



Effect of Oil Export on Economic Development in Selected Countries in Asia, Sub-Sahara Africa, and MENA Regions

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Abstract

This study examined the effect of oil export on economic development in selected countries across Asia, Sub-Saharan Africa (SSA), and the Middle East and North Africa (MENA) regions. Using panel data for Nigeria, Republic of Congo, Saudi Arabia, United Arab Emirates, China, and India from 1990 to 2023, the study employed descriptive statistics, panel unit root tests, Pedroni cointegration analysis, Hausman specification test, and panel regression techniques. Per capita income served as proxy for economic development, while oil export, Foreign Direct Investment (FDI), Gross Domestic Product (GDP), and exchange rate are included as explanatory variables. The fixed effects results reveal that oil exports exert negative and statistically significant effect on per capita income, suggesting the presence of structural distortions and over-dependence on oil revenues. GDP growth and FDI demonstrate positive and significant impacts on economic development, whereas exchange rate depreciation adversely affected per capita income. The findings highlight the vulnerability of oil-dependent economies to external shocks and underscore the importance of economic diversification. The study recommends strategic investment in non-oil sectors, enhancement of productive capacity, and sound macroeconomic management to achieve sustainable economic development across the regions

Keywords: *Oil Export; Economic Development; Per Capita Income; Foreign Direct Investment; Exchange Rate; Panel Data Analysis; Sub-Saharan Africa; MENA; Asia.*

Introduction

The opening of borders along with the expansion of oil export markets induced boundless opportunities for local firms to increase sales and simultaneously, complement economic growth. In this regard, the performance of exports, inter alia, depends on the composition of exports. As the vast economic literature suggests, the dominance of manufactures in the export portfolio can trigger higher economic growth than exports of primary goods. The reason is a high demand elasticity and the ability of manufactured exports to generate positive externalities in terms of technology transfer (Santos et al., 2013; Hesse, 2008). Among others, fostering an efficient export strategy with the right assortment of the export portfolio requires a healthy environment. Unfortunately, most of the transition economies suffer from endemic political instability. The point is that undeveloped socio-political environments cannot facilitate technology-oriented growth/trade policies, hence results found in the vast literature supporting the prominence of

manufactured exports in generating high economic growth through the technology/knowledge spillovers could be controversial for transition economies. For instance, Fosu (1996) and Xu (2000) provide interesting evidence that at a certain level of development, economies can experience a larger growth effect while exporting primary commodities. Apparently, there is no universal framework to determine a trade structure that will guarantee superior export performance and correspondingly economic development; hence, conducting empirical research in line with economic theory is the only way to ascertain the right composition of exports.

The relationship between oil exports and economic development has long been a subject of interest among economists and policymakers. While it is widely acknowledged that oil exports can drive economic growth by expanding markets, generating foreign exchange, and stimulating investment, the extent and nature of this relationship vary significantly across different regions and countries. In the context of Asia,

Sub-Saharan Africa (SSA), and the Middle East and North Africa (MENA) regions, the dynamics of exports and their impact on economic development present unique challenges and opportunities. These regions encompass a diverse set of economies, each with distinct structural characteristics, policy frameworks, and developmental trajectories. For instance, while some Asian economies like China and India have leveraged export-led growth strategies to achieve rapid economic development, many SSA and MENA countries continue to face significant obstacles such as limited industrialization, political instability, and dependency on a narrow range of export commodities. Given these variations, there is a critical need to understand how exports influence economic development within these regions.

International trade as an elixir of growth. However, it is not a sufficient condition for economic growth and development (Minford, Riley and Nowell, 1995). For sustained economic growth and development to occur, the benefits from trade must be complemented by an ever upward increase in domestic productivity increases in such economy, an upward increment in savings and investment, and economic policy must encourage private sector participation, capital inflows and the efficient use of resources. Due to the differences in the sizes of countries, natural resources, differences in the external environment and variations in domestic policy, it has been a herculean task in the formulation of a simple and unambiguous empirical relationship between foreign trade and economic growth/development (Arodoye & Iyoha, 2014).

