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Institutions and Development in Oil Exporting Countries

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Abstract

The present paper is aimed at analyzing mutual effects of institutions and development in oil-exporting countries (OECs). For this purpose, the mutual effects were compared between Middle Eastern and non-Middle Eastern OECs. Three-stage least squares model was used to evaluate the model based The World Bank's data for the 1996-2014 period, and Wald test, Kruskal–Wallis analysis, and least significant difference (LSD) test were further used. Function of institutions has become a fundamental subject for research, and Middle Eastern countries are of particular importance in this respect because of their outstanding geopolitical position and significant revenues those make upon exporting oil. Obtained results indicated significant differences in mutual effects of institutions and development between Middle Eastern and non-Middle Eastern OECs. In both groups of the countries, the effect of development on institutions was found to be significantly greater than that of the institutions on the development. Despite similarities in oil exporting factor, geographical environment factor, which includes similarities in culture, religion, and particular customs, affects the mutual effect of institutions and development. In both groups, estimated impact factor of development on institutions exceeded that of institutions on the development. As such, paying attention to the development not only improves its indices, but also automatically improves performance of the institutions. Similar effect is imposed by the institutions, but rate of changes resulted from the development is higher.

Keywords: institutions, development, oil-exporting countries, Middle East.

Introduction

Today, achieving an adequate level of development is a goal for most of socioeconomic programs in various societies, because as soon as a society becomes developed, it starts enjoying its advantages including higher revenues, lower rates of poverty and inequality, and more welfare. This is while, according to stats, more than half of the world population suffer from such problems as unemployment, poverty, and sever income inequality (Goult, I. F. H., & Lee, J. S. F. 1971). Soedjatmoko (1985) stipulated that, development theorists have failed to adequately consider institutional and structural problems as well as the importance of historical, cultural, and religious factors in the growth process. As explained by Acemoglu *et al.* (2014), institutions tend to affect the development through total productivity of production factors, human capital, and physical capital. These effects are so extensive that Engerman and Sokoloff (2011). have attributed differences in the growth paths among American countries

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during the past 500 years to their initial conditions in terms of institutional variables.

Countries with different characteristics in terms of economic, cultural, political, and social structure experience different functions of such mutual effects. The main purpose of the present paper is to present a scientific explanation for describing mutual effects of institutions and development in oil-exporting countries (OECs) separately for Middle Eastern and non-Middle Eastern countries. For this purpose, the following hypothesis was put on test:

There is a significant difference in mutual effects of institutions and development between Middle Eastern and non-Middle Eastern OECs.

Based on the ratio of oil exports to total exports, Middle Eastern OECs herein include Islamic Republic of Iran, Iraq, Saudi Arabia, Oman, Qatar, Kuwait, Bahrain, Jordan, Yemen, Egypt, and United Arab Emirates, while non-Middle Eastern OECs include Azerbaijan, Brunei Darussalam, Congo, Algeria, Gabon, Kazakhstan, Libya, Nigeria, Norway, Russia, Sudan, Turkmenistan, Trinidad and Tobago, and Venezuela.

The paper begins with providing theoretical foundations followed by explaining the research methodology and then presenting an estimation model using which the research hypothesis is tested. The paper is wrapped up by drawing conclusions and presenting some recommendations. It should be noted that, in the present research, institutions are defined as a factor for measuring the institutions.

Research literature

Significantly affecting the development, institutions have been extensively studied since 1990s. Importance of the effect of institutions on the development, either directly or indirectly via such variables as productivity, human capital, financial, development and equality, is so high that some researchers have identified institutions as the main cause of differences in development path among different countries (Glaeser, E.L, La Porta, R, Lopez-de-Silanes, F. and Shleifer, A. 2004 &Rodrik, D, Subramanian, A.&Trebbi, F. 2002).

OECs not only are free of payments to import this good, but rather make large revenues out of exporting this product. Institutions seem to be a determining factor when it comes to the application of this endowment to fuel the development (Eregha P. B, Ekundayo Peter Mesagan .2016)

The negative association between abundance of natural resources and development can be explained via the effect of the abundance of natural resources on economic policies. The wealthier a country is in terms of natural resources, the longer its poor macroeconomic policies are likely to extend and the lower the pressure it perceives toward achieving industrial maturity. Furthermore, rentier groups will root deeper in such circumstances (El-Anshasy,Amany, Kamiar Mohaddes, and Jeffrey B. Nugent .2015).

