Years of Experience	<5 years	110	18.3
	5-10 years	222	37.0
	More than 10 years	268	44.7
Overall		600	100

3.3. Data Collection and Analysis

The primary data was collected through a cross-sectional survey. This survey (questionnaire) was designed based on previous relevant studies and literature. The questionnaire consists of three different parts with a set of closed statements directed towards collecting data related to the study variables. The first part of the questionnaire consists of questions covering the sociodemographic information of the selected sample participating in this study. The second section includes a group of (5) statements asking about the independent variable (IV) in the study which is oil price fluctuation, while the third section inquiries about the dependent variable (DV) represented by economic growth, which consists of (15) close-ended statements divided equally into three dimensions which are: GDP, production levels, and employment. The fifth Likert Scale was utilized to gather the responses of the study sample. This scale utilized the five following responses: strongly disagree, disagree, neutral, agree, and strongly agree where participants were required to express the level of their agreement according to this scale.

The reliability of the tool and its items was determined through Cronbach's Alpha test by SPSS before distributing the tool over the study sample members. The Cronbach's Alpha was determined to be (0.882) for the first scale items (oil price fluctuations), (0.887) for the second scale items (GDP), (0.890) for the third scale items (production levels), and (0.892) for the fourth scale item (employment). However, it was (0.884) for the overall tool items as shown in Table 3 below, meaning that the tool's reliability is acceptable as long as Cronbach's Alpha value higher than (0.7) (Graham, 2006). On the other hand, the validity of this questionnaire was assured by presenting it to a group of referees specialized in the field of economic and financial studies, where the items were modified according to their observations and directions, and therefore a readily validated questionnaire was distributed to the selected sample.

An online survey was sent via email to various investment, economy, and financial trading companies in the Arabian Gulf, where 100 questionnaires were sent to each of the six countries, in a manner that ensures the participation of economic experts and analysts from all GCC countries in the study. After receiving all entries from participated experts and analysts, the researcher entered the data on the SPSS 23 program, and then analyzed it using a set of statistical processing (Arithmetic means, standard deviations, and percentages, Cronbach's Alpha equation, Graphical representation of independent variables, Pearson correlation, and linear regression analysis).

3.4. Data Period Justification

The year 2020 was selected as a critical period for this study due to unprecedented volatility in the global oil market and its significant economic implications. Focusing on this period allows for an in-depth examination of the effects of major oil price fluctuations on economic growth indicators in the GCC. This period provides a pivotal case for understanding the economic consequences of sharp oil price movements and the transmission of oil shocks to key economic variables.

Table 3: The results of Cronbach' alpha reliability test

No.	Variable	Number of items	Cronbach's alpha value
1	Oil price fluctuation (OPF)	5	0.882
2	GDP	5	0.887
3	Production levels (PL)	5	0.890
4	Employment (EMP)	5	0.892
Overall tool's items		20	0.884

4. RESULTS

4.1. The Descriptive Analysis Results

To descriptively identify the impact of oil price fluctuations on economic growth rates in GCC, the descriptive statistics (means and standard deviation) of the responses and their ranks, which were elicited using a five-point Likert scale were calculated via SPSS, where means ranging from (1 to 1.80) were considered very low, from (1.81 to 2.60) were considered low, from (2.61 to 3.40) were considered moderate, from (3.41 to 4.20) were considered high and from (4.21 to 5.00) were considered very high.

4.1.1. Oil price fluctuations

In this part, the descriptive analysis of the collected data focuses on investigating the independent variable of this study which is the oil price fluctuations in countries of GCC. So, to evaluate this variable, descriptive summary (means and standard deviation) of the responses to the variable items were calculated as shown in the following Table 4:

It can be noticed from Table 4 above that the arithmetic means that measure the oil price fluctuations in GCC are very high and ranging from (4.60 to 4.74). It can be noticed that item (5), which states "The price war between Saudi Arabia and Russia in 2020 led to a drop in oil prices to their lowest levels, which coincided with the Corona crisis, which reduced the supply and demand process," represents the highest agreed to mean statement (4.74, Standard = 0.536), followed by item (1) secondly in which it stated that: "There are fluctuation and disparity in the price of oil between continuous decline and rise" with a mean (4.67, Standard = 0.624), and the sentences on which the respondents strongly agreed upon came up to statement (4) which stated that: "Oil rose again with the Arab Spring revolutions and related events in the region between 2011 and 2014" with the lowest arithmetic mean (4.60, Standard = 0.638), but also with a very high agreement value.