From the 1950s and into the 1980s, most developing countries had in place an extensive array of policies that restricted imports (Krueger 1984). These policies went far beyond high import tariffs. They included foreign exchange controls and payment restrictions that accompanied overvalued currencies; quantitative restrictions, such as import quotas and licenses; and multiple exchange rates. At various points, countries began to reduce these barriers to trade, often slowly but sometimes rapidly (Irwin, 2019). In some cases, there was a dramatic reorientation of a country's trade regime. Early examples of reforming economies include Taiwan (1958-62), South Korea (1964-68), Chile (1974-79), and a few others. Some countries, such as Brazil (1964-68), Indonesia (1966-71), and Argentina (1976-82), had brief spells of liberalization followed by a later return to greater restrictions (Irwin, 2019). By 1980, however, the number of reforming countries was still relatively small. In the late 1980s and early 1990s, however, developing countries embarked on a wave of trade reforms, as many countries moved swiftly to open their markets (Dean, Desai, and Riedel 1994). They often did so by devaluing their currencies and unifying their exchange

rates, allowing exporters to retain foreign currency earnings, reducing licensing and quantitative restrictions, and then-often last in the mix-cutting tariffs, usually on intermediate goods first and consumer goods later, sometimes much later. Nigeria adopted the structural adjustment program in 1986 in order to open up the economy.

This study investigates the effect of oil export on economic development in Sub Saharan Africa, Asia and MENA regions using selected countries namely; Nigeria, Republic of Congo, Saudi Arabia, UAE, China and India. This study is one of the first to examine these issues in a generalized group of selected countries; Africa, Asia and MENA countries as well. The rest of the study is structured as follows; the second section focus on the literature review, the third section addresses the methodologies. The fourth section is concerned with the results and discussion of the findings and the final section presents the conclusion.

Literature Review

Concept of Economic development

Economic development has been a highly debated subject through the centuries and the objective of economic development and growth has paramount importance for any nation. Seers' (1969) seminal works stressed the decline in poverty, inequality and unemployment as indicators of development. This three-prong approach differed from the common singular indicator of income per capita used by organisations such as the World Bank since 1978 given its simplicity in evaluating economic capacity and improvement (Vázquez and Sumner, 2013). While Sen (1983) acknowledged economic growth as one component of economic development, Sen (1999) broadened the view focusing on expanding choice and minimizing deprivations such as hunger, restricted access to healthcare, unemployment and political freedom violation. Additionally, Vázquez and Sumner (2013) formulated a multidimensional taxonomy for developing countries consisting four areas: human development, structural transformation, environmental sustainability, and improved governance and democratic participation. For Lin (2010), economic development involved the organisation of a country's resources and institutions to enable the production and distribution of more products and services as well as facilitating social advancement and expanding prosperity. Similarly, Hillbom (2012) also emphasised societal structural change as part of economic development with reference to Arthur Lewis and Simon Kuznets – first-generation development economists. According to Hillbom, Lewis supported upgrading industries from being less productive non-capitalist to more productive capitalist to structurally change the economy and enhance living standards.

Kuznets' interpretation focused on productivity rise, advances in technology and high growth rates in addition to societal, ideological and economic structural transformation. Thus, it can be seen the substantial time taken for the meaning of economic development to evolve and expand.

Empirical Review

Derouez et al. (2024) investigated the effects in short and long run of renewable and non-renewable energy, technological advancement, population, foreign direct investment, energy export, energy price, and carbon dioxide emissions on economic growth in Saudi Arabia with data from 1990 to 2022 estimated with the Autoregressive Distributed Lag (ARDL) approach and the Vector Error Correction Model (VECM) Granger causality technique. The results of ARDL estimation show that non-renewable energy, renewable energy, population, foreign direct investment, energy export, and energy price positively affect the Saudi economic growth. While technological advancement and carbon dioxide emissions have negative effects on the economic increase of Saudi Arabia. Though, the results of VECM technique show four bidirectional causal relationships between economic growth and non-renewable energy, foreign direct investment, energy export, and energy price.

Guo et al (2023) using China's custom data, they showed that having diverse related export markets facilitates regional export growth due to knowledge spillovers among manufacturers and economies of scope for trade intermediaries. Having many unrelated export markets, however, has a negative impact on regional export growth, as it dilutes valuable resources. Furthermore, they highlighted the role of trade intermediaries, which have been less studied than manufacturers in literature on export market diversification.

