

## Impact of Resource Rents and Institutional Quality on Economic Growth: An Approach of Panel Threshold Analysis

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### ABSTRACT

*This study has determined the asymmetric threshold impact of IQ on the link between resource rent and economic progress in seven Asian nations. For this purpose, this study took the data from 1996 to 2018. In accordance with the multiple effects of threshold IQ regression results, capital formation and exchange rate with institutional quality are ineffective for the economic growth of concerned Asian economies. However, the multiple effects of debt with institutional quality have enhanced the economic growth, while trade term has reduced the growth level of selected economies. Moreover, the findings of the threshold effect of resource rents are presented in which institutional quality regulates the resource rents. According to the outcomes,  $RERit-1$  ( $INQit-1 \leq -1.401$ ) shows an inconsequential influence of resource rents on economic growth during the institutional quality regulations. However,  $RERit-1$  ( $-1.401 < INQit-1 \leq -1.310$ ) and  $RERit-1$  ( $INQit-1 > -1.310$ ) have boosted the economic growth of Asian economies at medium-good level IQ.*

**Keywords:** Resource Rents, Institutional Quality, Exchange Rate, Economic Growth, Threshold IQ Regression, Asian Countries.

### INTRODUCTION

The significance of natural-resources in the development process considered a matter of contention in the literature for decades. Some researchers believe that nations that rely primarily on exploiting and exporting natural resources have lower growth rates than other types of economies (Haggard and Tiede, 2011). Despite the fact that the availability of resources should theoretically lead to a rise in wealth and purchasing power (Badeeb *et al.*, 2017; Holden, 2013). Such conclusions are polarizing in the research on the resource-development nexus. The "natural resource curse paradox" is the name given to this conundrum. Roy *et al.* (2013) highlight that the natural resource paradox is known as slow or negative economic growth in nations with abundant natural resources.

It is suggested that a number of factors may explain the natural resource rent curse. Resources, i.e., services or manufacturing, are consumed by natural resource extraction methods. Exporting countries' economies are unstable because of the worldwide volatility of natural resource prices. To make matters worse, non-inclusive governments may take

advantage of the concentrated supply of many natural resources in order to increase their own authority at the expense of economic development (Saha and Ali, 2017). The reason for the resource curse is to concentrate all efforts on single diligence while ignoring other critical economic areas (James, 2015). As a consequence, economies become too reliant on commodity prices, and total GDP growth becomes exceedingly erratic (Roy *et al.*, 2013). Furthermore, Boyce and Emery (2011) said that political corruption in resource rights, law rules, and distribution of income often leads to this evil curse of resources, subsequent to the burdensome directive of a specific enterprise.

Contrary to popular belief, new research shows that natural resources may spur economic development and prosperity, casting doubt on the so-called "resource curse" (Alexeev and Conrad, 2011; Brunnschweiler, 2008; Brunnschweiler and Bulte, 2008). Prior to the twentieth century, natural resources, typically essential commodities, played an important role in global commerce and economic expansion. In the early phases of their economic growth, famous nations such as Australia, the United States of America, and Canada reaped significant benefits from basic commodity exports. Ecuador has recently seen a large revenue gain due to its resource boom, while Norway has utilized its natural resources to ensure future generations' economic success (Papyrakis, 2016; Papyrakis and Gerlagh, 2003; Auty and Mikesell, 1998).

The apparent durability of institutional quality is another reason to question the existence of the resource curse and the difficulty of drawing evocative appraisals flanked by advanced and less established nations (Bennett *et al.*, 2017). Africa and other emerging countries' institutions are seen as having worse quality than those in more developed areas. Accordingly, resource-rich Sub Saharan nations have more pathetic institutions than resource-poor Sub Saharan nations, which is a problem (Gueye and Lee, 2015). A higher standard of living and more substantial economic development may be found in countries with a wealth of natural resources, as well as robust autonomous accountability, high institutional qualities, reduced intensities of corruption, and a greater degree of integration between the various government agencies (Mehlum *et al.*, 2006; Bulte *et al.*, 2005).