Bennett *et al* (2017) and Evsey (2016) believe that, institutions can affect the development in long run. One of the most significant approaches to the investigation of direct and indirect relationships between institutions and development is that via human capital (Hugo J. Faria, Hugo M.

Montesinos-Yufa, Daniel R.Moralesd, Carlos E. Navarrob .2016 & Kloosterman ,Andrew,Andrew Schotter. 2016 & Muye,Ibrahim Muhammad, Ibrahim Yusuf Muye.2017).

Today, there are extensive differences in the extent of development and hence levels of income and welfare between developed countries and the rest of the world. Socialists refer to many reasons behind such differences. Some thinkers have recognized geographical and meteorological conditions as factors contributing to the development. Based on this theory, most of underdeveloped countries are located within tropical regions delimited by the Tropic of Cancer and Tropic of Capricorn (Dell, M, Jones, B.F. and Olken, B.A. 2014 & Gallup, J. L, Sachs, J.D. and Mellinger, A.D. 1999).

Some other researchers refer to cultural conditions of each society as the main reason behind its state of development. They identify cultural circumstances of underdeveloped societies, such as of appropriate work ethics, belief in magic, resistance to the adoption of new thoughts and technologies, and excessive belief in the power of supernatural factors in life, as barriers against the societies along the path to reach an appropriate level of development (Guiso, L., Sapienza, P. and Zingales, L. 2006) & Tabellini, G. 2010)

Greif (2006) defined institutions as a system of regulations, beliefs, norms, and organizations which together create a discipline of social behaviors. Institutions of each society differ from those of another society. Acemoglu and Robinson (2008) believed that, the basic issue with economic growth of countries is not the quality of one or several particular institutions, but rather the approach via which the discipline is established across the society. This approach affects institutional quality and hence economic growth.

Differences in the nature and performance of political and legal institutions comprise a reason behind differences in the level of development among different countries. Political and legal institutions may fuel economic development by positively affecting the motivational structure and providing appropriate foundation for productive activities, or rather act as an inhibitory factor by generating deviation from production or increasing transaction costs and investment risks. The development may affect the institutions either directly or indirectly by affecting other variables affecting the institutions, such as human capital, social capital, and natural resource management (Amiri, Behzad .2016).

Presented by Auty in 1994, the so-called resource curse theory points out the inverse relationship between abundance of natural resources and production, which can postpone the development process (Asadi, Zivar; Bahrami, Javid; Talebloo, Reza .2013).

This theory is grounded on the fundamental axiom that poor economies in terms of resources tend to outperform the economies which are rich in resources, further placing an emphasis on institutional and political impacts of abundance of natural resources (Usui, N. 1997).

Whether natural resources act as a curse or blessing is related to the quality of institutions. In dictatorship regimes, natural resources impose negative impacts on economic growth and democratic improvements (Al-Ubaydli, O. (2012).

Countries possessing natural resources along with democratic discipline have been protected against the "resource curse" and rather succeeded to adopt their resources toward achieving economic growth (Ebadi, Jafar; Nikoo Nesbati, Ali .2012).

The negative association between prevalence of natural resources and development can be also explained vie the effect of the prevalence of natural resources on policy selection. The wealthier a country is in terms of natural resources, the longer will the relevant poor macro policies extend and the less will be the pressure perceived toward rapidly achieving industrial maturity. Thirdly, rentier groups tend to grow under such conditions, ultimately reducing the acceleration while interrupting the order of the economic growth (Auty, R.M. 1994).

The impact of abundance of resources on the development index is a function of the quality of institutional and resource management indices. In cases where the quality of institutions is in such a way that the funds raised upon selling natural resources are spent on correcting the economic structure, the natural resources serve as a factor contributing to improved development. Otherwise, the resources tend to degrade the economic structure and serve as an inhibitory factor against any improvement in the development level in long run (El-Anshasy,Amany, Kamiar Mohaddes, and Jeffrey B. Nugent . 2015).

Although the revenues made out of oil exports have negatively affected economic growth in short run, but higher rates of growth in such revenues have been associated with further economic growth in long run. Institutions can be a result of negative impacts of the oil-derived revenues. There is a long-term relationship among actual revenue, investment rate, and actual value of oil production (Cavalcanti, Tiago V. de Vand Kamiar Mohaddes and Mehdi Raissi. 2011).