Dudziński and Knap (2022) investigated the specific impact of export prices and volume, and the level of economic development on the changes in the export value of regions and countries in the 21st century. Their analyses showed that the scale of the prices' and volume's impact on the growth rates in export values varied across the regions and countries under the study. In the group of manufactures in developed countries and regions the price dynamics was the major factor affecting the dynamics of export values while in developing countries and regions the major role was played by increases in export volume. These discrepancies can be explained primarily with the differences in economic development among countries and regions which in turn translated into their different economic power and employment of different pricing strategies.

Edo et al. (2020) investigated the impact of external debt and export on economic growth of Sub-Saharan African countries, with data from 2005Q1 to 2017Q4 estimated using ARDL panel model and appropriate estimation techniques. The estimation results revealed insignificant positive impact of both external debt and export on economic growth, in the short run. The impact turns negative in the long run, with export exerting a more significant adverse impact than external debt. However, there is long-run convergence among the variables. Furthermore, the estimated model exhibits significant structural stability, hence the estimation results are reliable for purpose of policy making.

Mohsen (2020) investigated the relationship between international trade and economic growth in China from 1980 to 2018. Results from the cointegration test indicate that exports, imports, and FDI have positive relationships with economic growth, but oil price affects it negatively. Exports have the biggest effect on economic growth. Hence, it is important to improve the quantity and quality of exports, as well as motivate the local and foreign investment in the country. Besides, the Granger causality test results show bidirectional causality relationships between exports, imports, oil price, FDI and GDP in the short and long run.

Akighir and Joeseeph (2019) investigated the relationship between non-oil exports and economic growth in selected African countries which include Algeria, Angola, Cameroun, Chad, Egypt, Equatorial Guinea, Ghana, Libya, Republic of Congo, Nigeria and Sudan from 1986-2018. The study has employed the Dynamic Panel Data Models and findings revealed that non-oil exports have positive relationship with economic growth in all the countries except Gabon in the long-run. The study also found that there is positive impact of non-oil exports on economic growth in Angola, Egypt, Equatorial Guinea, Gabon, Libya, Nigeria, Republic of Congo and Sudan in the short-run while there is negative influence in Algeria, Cameroun, Chad and Ghana in the short-run.

Elias et al. (2018) focused on the influence of export trade on the Nigerian economy and the impact of import trade on the Nigerian economy with data from 1980 to 2012, estimated using a multiple regression analysis technique. The study revealed that export commerce had a substantial impact on Nigeria's economic growth. The study recommends that the government make conscious efforts to fine-tune the major macroeconomic factors in order to establish an enabling environment for stimulating foreign trade and encouraging growth in the Nigerian economy, among other things.

Furuoka (2018) examined the relationship between exports and economic growth in Sub-Saharan Africa. He employed innovative econometric methods,

including the Fourier ADF with structural break test, a comparative analysis of three causality tests and a rolling causality test procedure. The findings suggested that there was a statistically significant relationship between exports and economic growth in several Sub-Saharan countries. However, the causal linkages between exports and economic growth in these countries were found to be weak and unstable.

Agbo et al. (2018) investigated the influence of international trade on Nigerian economic growth with the only purpose of determining the impact of export trade and the impact of import trade on the Nigerian economy. Using multiple regression analysis, the study revealed that export trade has a substantial impact on economic growth. The study also showed that import trade had no substantial impact on economic growth. They recommend that the government should make conscious efforts to fine-tune various macroeconomic variables in order to provide an enabling environment for stimulating foreign trade by engaging in more export trade and, in effect, curtailing import trade, to cushion this negative effect on the economy.