The overall mean for this section was (4.66), which indicates that most of the study sample highly agree with the items of this

Table 4: Descriptive summary for the oil price fluctuations in GCC

No.	Statement	Mean	Standard deviation	Rank	Level
1	There are fluctuations and disparity in the price of oil between continuous decline and rise.	4.67	0.624	2	Very High
2	Oil has witnessed a rise in prices as a result of the second Gulf War (the war of liberation of Kuwait) in 1991, the third Gulf War (occupation of Iraq in 2003), and Hurricane Katrina in the Gulf of Mexico in 2005.	4.62	0.629	4	Very High
3	Oil reached its highest price in early 2008, but it soon fell again due to the global crisis	4.66	0.593	3	Very High
4	Oil rose again with the Arab Spring revolutions and related events in the region between 2011 and 2014	4.60	0.638	5	Very High
5	The price war between Saudi Arabia and Russia led to a drop in oil prices in 2020 to their lowest levels, which coincided with the Corona crisis, which reduced the supply and demand process.	4.74	0.536	1	Very High
Overall		4.66	0.58	Very High	

part of the study, which indicates their agreement to the existence of fluctuations in oil prices in all the Arab Gulf countries from 1990 to 2020, where oil is constantly rising and falling affected by the events afflicting the region. The results of this study are in line with the study of El-Chaarani (2019) which showed that oil prices in the Arabian Gulf witnessed great fluctuations during and after the Arab spring in the period of (2011-2017) and the study of Faheem et al. (2020) which confirmed the existence of fluctuations in oil prices in three of GCC countries between the year of (1985-2017). However, this study was distinguished from others in that it included the year 2020, and the severe oil fluctuations that have occurred in it that have not happened before, where oil prices have declined to their lowest levels.

4.1.2. Economic growth rates

In this part, the descriptive analysis of the collected data focuses on investigating the dependent variable of this study which is the economic growth rates including (GDP, production levels, and employment) in countries of GCC. So, to evaluate the dependent variable, descriptive summary (means and standard deviation) of the responses to the variable items were calculated as shown in the following Table 5:

It can be noticed from Table 5 above that the arithmetic means that measure the economic growth rates in GCC are high and ranging from (3.98 to 4.18). It can be noticed that item (7) from production level dimension, which states that "Fluctuating oil prices weaken the infrastructure for productive projects," represents the highest agreed mean statement (4.18, Standard = 0.789) and was followed secondly by item (2) from GDP dimension, in which it stated that "The strength of the local currency in the Gulf countries is affected by oil prices linked to the dollar's value" with a mean (4.18, Standard = 0.937), followed thirdly by item (10) from production level dimension, in which it stated that "Protection is absent for local industries and products, and imported goods flood local markets when oil prices fall" with a mean (4.12, Standard = 0.832), followed fourthly by item (8) from production level also, in which it stated that "Factories and companies find it difficult to repay their loans and insurance premiums due to fluctuations in oil prices" with a mean (4.12, Standard = 0.806) and followed by item (14) fifthly, from empowerment dimension, in which it stated that "Many workers lose their jobs every day as a result of the instability of oil prices" with a mean (4.12, Standard = 0.822).

Concerning the ranking of the dimensions of economic growth in terms of their affection by oil price fluctuations according to the perspective of the study sample, production levels comes in first place with an arithmetic mean (4.12), followed by empowerment secondly with an average (4.07) and thirdly in last place GDP with the lowest average (4.06).