Acemoglu *et al.* used the data collected from 670 districts in 48 colonies to investigate the effect of institutions on the development. The main institutional variable in this study was the rule of law across the society. Furthermore, development was represented by per capita GDP, with conventional and two-stage least squares methods used. Results indicated positive effect of institutions on the development. Sedighi and Ahmad considered the effect of institutions on economic growth in 29 selected countries around the world during 2002-2006. In this study, institutionalization social technologies, policy-setting and institutional laws, political laws, reduced risk index, and universal institutions index were used to introduce the effect of institutions, while economic growth was represented by GDP. This study investigated the intensity of the effect of various types of institutions on economic development and used active panel technique and generalized method of moments (GMM); the results were indicative of positive significant impacts of institutions on the development.

Law *et al.* (2013) examined the effect of institutions on economic growth using panel data and Granger's causality analysis among 60 selected developing and developed countries during 1996-2008 period. In this research, institutions index and international country risk guide (ICRG) were adopted to demonstrate the state of institutions in each country. According to this study, there is a mutual casual association between institutions and economic growth, with the

patterns of the casualty between institutions and economic performance differing between different income levels.

Describing the institutions index as a key factor in economic development, Shahabadi and Poorjavan (2012) statistically analyzed measures of institutions and particular variables of socioeconomic development during 1996-2006 period in 35 selected countries in southeast of Asia, western Asia, Latin America, and Africa. According to the obtained results, an improvement in the institutional measures imposes significant impacts on the enhancement of development measures, such as per capita income, life expectancy, health, education, unemployment rate, and enhanced social welfare. In 2011, Shahabadi and Dehghani Ahmadabad investigated mutual effects of institutions and overflow of research and development on economic growth among Islamic member states of D-8 Organization for Economic Cooperation during 1995-2009 period. Used to represent the institutions were education quality, business environment, and patent right. The results indicated that, institutions tend to positively affect economic growth of the members of D-8 organization via their mutual effects on the overflow of research and development. Sameti et al. (2011) investigated the effect of institutions on economic development of Southeast Asian countries during 2000-2009. In this study, economic growth was represented by human capital development; the results revealed positive effect of institutions on the economic development. Komeyjani and Salatin (2008) tested the relationship between institutions and economic growth in two groups of countries, namely member states of The Organization for Economic Co-operation and Development (OECD) and The Organization of the Petroleum Exporting Countries (OPEC) using panel data during 1996-2007 period. The results indicated a significant positive association between indices of institutions and economic growth in the both groups of countries, with the effect of such indices on economic growth being larger in member states of OPEC rather than OECD. In addition to the effect of institutions on development, the development may also affect institutions. With increasing the level of revenues made by countries and thus improvement of their development level, investments on health care and education (as the principal components of human capital) will also increase)(Hamoudi, A.A. and Sachs, J.D. 2000& Mehrara, M. and Musai, M. 2013 &Mincer, J.A. 1996 & Sen, K. 2014).

Among other ways through which the development may affect institutions, one may refer to social capital. Social capital refers to the set of norms in social systems which enhance the level of cooperation among members of the society and lower transactions costs. Such an influence on economic growth and development may occur via positively affecting the sense of confidence among people in the society, sense of responsibility to one another, aggregation of human capital, and productivity (Marrocu, E., and Paci, R. 2010 & Sabatini, F. 2005).

Regarding the effect of institutions on financial development, it can be stipulated that, efficient institutions can improve productivity of financial resources via creating relatively equal opportunities for taking advantage of financial resources,

surveillance on financial regulations to keep them clear, establishment of expertized financial institutions, and definition of high-efficiency projects for investment, thereby contributing to improved financial development (Silberberger, M. 2015).

Mutual effects of institutions and development have been always regarded by researchers of economic development, and the resource curse can further increase the importance and necessity of the subject-matter. On the other hand, in most of experimental studies, single-equation estimation methods are used, while the present research adopts a system of equation for such purpose. In a single relationship, the association between one variable and another variable(s) is evaluated without taking into account possible interactions between independent variables and its effect on the dependent variable(s). This is while, a system of equation takes such mutual effects into account (Baltagi, Badi H. 2011).