Nwamuo (2019) investigated the impact of international trade on economic growth in Nigeria with data from 1981 to 2018 analysed with Co-integration test and regression which showed that the variables in the model were co-integrated. The regression result showed that export, import and exchange rate have a positive impact on the economic growth of Nigeria while trade openness has a negative impact on the economic growth of Nigeria. The result of the granger causality test showed that there is a bi-directional relationship between export and economic growth, bi-directional relationship between import and economic growth, independent causality between exchange rate and economic growth and a bi-directional relationship between trade openness and economic growth

Erkisi (2019) studied the relationships between export (EXP), import (IMP) and economic growth (GDP) in Middle East Countries were examined by using yearly data consist of 312 observations from 1993 to 2016. In the empirical analyses, Dumitrescu & Hurlin Causality Test, Westerlund ECM Panel Co-integration and PGM Estimator were employed. The short-term analyses indicated; a bi-directional causality between GDP and IMP, a bi-directional causality between GDP and EXP, a unidirectional causality from EXP to IMP, EXP and

IMP has a positive impacts on GDP. Similar result was found in the longrun. The country-level outcomes confirmed a long-term relationship for Cyprus, Egypt, Iran, Israel, Jordan, Oman, Qatar, S. Arabia, Turkey and Yemen, but not for Bahrain, Kuwait and Lebanon.

Methodology

This study will adopts the *ex post facto* research method which is a very common and ideal method in conducting research in business and social sciences. It is mostly used where variables are drawn from already concluded events and there is no possibility of data manipulation. As for this work, there are two key reasons for the choice of ex post facto method. Firstly, the data is from a secondary source-World Bank statistical data. Secondly, the reported figures or proxies for the variables of interest are not susceptible to the manipulations or doctoring of the research because, they are information already in the public domain and are easily verifiable.

This study used secondary data drawn from the World Bank statistical data. The required data are annual oil export, per capita income, exchange rate, foreign direct investment, gross domestic product growth rate. The study will employed panel data set for the six (6) countries drawn from the three regions covered in the study. The cross-sections consists of two countries each from Sub Saharan Africa, Asia and MENA. These includes; Nigeria, Republic of Congo, Saudi Arabia, UAE, China and India. The choice of the countries especially for the MENA region, is based on the major crude oil exporters within the region. The fundamental advantage of using panel data, however, lies in its efficacy allowing researchers to examine the cause-and-effect relationship using before-and after observations. Another important motivation for panel data analysis is to reduce the omitted variable bias (Wooldridge, 2002; Baltagi 2001; and Hsiao 1986).

Variables to be consider in the model comprises of dependent and independent variables with reference to the study's objectives. The dependent variable is per capita income. On the other hand, the independent variables consist of the oil export, foreign direct investment, while exchange rate, gross domestic product growth rate will serve as control variables in the model.

Table 3.1: Description of Variables used in the Study

S/N	VARIABLES	SYMBOLS	DESCRIPTION	SOURCE
1	Per Capita Income	PCI	Adjusted net national income per capita (current US\$)	World Statistical Bank data, 2024
2	Oil Export	OE	Fuel exports (% of merchandise exports)	World Statistical Bank data, 2024
3	Total Export	TE	Exports of goods and services (% of GDP)	World Statistical Bank data, 2024
4	Exchange Rate	EXR	The exchange rate to the dollar (\$)	World Statistical Bank data, 2024
5	Foreign Direct Investment	FDI	Foreign direct investment net inflow (as a % GDP)	World Statistical Bank data, 2024
6	Gross Domestic Product	GDP	GDP (constant 2015 US\$)	World Statistical Bank data, 2024

Source: Author's Compilation (2025)

The model formulated for the study is shown below in the functional and econometrics form.

$$PCI = f(OE, GDP, FDI, EXR) \quad (3.1)$$

The econometric form of the model is given below;

$$PCI = \alpha_0 + \alpha OE_{it} + \alpha GDP_{it} + \alpha FDI_{it} + \alpha EXR_{it} + U_{it} \quad (3.2)$$

Result

Results of the Descriptive Statistics

The descriptive features of the data used in this study will be discussed in this section. The mean median kurtosis and the correlation matrix will be used.