It is clear that institutional quality significantly impacts the economic value of natural resources, both in cross country and vibrant panel regressions. According to the above reasoning, if a state is cursed by natural resources, indications may be discovered in the state's current political standing, structures, and institutional progress (Arvanitis and Weigert, 2017; Ayelazuno, 2014; Bakwena *et al.*, 2009). According to the present research, raising IQ may help developing nations overcome a broad range of problems, including corruption and rising crime, as well as lagging foreign investment and slow development. Policymakers and economic development advocates, despite this, have shockingly poor awareness and grasp of this phenomenon. Improving institutional quality has two purposes: it supports economic progress and democratization (Carothers, 2003). As a result, institutional quality is critical for resource-rich nations to gain more control over their fates by developing policies that are most likely to promote economic development (Karabegovic, 2009). A country's resource rent does not improve its economic status but instead becomes a burden when its economy is characterized by low institutional quality (Antonakakis *et al.*, 2017).

The fundamental reason for the disparity in economic development across nations is their institutions (Acemoglu and Robinson, 2010). Certain nations undertaking political

transitions and institutional changes to strengthen their economies convert a sizable resource windfall into an economic investment aimed at enhancing their long-term wellbeing. When institutions fail to maintain or increase the sound quality level of their operations, they become victims of the resource curse. The resource curse may be avoided or exacerbated depending on a country's IQ, which was determined via the use of PTM in this research. As a consequence, this study contributes significantly to the literature on economic development and natural resource possibilities in resource-rich Asian economies. A single threshold level and linear connections have been the focus of earlier studies in this field, which may not necessarily be the optimal strategy (Sarmidi *et al.*, 2014). This research is unusual in that it identifies two critical threshold levels where natural resources may favorably contribute to economic progression. Nonlinearity between economic progression and natural resource availability is confirmed in this research, as is the presence of modest changes in institutional quality over the course of the study period. Thus, the research contributes significantly to the current literature by giving evidence of the presence of various threshold impacts of institutional quality and the removal of the resource curse above and below the threshold level of institutional quality.

The rest of this research is arranged in the following manner: Section 1 briefly explains the study's background. Previously published empirical research on the resource curse and economic progression are briefly discussed in Section 2. Specifically, Section 3 discusses data, source of data, estimation technique, and model specification. Section 4 shows the empirical results of the study. The last section is section 5, which shows the study's conclusion and policy recommendations.

## **Literature Review**

Past studies find a mixed relationship between resource curse and resource abundance in selected Asian countries. Some studies provide satisfactory directions and few threatening following the potential economic growth. According to Raza *et al.* (2022), Gylfason (2004), and Stijns (2005), evidence suggests that some resource-rich nations have been able to overcome the curse. On the other hand, some other nations maintain their economic progression for the short-term, and these nations fail to maintain their living standard for the future (Jiang *et al.*, 2022; Ouoba, 2016).

It is possible to improve national economic progression by managing a nation's extractable natural resources in an effective manner. Unfortunately, apparent misuse of such riches, weak development rates, societal conflicts, and civil war in resource-rich nations have resulted in a large body of research on what is now known as the resource curse. Generally, institutional quality is the foundation of socio-economic development, mainly when issues such as corruption and freedom of speech exist and where poor institutional structures substantially influence economic progress (Ali *et al.*, 2018; Ozpolat *et al.*, 2016). According to some empirical research, institutional efficiency enhances the progression of economic activities in developed nations but has an encouraging effect and may even have an adverse effect on economic progression in emerging countries.

Auty (2017) explained that there had been a change in the patterns and dynamics of global economic development that must be taken into account in order to reconcile the contradictions in resource curse analysis since the new century. According to the inclusion of current data, the post-1997 recovery years have a greater weighting in comparison to

those affected by the 1973 to 1985 growth crash. Boschini *et al.* (2007) discussed that there are more reasonable answers in the literature today that prior research couldn't explain such varied development experiences despite the availability of the same resources.