Method and Methodology

The present study was performed via a system of simultaneous equations. The following system of equations was used herein:

$$DEV_{it} = \beta_0 + \beta_1 INS_{it} + \beta_2\, INO_{it} + \beta_3 HC_{it} + \beta_4\, EQU_{it} + \beta_5 \left(\frac{K}{L}\right)_{it} + \beta_6\, DCP_{it} + \beta_7\, POP_{it} + \varepsilon_{it} \quad (1)$$

$$INS_{it} = \emptyset_0 + \emptyset_1 DEV_{it} + \emptyset_2\, HC_{it} + \emptyset_3 EQU_{it} + \emptyset_4\, DCP_{it} + v_{it} \quad (2)$$

$$EQU_{it} = \chi_0 + \chi_1 DEV_{it} + \chi_2 INS_{it} + \chi_3 HC_{it} + \chi_4 \left(\frac{k}{L}\right)_{it} + \chi_5 GDP_{it} + \chi_6 EF_{it} + \mu_{it} \quad (3)$$

$$DCP_{it} = \lambda_0 + \lambda_1 INS_{it} + \lambda_2\, HC_{it} + \lambda_3 EF_{it} + \lambda_4\, INF_{it} + \Psi_{it} \quad (4)$$

$$HC_{it} = \gamma_0 + \gamma_1 INS_{it} + \gamma_2\, ITC_{it} + \gamma_3 DCP_{it} + \gamma_4\, GDP_{it} + \gamma_5\, FDI_{it} + \phi_{it} \quad (5)$$

In the above equations, DEV is the development index, INS is the institutions index, INO represents innovation, HC is human capital, EQU refers to equality, K/L is the capital intensity, DCP is financial development, POP represents population, GDP refers gross domestic production, EF stands for economic freedom, INF is inflation, IT refers to information technology, FDI refers to foreign direct investment, t is a

particular year and i refers to a particular country.

The indices used to represent human capital, economic freedom, and other variables were taken from the data provided by Barro and Lee (2015), Fraser Institute (2015), and the website of World Bank (2015). When working with variables of different scales, there are chances that particular indices make some deviation in the estimated coefficients. In order to address this problem, all of the variables were normalized according to the procedure provided in United Nations Development Program (2014) for calculating the human development index (Sen and Sudhir, 1994).

Development index (DEV): The index considered to represent the development was obtained by taking weighted average of sub-index data of 10 sectors and 27 variables. Source of such a choice was the report by UN (2007) in relation to the index and sub-indices of sustainable development (Alagh, Y.K. 2010 & Barbier, E.B. and Cox, M. 2003 & Bloom, D.E., Canning, D. and Sevilla, J. 2004 & Bloom, D.E., Canning, D. and Sevilla, J. 2005 & Costantini, V. and Monni, S. 2008 & Costantini, V. and Liberati, P. 2011 & Galor, O. 2011 & Gurgul, H. & Lach, L. 2012 & Hendricks, L. 2004 & Sen, K. 2014 & Silberberger, M. 2015 & Subbarao, P.S. 2008).

Institutions index (INS): This variable was represented by the institutions index as presented by the World Bank. Overall index was obtained as weighted average of six indices including clarity and accountability, political stability and nonviolence, effectiveness of government, quality of regularization, juridical security, and corruption control (Baxamusa, M. and Jalal, A. 2014 & Boikos, S. 2013 & D`Agostino, G., Dunne, J. and Pieroni, L. 2012 & Srithongkul, P. and Pastpipatkul, P. 2013).

Economic freedom (EF): In order to represent this variable, we used economic freedom index which encompassed five sub-indices including government size, legal structure and ownership rights security, access to clean money, freedom of international trade and regulations of credit market, and business.

Human capital (HC): This variable is represented by weighted average of the number of years for which 15 years old or older individuals are educated.

Equality (EQU): This variable is represented by weighted average of five indices, including ratio of poor people to total population, share of top 20 percent wealthiest individuals out of total revenues, share of top 20 percent poorest individuals out of total revenues, percentage of the population who access healthy water, and percentage of the population who access sewage systems.

Capital intensity (K/L): This variable is represented by the ratio of aggregated physical capital to the used number of labor forces.