Table 4.1: Results of the Descriptive Statistics

	PCI	OE	GDP	FDI	EXR	TE
Mean	7.685914	54.30407	26.56897	2.475261	124.2143	34.82434
Median	7.458883	70.49065	26.75116	1.539710	8.485080	27.08310
Maximum	10.65216	127.4246	30.47442	37.32277	732.3977	98.34239
Minimum	1.581405	0.247357	22.43397	-17.29212	3.671000	7.17E-05
Std. Dev.	1.741858	39.84586	2.028480	5.266384	200.0302	27.84507
Skewness	-0.116250	-0.219132	-0.513181	3.291798	1.601274	0.648414
Kurtosis	2.659771	1.335274	2.890272	22.14032	4.051569	2.497571
Jarque-Bera	1.443404	25.18878	9.056391	3482.414	96.57796	16.44069
Probability	0.485925	0.000003	0.010800	0.000000	0.000000	0.000269
Observations	204	204	204	204	204	204

Source: Author's computation (2025) using Eviews

Table 4.1 convey the descriptive features of the data used in this study. From the information presented, the dependent variable per capita income is \$7.685914

implying that on average the regions covered in the study have a per capita income of approximately \$7.69. The mean oil export for the regions of the study is 54

percent of their GDP. The growth in this regions is 26.56897 which implies that they account for about 26.6 percent of the global economic growth within the period of the study. Foreign direct investment net inflows on average is 2.48 percent of GDP of the three regions used in the study. Their currencies exchange to the United State dollar stood at 124.2/\$ during the period covered by the study. The total export from these regions stood at 34.82 percent of their GDP.

The maximum and minimum per capita income for the period under review stood at \$10.65 and \$1.58 respectively, that of oil export is 127.4 percent and 0.25 percent respectively and 0.005946 percent. Growth of GDP stood at 30.5 and 22.4 for the three regions. Net inflow of FDI recorded 37.3 and 17.29212. For exchange rate it was 732.39/\$ and 3.67/\$ respectively, while for total export as a percent of GDP stood at 98.3 percent and 7.2 percent respectively. For the skewness, the results showed that per capita income, oil export and gross domestic product displayed a negative

skewness implying that most of their observations lies below their mean while foreign direct investment, exchange rate and total export have a positive skewness implying that most of their observations lies above their mean values. Per capita income, oil export, gross domestic product and total export have playtykurtic kurtosis while FDI and exchange rate have leptokurtic kurtosis since their values are clearly greater than 3. The Jarque-Bera statistic is used to measure the normality of the data of the study, from the information we observed that most of the variables are not normally distributed, as the Jarque-Bera probability values are less that 0.05 percent.

Unit Root Test

A first generation panel unit root test by Levin, Lin and Chu, (2002) was used to test for the existence of unit root in the data set. The main assumption of the Levin, Lin and Chu test is cross-sectional independence across units. Thus, they assume a common unit root process.

Table 4.2: Result of Unit Root Test

Unit Root Test at Levels			
Variable	LLU Test Statistic	P-Value	Remark
PCI	3.65594	0.9999	Non-Stationary
OE	-2.21189	0.0135	Stationary
GDP	5.33574	1.0000	Non-Stationary
FDI	-1.72602	0.0422	Stationary
EXR	1.16304	0.8776	Non-Stationary
TE	-2.50978	0.0060	Stationary
Unit Root Test at Levels			
PCI	-4.00833	0.0000	Stationary
GDP	-3.44892	0.0003	Stationary
EXR	-5.60773	0.0000	Stationary

Source: Author's computation (2025) using Eviews

The panel unit root test presented in Table 4.2 revealed that four of the variables employed in the study are stationary at level I(0) and three are stationary at first difference I(1). This is because their p-values at each level are smaller than the 5% significance level established for this investigation. Next, the study conducted the cointegration test in order to determine if a causal relationship exist among the variables of the study.

Results of the Cointegration Test

Cointegration analysis aims to uncover causal relations among variables by determining if the stochastic trends in a group of variables are shared by the series. The non-stationarity of some of the variables at levels necessitate the need for the test. Pedroni (1999, 2004) introduced seven test statistics that test the null hypothesis of no cointegration in non-stationary panels.