Moreover, the overall mean for this section was (4.22) which shows that most of the study sample highly agrees with the items of this part of the study, indicating their agreement that the economic growth of the Gulf countries witnessed many changes and influences during the period from 1990 to 2020, especially in the three main dimensions of GDP, production and employment levels, as the market values of local commodities decreased in the Gulf countries with the decline in oil prices, the strength

Table 5: Descriptive summary for the economic growth rates in GCC

No.	Statement	Mean	Standard deviation	Rank	Level
1	The market value of domestic goods in the Gulf countries decreases as oil prices decrease.	3.99	0.937	14	High
2	The strength of the local currency in the Gulf countries is affected by oil prices linked to the dollar's value	4.18	0.862	2	High
3	There is fluctuation in the level of poverty and living standards in the Gulf countries depending on the price of oil	4.06	0.839	10	High
4	Fluctuations in oil prices are accompanied by fluctuations in national per capita income and quality of life	3.98	0.988	15	High
5	There are large fluctuations in tax rates imposed on services and projects in the Gulf countries as a result of fluctuations in oil prices	4.10	0.885	7	High
GDP		4.06	0.881	High	
6	There are fluctuations and instability in the work of production lines in the local factories, especially in the oil-dependent industries	4.03	0.933	12	High
7	Fluctuating oil prices weaken the infrastructure for productive projects.	4.18	0.789	1	High
8	Factories and companies find it difficult to repay their loans and insurance premiums due to fluctuations in oil prices.	4.12	0.806	4	High
9	The consumer and non-production system spread in the Gulf states when oil prices are low	4.10	0.857	6	High
10	Protection is absent for local industries and products, and imported goods flood local markets when oil prices fall	4.14	0.855	3	High
Production level (PL)		4.12	0.832	High	
11	The increase in oil prices in the GCC exporting countries increases employment and recruitment opportunities.	4.00	0.983	13	High
12	When oil prices drop, a group of manpower is being dispensed with.	4.09	0.898	8	High
13	The confusion in oil prices forces many of the skilled workforces to job instability and to constantly emigrate in search of a job.	4.05	0.896	11	High
14	Many workers lose their jobs every day as a result of the instability of oil prices.	4.12	0.822	5	High
15	The oil-exporting GCC countries resort to diversifying their economies in a way that enables them to overcome unemployment crises.	4.08	0.867	9	High
Empowerment (EMP)		4.07	0.880	High	
Overall		4.22	0.775	Very High	

of local currencies was affected, and there was a fluctuation in poverty and living standards, and the infrastructure for productive projects weakened, where many workers lose their jobs also, and other negative effects that accompany the drop in oil prices in the Gulf states.

This result is consistent with many previous studies that indicated that the Arab Gulf states have witnessed many changes and influences in the level of economic growth in them, such as a study of Alkhateeb et al. (2017) which clarified many changes in employment that occurred in Saudi Arabia as one of the dominant countries in the Arab Gulf during the period of oil price fluctuations, in addition to a study of Nusair (2016) which showed the changes and negative effects witnessed in the economic growth in the Arab Gulf, especially the GDP. Once again, this current study was distinguished from others by the period it contained, spanning from 1990-2020, and its research on the three variables of economic growth, namely (GDP, production levels, and employment).

4.2. Structural Model and Hypotheses Testing

To analyze the study's hypotheses, an evaluation of the structural model was conducted using the Pearson correlation and simple linear regression analysis with SPSS. Table 3 presents the results of those regressions.

For the first model, the dependent variable (GDP) was regressed on the independent variable (OPF) and as shown in Table 6, the model summary and overall fit statistics indicates that there is a statistically significant negative impact of OPF on GDP of the Arab Gulf States, where the coefficient of determination R^2 amounted to (0.751) at ($\alpha \leq 0.05$), which means that (75.1%) of the negative changes in GDP of the Arab Gulf States are because of OPF. Moreover, the degree of impact (β) for the OPF on the GDP is (−1.307). This means that a one-step increase in the OPF leads to a decline in the GDP of Arab Gulf States by (1.307). The significance of this effect is the value of the calculated (F) which reached (1801.60) and is significant at the level of ($\alpha < 0.05$) (Significant = 0.000). This confirms the validity of the acceptance of the first sub-hypotheses: H_1: There is a significant negative impact of oil price fluctuations (OPF) on the GDP of the Gulf countries.