These results contradict the resource curse concept that has been found in many empirical investigations on the influence of IQ and institutions on resource and economic development. Such investigations reveal that the problem is not straightforward. Atkinson and Hamilton (2003) point out that institutions are critical to eliminating the curse by preventing rent-seeking behavior, decreasing the danger of violent civil war, and speeding effective resource allocation (Batool *et al.*, 2022; Isham *et al.*, 2005; Robinson *et al.*, 2006). Deacon (1994) highlights government instability, failure to execute the law, and government unaccountability are examples of institutional quality. Other examples include widespread lawlessness, such as guerilla warfare, revolutions, frequent constitutional changes, and government unaccountability. Frankel (2010) examined the inconsistency between economic progression and human capital. The fundamental reason behind inconsistency is the different resources. Ishan *et al.* (2005) also discussed the inconsistency between economic growth and different sources of resources. Brunnschweiler and Bulte (2008) elaborated on the inconsistencies between economic progression and resource rents, and the results suggest that inconsistency in natural resources leads to resource abundance. Furthermore, Auty (2017) argued that the present global situation is uncertain when the worldwide prevalence of resource curse effects is emaciated.

There has been a change in global economic development patterns and dynamics that must be taken into account in order to resolve the ambiguities in resource curse valuations since the turn of the century. Excluding 1970s-era growth collapses from a post-1997 period of economic resurgence raises its importance compared to earlier periods (Chunyu *et al.*, 2021; Auty, 2017). There are more credible answers in the literature today why prior research couldn't explain such varied development experiences despite the availability of the same resources (Huang *et al.*, 2020; Hanif *et al.*, 2018; Hanif *et al.*, 2017; Mehlum *et al.*, 2006; Boschini *et al.*, 2007).

The resource curse theory has been disproved by the results of a number of empirical research that have investigated the effects of IQ and institutions on the growth of resources and economies. These studies have produced surprising findings that contradict the idea. Such assessments reveal that the situation is not straightforward. According to Auty (2017), for example, institutions are critical to countering the curse by decreasing the likelihood of violent civil war and speeding up effective resource allocation by avoiding rent-seeking behavior, reducing corruption, and raising IQ levels (Wang *et al.*, 2022; Hanif *et al.*, 2019; Collier and Hoeffler, 1998; Atkinson and Hamilton, 2003; Isham *et al.*, 2005; Robinson *et al.*, 2006). According to Deacon (1994), general lawlessness, including but not limited to guerilla warfare, revolution, frequent constitutional change, political instability, the inability to execute the law, and government unaccountability are all components of IQ. However, IQ is not restricted to these aspects.

This can be seen more clearly if we compare Norway and Nigeria, both of which are oil-rich countries; however, Nigeria has inferior institutional quality, whereas Norway has good institutional quality. This comparison may allow us to see the extent to which institutions can have an impact on economic growth. The fact that Norway has been able to break free of the resource curse and enjoy sustained economic growth is evidence that

the quality of a nation's institutions plays a significant role in determining how effectively oil revenues are put to use. Li et al., 2022; Hanif et al., 2020; Toto same (2009); Larsen (2005) discussed Norway as being one of the countries in Europe with the lowest standard of living in the early 1900s, but it has since converted its economy into one of the nations with the greatest quality of life in the world. However, Nigeria is notoriously bad at managing the profits from its natural resources and has a low average IQ and a propensity toward corrupt practices. Because of this, the extraction of Nigeria's oil resources has not significantly increased the country's GDP (Hanif et al., 2019; ; Nuseir et al., 2020; Asada et al., 2020; Hanif et al., 2017).

The effect of natural resources on economic progress is non-monotonic with respect to the quality of institutions (Hanif et al., 2017; Hanif et al., 2018a; Boschini et al., 2007). Mehrara (2009) also uses panel regressions to investigate the presence of threshold effects in the link between oil income and production growth in oil-exporting nations. Their combined empirical findings point to the existence of a threshold beyond which an increase in oil income starts to have a negative impact on production. This barrier is strongly suggested by their findings. The findings suggest that the cutoff point for the growth rate of oil revenues, at which point oil revenues begin to reduce growth considerably, is somewhere in the range of 18–19 percent for nations that are major exporters of oil. According to another research on oil-exporting nations and the natural resource curse theory, there is a threshold of oil dependency where the link between economic progress and its factors may be smoothed over. Seghir and Damette (2013) provide compelling evidence that oil income has nonlinear effects on economic development and that the resource curse only emerges when the country is heavily dependent on oil. Mehrara (2009) examined that not accounting for threshold effects would falsely indicate that an increase in resource income raises the rate of economic growth, contrary to the linear assumptions. As shown in prior work, a failure to account for nonlinearities hides the resource curse in many nations, particularly during severe resource booms. This is especially true during times when resource prices are surging. Studying the threshold influences of IQ on the relationship between resource rents and economic progress in resource-rich Asian countries may provide policymakers and practitioners with better insight regarding ways to alleviate the effects of the resource curse. All of these reasons can be found in the previous sentence.