Table 4.3: Pedroni Residual Cointegration Test

Series: PCI OE TE GDP FDI EXR				
Null Hypothesis: No cointegration				
Newey-West automatic bandwidth selection and Bartlett kernel				
Alternative hypothesis: common AR coefs. (within-dimension)				
	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	0.637842	0.2618	0.194960	0.4227
Panel rho-Statistic	0.363934	0.6420	1.477461	0.9302
Panel PP-Statistic	-10.98477	0.0000	-0.482242	0.3148
Panel ADF-Statistic	-6.129386	0.0000	-1.446562	0.0740
Alternative hypothesis: individual AR coefs. (between-dimension)				
	Statistic	Prob.		
Group rho-Statistic	2.405736	0.9919		
Group PP-Statistic	-2.307902	0.0105		
Group ADF-Statistic	-1.710240	0.0436		

Source: Author’s computation (2025) using Eviews

The Pedroni Residual Cointegration test result is presented in Table 4.3. The information contained therein showed that some of the p-values are less than 5 percent while some are more than 5 percent, hence we go with the majority of the test. Hence, we fail to reject the null hypothesis of no cointegration among the variable of the study. As a result, the study applies the Panel Ordinary Least regression technique and with the aid of Hausman test to determine the more appropriate between the fixed and the random effect model.

Model Estimation

The study proceed with the estimation of the models formulated for the study in order to determine the relationship that exist between the dependent and independent variables of the study. The panel OLS estimation was conducted then the Hausman test to determine which among the fixed effect model or random effect model is appropriate for the study.

Table 4.4: Panel Least Square

Dependent Variable: PCI				
Method: Panel Least Squares				
Cross-sections included: 6				
Total panel (balanced) observations: 204				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
OE	0.013597	0.003255	4.177123	0.0000
GDP	0.117918	0.091559	1.287894	0.1993
FDI	0.049264	0.019967	2.467310	0.0145
EXR	-0.004884	0.000794	-6.149397	0.0000
C	4.299274	2.613231	1.645195	0.1015
Root MSE	1.407164	R-squared		0.344159
Mean dependent var	7.685914	Adjusted R-squared		0.330977
Hannan-Quinn criter.	3.602948	F-statistic		26.10683
Durbin-Watson stat	0.152529	Prob(F-statistic)		0.000000

Source: Author’s computation (2025) using Eviews

Table 4.4 presents the results for panel least squares. We observed from the results that oil export has a positive and significant impact on economic

development proxied by per capita income. The coefficient of 0.0136 indicates that a one percent increase in oil export leads to a 0.0136 percent increase

in economic development, holding other variables constant. Oil exports are a significant source of foreign exchange earnings for oil-exporting countries. This revenue can be reinvested in infrastructure, education, and healthcare, which contribute to economic development. Gross Domestic Product (GDP) displayed a positive and insignificant impact on per capita income, with a coefficient of 0.117918 shows that a one percent increase in GDP is associated with a 0.118 percent increase in economic development (per capita income). GDP growth may not translate into equitable income distribution. If economic gains are concentrated among a small elite, the impact on per capita income (a measure of average income) may be muted. In some economies, GDP growth may be driven by capital-intensive sectors that do not significantly increase employment or income for the majority of the population.

Foreign Direct Investment (FDI) has a coefficient of 0.049264, hence a one percent increase in FDI leads to a 0.0493 percent increase in economic development (per capita income) and it is also found to be statistically significant. FDI brings in much-needed capital for investment in productive sectors, which can boost economic growth and development. The significance of FDI may reflect a favorable investment climate in the studied countries, encouraging foreign investors.

Exchange Rate (EXR) with a coefficient of -0.004884 indicates that one percent increase in the exchange rate results in a 0.0049 percent decrease in economic development (per capita income), it shows a relationship that is statistically significant. A depreciation in the exchange rate (increase in EXR) makes imports more expensive, which can raise

production costs and reduce disposable incomes, negatively affecting economic development. For countries with foreign-denominated debt, a weaker currency increases the cost of servicing debt, diverting resources away from development projects.

The constant term shows what happens to economic development when all the variables are held constant. The dependent variable increases by 4.29974 percent and the relationship is not significant. There is however joint significance of the variables used in the model. The R-square shows that the independent variables explains about 34 percent variation that takes place in economic development.