Financial development (DCP): The ratio of credits allocated to private sector to GDP represents financial development.

Foreign direct investment (FDI): Net inflow of foreign direct investment as a percentage of GDP is used as a measure of this variable.

Inflation (INF): Consumer price is used to represent this variable.

Gross domestic production (GDP): This variable is presented by the value of gross domestic production at fixed price of 2010.

Innovation (INO): This variable is represented by the patents registered by residents of the considered country.

Population (POP): This variable is denoted by the population of the society of interest.

4. Model evaluation and analysis

Results of the model evaluation for non-Middle Eastern OECs are as follows:

Table 1. Summary of evaluations for non-Middle Eastern OECs.

Dependent variable	Independent variables	Coefficient	*t* statistics	*p*-value
Development	Fixed value	0.8049	9.7075	0.0000
	Institutions	0.1991	9.6568	0.0000
	Innovation	0.0608	4.4584	0.0000
	Human capital	0.0558	4.4750	0.0000
	Equality	0.3899	38.2221	0.0000
	Capital intensity	0.0877	4.5356	0.0000
	Financial development	0.0535	3.6625	0.0003
	Population	0.0349	3.9387	0.0001
Institutions	Fixed value	-0.2348	-1.6316	0.1030
	Development	0.8397	11.7646	0.0000
	Human capital	0.1827	7.1113	0.0000
	Equality	-0.3852	-13.8876	0.0000
	Financial development	0.4948	17.9757	0.0000
Equality	Fixed value	-2.3947	-12.6324	0.0000
	Development	2.2751	34.5148	0.0000
	Institutions	-0.6090	-13.5862	0.0000
	Human capital	-0.1055	-3.2134	0.0013
	Capital intensity	-0.2418	-5.4158	0.0000
	GDP	0.0021	0.0720	0.9426
	Economic freedom	0.0920	3.5969	0.0003
Financial development	Fixed value	-1.1986	-2.7702	0.0057
	Institutions	0.9901	22.3384	0.0000
	Human capital	0.0087	0.2410	0.8096
	Economic freedom	0.0533	1.7210	0.0855
	Inflation	-0.0046	-0.0990	0.9211
Human capital	Fixed value	0.6287	2.1010	0.0358
	Institutions	1.0904	11.4917	0.0000
	Information technology	-0.0816	-1.5393	0.1240
	Financial development	-0.0410	-0.4248	0.6710
	GDP	0.2095	3.8627	0.0001
	Foreign direct investment (FDI)	-0.0721	-0.9375	0.3487

Source: The research findings.

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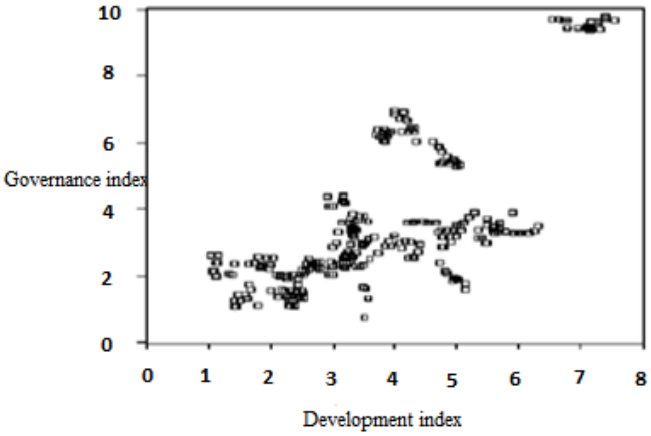

Figure 1. Association between development and institutions in non-Middle Eastern OECs.

Results of the model evaluation for Middle Eastern OECs are as follows:

Table 2. Summary of evaluations for non-Middle Eastern OECs.