Secondly, the dependent variable (PL) was regressed on the independent variable (OPF) and as shown in Table 6, the model summary and overall fit statistics indicate that there is a statistically significant negative impact of OPF on PL of the Arab Gulf States, where the coefficient of determination R^2 amounted to (0.701) at ($\alpha \leq 0.05$), which means that (70.1%) of the negative changes in PL of the Arab Gulf States are because of OPF. Moreover, the degree of impact (β) for the OPF on the PL is (−1.193). This means that a one-step increase in the OPF leads to a decline in PL of Arab Gulf States by (1.193). The significance of this effect is the value of the calculated (F) which reached (1398.99) and is significant at the level of ($\alpha < 0.05$) (sig. = 0.000). This confirms the validity of the acceptance of the second sub-hypotheses: H_2: There is a significant negative impact of oil price fluctuations (OPF) on the production levels (PL) of the Gulf countries.

Moreover, the dependent variable (EMP) was regressed on the independent variable (OPF) and as shown in Table 6, the model summary and overall fit statistics indicate that there is a statistically significant negative impact of OPF on EMP of the Arab Gulf States, where the coefficient of determination R^2 amounted to (0.738) at ($\alpha \leq 0.05$), which means that (73.8%) of the negative changes in EMP of the Arab Gulf States are because of OPF. Moreover, the degree of impact (β) for the OPF on the GDP is (−1.294). This means that a one-step increase in the OPF leads to a decline in EMP of Arab Gulf States by (1.294). The significance of this effect is the value of the calculated (F) which reached (1680.26) and is significant at the level of ($\alpha < 0.05$) (sig. = 0.000). This confirms the validity of the acceptance of the third sub-hypotheses: H_3: There is a significant negative impact of oil price fluctuations (OPF) on the employment (EMP) rates of the Gulf countries.

Based on the foregoing, it can be said that GDP is the most affected dimension from the economic growth rate variable by OPF ($\beta = -1.307$), followed by EMP ($\beta = -1.294$), and last up to PL ($\beta = -1.193$). However, for the main hypothesis, and by looking at the fourth model in Table 6, the model summary and overall fit statistics indicate that there is a statistically significant negative impact of OPF on the economic growth of the Arab Gulf States, where the coefficient of determination R^2 amounted to (0.816) at ($\alpha \leq 0.05$), which means that (81.6%) of the negative changes in the economic growth of the Arab Gulf States are because of OPF. Moreover, the degree of impact (β) for the OPF on the GDP is (−1.198). This means that a one-step increase in the OPF leads to a decline in the economic growth of Arab Gulf States by (1.198). The significance of this effect is the value of the calculated (F) which reached (2643.96) and is significant at the level of ($\alpha < 0.05$) (sig. =0.000). This confirms the validity of the acceptance of the study's main hypothesis: H_0: There is a significant negative impact of oil price fluctuations on the economic growth rates of the Gulf countries.

Hence, this proved the impact of the OPF on the economic growth of GCC and its three dimensions (PL, GDP, and EMP), which is affirmed by several previous studies but in different periods including Mehrara's study (2008) which showed the negative relationship between economic growth and negative oil price shocks for a sample of 13 oil-exporting countries that included Qatar, Kuwait, KSA, and the UAE over the period 1965-2004, as well as the study of Moshiri and Banijashem (2012), but in another

Table 6: Regression analyses for testing hypotheses

Model No.	DV	IV	(β) coefficient	R	R2	F	Significant
1.	GDP	OPF	−1.307	−0.866*	0.751	1801.60*	0.000
2.	PL	OPF	−1.193	−0.837*	0.701	1398.99*	0.000
3.	EMP	OPF	−1.294	−0.859*	0.738	1680.26*	0.000
4.	Economic Growth Rate	OPF	−1.198	−0.903*	0.816	2643.96*	0.000