Result of the Hausman Test

The study employed the Hausman test (Hausman, 1978) to determine the optimal approach for resolving the issue of unobserved effects. Hence, the Hausman model selection criteria were used to decide between fixed and random effect models. The individual effects and the regressors' lack of correlation serves as the foundation for the Hausman selection test. This test's main goal is to determine whether we can accept the null hypothesis; that is random effects is the best option as against the fixed effects. If we can't, fixed effects estimation will be the best model. When the Hausman test P-value is less than 0.05, we reject the null hypothesis and determine that the fixed effects model is the most appropriate for the study. If not, the random effects model will be the most appropriate.

The null and alternative hypotheses for the test are stated thus;

H₀: Random effect model is appropriate

H₁: Fixed effect model is appropriate

Table 4.5: Results Hausman Test

Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	300.161569	4	0.0000

Source: Author's computation (2025) using Eviews

From the Hausman test is presented in table 4.5, we reject the null hypothesis that the random model is appropriate for the study, hence we proceed to estimate

the fixed effect model for the first model for the general regions.

Table 4.6: Fixed Effect Model

Dependent Variable: PCI
 Method: Panel Least Squares
 Cross-sections included: 6
 Total panel (balanced) observations: 204

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OE	-0.006027	0.002197	-2.742858	0.0067
GDP	1.528907	0.069072	22.13500	0.0000
FDI	0.017479	0.007167	2.438973	0.0156
EXR	-0.002425	0.000535	-4.531614	0.0000
C	-32.35029	1.810427	-17.86887	0.0000
Root MSE	0.476876	R-squared		0.924678
Mean dependent var	7.685914	Adjusted R-squared		0.921184
Hannan-Quinn criter.	1.520714	F-statistic		264.6248
Durbin-Watson stat	0.891516	Prob(F-statistic)		0.000000

Source: Author's computation (2025) using Eviews

In Table 4.6 the fixed effect model for model one is presented. The result showed that all the variables are statistically significant. However, the direction of impact showed that GDP and FDI have a positive relationship with economic development (per capita income). GDP growth reflects an expansion in economic activity, which typically leads to higher incomes and improved living standards. Growth in key sectors such as manufacturing, services and agriculture can create jobs and increase incomes for a significant portion of the population. Oil export and exchange rate have a negative effect on per capita income. Over-reliance on oil exports can lead to economic distortions, such as neglect of other sectors, corruption, and rent-seeking behavior, which hinder overall development. Oil-exporting economies are often vulnerable to fluctuations in global oil prices, leading to economic instability and reduced per capita income. The Dutch Disease may also be at play. FDI brings in much-needed capital for investment in infrastructure, technology, and productive sectors, which can boost economic growth and incomes. FDI often introduces advanced technologies and managerial practices, improving productivity and income levels. Foreign investments typically create employment opportunities, directly increasing incomes for workers. A depreciation in the exchange rate (increase in EXR) makes imports more expensive, which can raise production costs and reduce disposable incomes, negatively affecting economic development. Debt Burden can lead to diverting resources away from development projects. The fixed effect model shows stronger, more statistically significant results for GDP, oil export and exchange rate compared to the panel model. There is also a very high explanatory power from the independent variables of about 92 percent.

Conclusion

This research examined the impact of oil export on the development of selected economies in Asia, SSA, and MENA regions. The study used six countries (two from each region) which include Nigeria, Republic of Congo, Saudi Arabia, UAE, China and India. The study employed data from 1990 to 2023. The research utilised various statistical methods including descriptive statistics, panel unit root test, Hausman test, Panel Least Square estimation, and the fixed effect model. This investigation employed several independent variables, which include; oil export, foreign direct investment, gross domestic product and exchange rate. Per capita income was used as a proxy for economic development which is the dependent variable of the study.

Based on the findings from the study, the following recommendations are made. Policy makers should diversify economies to reduce dependence on oil exports. Invest in alternative sectors such as manufacturing, services, and technology to create a more balanced economic structure. African countries should focus on improving the efficiency and value addition of oil exports while simultaneously investing in non-oil sectors to ensure sustainable growth. Asian countries should also prepare for long-term sustainability by investing in renewable energy and diversifying their economies to avoid over-reliance on oil. MENA region should focus on developing sectors such as tourism, finance, and technology.

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