Dependent variable	Independent variables	Coefficient	*t* statistics	*p*-value
Development	Fixed value	1.7992	18.3342	0.0000
	Institutions	0.0249	1.4047	0.1604
	Innovation	0.0229	2.3850	0.0173
	Human capital	0.0836	7.8098	0.0000
	Equality	0.3345	22.9063	0.0000
	Capital intensity	0.0500	4.1705	0.0000
	Financial development	0.0766	6.2389	0.0000
	Population	-0.0251	-2.2218	0.0265
Institutions	Fixed value	-0.0306	-0.0575	0.9542
	Development	1.0643	4.8679	0.0000
	Human capital	-0.0112	-0.2102	0.8336
	Equality	-0.4383	-5.5904	0.0000
	Financial development	0.7213	13.6483	0.0000
Equality	Fixed value	-3.7383	-10.6954	0.0000
	Development	2.5273	22.3938	0.0000
	Institutions	-0.2089	-3.9170	0.0001
	Human capital	-0.1430	-4.1816	0.0000
	Capital intensity	-0.1341	-3.8749	0.0001
	GDP	-0.0475	-1.5435	0.1230
	Economic freedom	-0.0869	-1.8518	0.0643
Financial development	Fixed value	-1.5423	-2.6894	0.0073
	Institutions	0.9955	15.2179	0.0000
	Human capital	0.0680	1.3140	0.1891
	Economic freedom	-0.0139	-0.1711	0.8642
	Inflation	-0.0651	-0.8253	0.4094
Human capital	Fixed value	3.3477	7.4992	0.0000
	Institutions	0.3559	3.9126	0.0001

	Information technology	0.2076	3.3664	0.0008
	Financial development	-0.2101	-2.2457	0.0249
	GDP	0.4406	6.9421	0.0000
	Foreign direct investment (FDI)	0.5784	3.7772	0.0002

Source: The research findings.

Central focus of the present research is on the difference and distinction in the institutions-development relationship between Middle Eastern and non-Middle Eastern OECs. Accordingly, Equations (1) and (2) are of more importance as those describe such relationship.

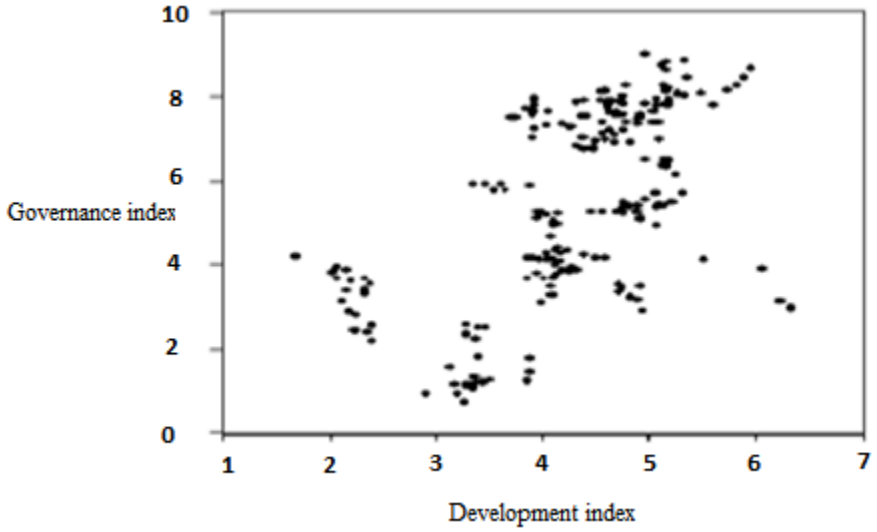

Figure2. Association between development and institutions in Middle Eastern OECs.

Mutual effects of institutions and development were found to be positive and consistent between Middle Eastern and non-Middle Eastern OECs; in most cases, the effects were significant at significance levels beyond 97%, but the effects are not identical. Indeed, effect of institutions on development is higher Middle Eastern OECs rather than non-Middle Eastern ones. However, significantly different results were observed when it came to the effect of development on institutions. Accordingly, compared to non-Middle Eastern OECs, Middle Eastern OECs indicated larger effects of development on institutions.

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Table 3. Comparison of mutual effects of institutions and development.

Group of countries	Type	Impact factor
Middle Eastern OECs	Impact factor of institutions on development	0.024885
	Impact factor of development on institutions	1.064252
Non-Middle Eastern OECs	Impact factor of institutions on development	0.199086
	Impact factor of development on institutions	0.839674

Source: The research findings.

Wald test

Based on outputs of evaluation of the system of simultaneous equations via three-stage least squares method, Wald test results revealed a significant difference in the evaluated coefficients between Middle Eastern and non-Middle Eastern OECs, in terms of both the effect of institutions on the development and that of development on the institutions.

Table 4. Summary of the results of Wald test for impact factors.