### ***Data and empirical strategy***

Within the panel data, there are two kinds of explanatory factors to choose from. In order to determine whether or not there is an asymmetric threshold impact of IQ on the link between resource rent and economic progress, the threshold variable, IQ, is the variable that is examined. In addition, the research incorporates control variables that are often used in the examination of economic growth. These control variables include rent from resources, gross capital formation, debt, trade term, exchange rate, and institutional quality. For this research, balanced panel data were obtained from the World Development Indicator (WDI) and the International Monetary Fund (IMF) database for seven Asian nations: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. This study took the data from 1996 to 2018.

### ***Panel threshold***

In contrast to the conventional technique, in which the threshold level is established based on external factors, the endogenous determination of the threshold effects between the variables allows for a more accurate reflection of the actual state of the system. It is not feasible to obtain confidence intervals for a selected threshold if the threshold level is chosen randomly or if it is not derived from an empirical model. This prevents confidence intervals for the specified threshold from being calculated. In light of this, we carry out an econometric calculation of the endogenous splitting of samples (Raouf et al., 2021; Abdulmuhsin et al., 2021; Basheer et al., 2021; Yan et al., 2020). This research employs the bootstrap approach because it allows us to create reasonable confidence intervals and evaluate the threshold impact in terms of statistical significance (Hansen, 2000). The use of this research is essential in order to ascertain the threshold impacts of IQ on the linkages between resource availability and economic progress. In addition, we determine the values of the variables' lags, which allows us to correct any possible endogeneity issues. The lagged values of the dependent variable have no link to the error terms when using the dynamic panel data approach. Therefore, adding the lag value removes this association, improves the predictability of predictions, and strengthens the predictability of produced predictors. We are making the assumption that the related biases in the research can be solved using these econometric tools. Because of this, both the traditional OLS standard error and the White-correlated standard error are taken into consideration in order to evaluate the relationship features. The robustness of the effects was examined using instrumental variable estimation approaches, which have also been included in the research. Therefore, after applying the panel fixed effect threshold model (PTM) to determine the threshold values, the system GMM predictors are used to determine the intercepts of the coefficient estimate.

However, the equation for IQ threshold is given below:

$$ECG_{it} = \beta_i + \beta_1 ECG_{it-1} + \beta_2 GCF_{it-1} + \beta_3 DBT_{it-1} + \beta_4 TOT_{it-1} + \beta_5 EXR_{it-1} + \beta_6 INQ_{it-1} + \beta_7 GCF_{it-1} INQ_{it-1} + \beta_8 DBT_{it-1} INQ_{it-1} + \beta_9 TOT_{it-1} INQ_{it-1} + \beta_{10} EXR_{it-1} INQ_{it-1} + \beta_{11} RER_{it-1} (INQ_{it-1} \leq \eta_1) + \beta_{12} RER_{it-1} (\eta_1 < INQ_{it-1} \leq \eta_2) + \beta_{13} RER_{it-1} (INQ_{it-1} > \eta_2) + \mu_{it}$$

In the above equation,  $\beta_i$  is an individual effect, while  $\mu_{it}$  is the error towards countries and time span. However,  $ECG$  is economic growth,  $RER$  as resource rents,  $GCF$  as gross capital formation,  $DBT$  as debt,  $TOT$  as trade term,  $EXR$  as exchange rent, and  $INQ$  as institutional quality. Further, multi threshold regime notation is fixed in the above equation.