*Significant at 0.05

period between 1979 and 2009, and using another analytical model, the VAR model for six OPEC member states, including Kuwait and KSA, where they found that lower oil prices lead to significant cuts in revenues and a recession in the economy, but higher oil prices do not translate into sustainable economic growth. Likewise, the same applies to Alkhathlan (2013) using the ARDL model with annual data over the period 1970-2010, which showed that positive oil revenues have a strong impact on Saudi Arabia's GDP in the short and long term. Also, a study by Vohra (2017) which included all six GCC countries as is the case in this study, but during the period 2000-2015, confirmed that the fluctuations in oil prices in these countries had a negative impact on slowing growth, and the sharp decline in revenues from exports, the increase in the budget deficit, and the shrinking of the current account in the GCC countries.

The findings of this study are consistent with recent empirical evidence examining the relationship between oil prices and economic performance in the period following 2020. While global oil markets have continued to evolve as a result of changing economic conditions and policy responses, the fundamental mechanisms identified in this analysis continue to offer valuable insights. These findings support the view that oil price volatility plays an important role in shaping economic performance, even under changing global conditions. (Ahmad et al., 2022; Kumari et al., 2024).

5. CONCLUSIONS

Oil prices have witnessed many sharp fluctuations in the past four decades, and as a result, the GCC countries, which are dependent on oil in their economies, have gone through periods of economic prosperity due to high oil prices, and many recessions followed during the period between 1990 and 2020. Oil is one of the most important economic variables that are taken into account when designing and implementing economic policies or explaining some cases and phenomena that the economies of oil-exporting countries are going through and which depend on it as the main source of their revenues and support. However, a review of the current literature showed that there have been relatively limited studies to analyze the impact of OOPF on the economic growth (GDP, PL and EMP) of oil-exporting countries, especially in the GGCC countries, which represents a critical gap in the existing literature. The problem of the study also lies in the events that the Arab Gulf states and the world are going through that led to the collapse of the economic situation, especially in light of the Corona epidemic, as the global economy contracted by more than 3% in 2020, which makes this the worst economic downturn since the Great Depression in 2008. However, the impact of OPF on GCC countries' economic growth has not been studied during this period yet, hence, this study came to precede other studies in the search for the impact of the fluctuations in oil prices and the large losses in the revenues of Gulf companies on the economic growth of the country, which includes the national gross domestic product, and long-term production levels from active production areas and employment, taking into account the period of spread of Corona in 2020.

The study showed the existence of sharp fluctuations in oil prices in all the Arab Gulf countries from 1990 to 2020, where oil is constantly rising and falling affected by the events afflicting the region especially the second Gulf War (the war of liberation of Kuwait) in 1991, the third Gulf War (occupation of Iraq in 2003), Hurricane Katrina in the Gulf of Mexico in 2005, the Great Depression in 2008, Arab spring events (2011-2017), and Covid-19 in 2020. The study also revealed that the economic growth of the Gulf countries witnessed also many changes and influences during this period, especially in the three main dimensions of GDP, production, and employment levels, as the market values of local commodities decreased in the Gulf countries with the decline in oil prices, the strength of local currencies was affected, and there was a fluctuation in poverty and living standards, and the infrastructure for productive projects weakened, where many workers lose their jobs also, and other negative effects that accompany the drop in oil prices in the Gulf states.

Moreover, the study concluded that there is a statistically significant, negative, and strong correlations between the OPF and the economic growth of GCC regarding its three dimensions (PL, GDP, and EMP), where GDP was revealed to be the most affected dimension from economic growth rate variable by OPF, followed by EMP, and lastly PL dimension. Based on the results, government officials in these countries should take strong steps to transform these economies from massive oil extraction to a more diversified economy by supporting industrialization, import, and export of other goods. Moreover, policymakers must understand the link between oil prices and the manufacturing sector to diversify their economy and escape from crises, which is what some countries have started by issuing new visions for an economy independent of oil, such as the KSA Vision 2030, Kuwait Vision 2035, UAE 2021, etc.

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