Influence relationship	Statistic	*p*-value
Impact factor of development on institutions in Middle Eastern OECs, as compared to that in non-Middle Eastern OECs	9.90079	0.0017
Impact factor of development on institutions in non-Middle Eastern OECs, as compared to that in Middle Eastern OECs	1.055181	0.3043
Impact factor of institutions on development in Middle Eastern OECs, as compared to that in non-Middle Eastern OECs	71.39782	0.0000
Impact factor of institutions on development in non-Middle Eastern OECs, as compared to that in Middle Eastern OECs	96.68684	0.0000

Source: The research findings.

Kruskal-Wallis test and LSD test

In addition to Wald test, the Kruskal-Wallis test is used to determine equality (i.e. difference) of means of two populations. In all test cases, evaluated chi-square was less than the value of chi-square mentioned in the table, confirming the results of the Wald test at 95% confidence.

Results of Wald and Kruskal-Wallis tests did not reject the significant difference in the influences of institutions on development and development on the institutions between Middle Eastern and non-Middle Eastern OECs; as such, this difference can be tested via LSD test.

Lack of difference in the impact of institutions on development between Middle Eastern and non-Middle Eastern OECs was acceptable at less than 1% significance. In other words, the LSD test results did not reject the significance difference between the two effects at 99% significance. The significance level for the effect of development on the institutions was also 99%.

Table 5. Results of LSD test.

Groups of countries	Direction of effect	Statistic	Coefficient difference	*p*-value
Non-Middle Eastern OECs versus Middle Eastern OECs	Effect of institutions on development	0.026013	0.1742	0.0000
	Effect of development on institutions	0.048401	0.2245	0.0000

Conclusions

The results indicate significant differences in mutual effects of development and institutions between Middle Eastern and non-Middle Eastern OECs. In both groups, estimated impact factor of development on institutions exceeded that of institutions on the development. As such, paying attention to the development not only improves its indices, but also automatically improves performance of the institutions. Similar effect is imposed by the institutions, but rate of changes resulted from the development is higher.

Even though the sign of impact factor of development on institutions and also that of the institutions on development was positive for both groups of the countries, but their magnitudes are different. Accordingly, effect of development on institutions was higher in non-Middle Eastern OECs rather than the Middle Eastern OECs. In addition, effect of institutions on the development was much greater in non-Middle Eastern OECs rather than the Middle Eastern ones. The difference between the two groups of countries was significant in terms of both the effect of institutions on the development and vice versa. On the other hand, looking into each group of countries, the influences were not the same. In non-Middle Eastern OECs, the impact of development on institutions was 4.22 times as large as that of institutions on the development, while in the Middle Eastern OECs, the effect of development on institutions was 42.77 times as large as that of the institutions on the development. Performed to determine equality of the coefficients, Wald test confirmed such differences, so that null hypothesis of the research was not rejected. This hypothesis refers to the differences in geographical environment, which itself encompasses such factors as religion and particular customs despite similarities in the definition of an oil-exporting country. Non-rejection of the mentioned hypothesis means that, despite similarity in the nature of exporting oil, distinctions in geographical environment can lead to differences in the effects of institutions on development and that of development on institutions. In both groups of the countries, the effect of development on institutions was found to be significantly greater than that of the institutions on the development.

Recommendations

Scope of this study and the used variables are so limited that provide o opportunity to present effective policy proposals. On the other hand, the process of changing economic

variables, particularly what we define as development and institutions, is extremely time-intensive and even impossible and not advisable in most cases.

The present study focused on Middle East and oil export as an effective factor in the process of development. Accordingly, it is recommended to undertake similar studies on Middle Eastern and non-Middle Eastern countries that do not export oil. The recommended studies will provide an opportunity for investigating the effects of geographical environment, local customs, and oil export in an alternative approach in terms of their differences. The reason behind larger impact of development on institutions rather than that of the institutions on the development is a much important subject-matter which can explain some other characteristics of the relationship between development and institutions.

The development is known to impose larger contributions into improvement of institutions, as compared to the distribution of institutions into the improvement of development. This holds true for all oil-exporting and non-oil-exporting countries in the Middle East. As such, paying attention to the development not only improves its indices, but also automatically improves performance of the institutions. Similar effect is imposed by the institutions, but rate of changes resulted from the development is higher.

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