### **Results and Discussion**

This section of results and discussion starts with some statistical examination to evaluate the statistical worth of the empirical model. Table 1 of the descriptive statistical summary shows that the mean and standard deviation have variations and indicate the variables' significant statistical distinction. However, almost all variables have positive skewness, showing a positive direction towards respective mean points. Further, kurtosis is also meaningful in indicating the peakedness of variables. In another frame of statistical examination, the correlation matrix in table 2 suggests that  $RER$ ,  $GCF$ ,  $DBT$ ,  $TOT$ ,  $EXR$ , and  $INQ$  all have a moderate correlation with  $ECG$ , and only  $INQ$  is negatively correlated. Tables 1 and 2 indicate that the overall empirical model has shown perfection in statistical terms and leads toward further econometric analysis.

**Table 1:**

**Descriptive Summary**

	<b>ECG</b>	<b>RER</b>	<b>GCF</b>	<b>DBT</b>	<b>TOT</b>	<b>EXR</b>	<b>INQ</b>
<b>Mean</b>	5.809	20.280	22.105	55.020	90.105	548.819	-0.861
<b>Std. Dev.</b>	2.970	12.880	19.081	2.096	50.100	309.287	0.519
<b>Skewness</b>	1.840	0.985	3.101	4.008	3.706	4.903	0.198
<b>Kurtosis</b>	3.809	2.107	3.985	4.208	5.007	16.319	1.980

**Table 2:**

**Correlation Matrix**

	<b>ECG</b>	<b>RER</b>	<b>GCF</b>	<b>DBT</b>	<b>TOT</b>	<b>EXR</b>	<b>INQ</b>
<b>ECG</b>	1						
<b>RER</b>	0.501	1					
<b>GCF</b>	0.312	0.228	1				
<b>DBT</b>	0.431	-0.214	-0.998	1			
<b>TOT</b>	0.449	0.278	0.190	0.101	1		
<b>EXR</b>	0.329	0.284	0.221	0.196	0.301	1	
<b>INQ</b>	-0.558	0.372	0.418	0.119	0.094	0.104	1

In the next step, we interpret the results of threshold effects and estimates. Table 3 of threshold results signpost three threshold effects such as single, double, and triple threshold with F-stat and p-value and relate them with critical values at 1, 5, and 10 percent. According to the outcomes, the single threshold and double threshold have significant p values of 0.006 and 0.005, respectively. On the other hand, the triple threshold effect p value is 0.890, which is insignificant and considered an irrelevant threshold. In other words, threshold effects are considered two thresholds in regression estimation. Further, in table 3, threshold estimates and asymptotic values are also reported, which are taken into consideration at a 95 percent confidence interval. These categories indicate the IQ levels at low, medium, and good IQ.

**Table 3:**

**Threshold Effects and Estimates**

<b>1</b>	<b>Single Threshold</b>	
	F-stat	21.5
	P-value	0.006
	Critical Values at 1%, 5%, and 10%	25.50, 17.48, 13.58
<b>2</b>	<b>Double Threshold</b>	
	F-stat	45.90
	P-value	0.005
	Critical Values at 1%, 5%, and 10%	35.95, 25.50, 18.21
<b>3</b>	<b>Triple Threshold</b>	
	F-stat	51.20
	P-value	0.890
	Critical Values at 1%, 5%, and 10%	25.50, 10.11, 6.56
<b>Estimation</b>	<b>95% C.I</b>	
-1.401	-1.415, -1.385	
-1.310	-1.350, -1.290	

Table 4 of threshold regression results, GMM indicates the robustness of threshold effects during the low, medium, and good IQ levels. According to the findings, GCF and DBT are significant for economic growth but offended the growth level of Asian economies. At the same time, the individual effect of TOT and EXR is insignificant for the ECG of selected Asian economies. Furthermore, institutional quality (INQ) is notable for economic growth and broadly affects designated economies' growth but in a destructive way.

**Table 4:**

**Threshold Regression Results**

<b>Regr.</b>	<b>Coeff.</b>	<b>OLS SE.</b>	<b>WHITE SE.</b>	<b>GMM.</b>
<i>ECC<sub>it-1</sub></i>	0.191	0.042	0.028	1.210***



$GCF_{it-1}$	0.002	0.019	0.009	-0.002*
$DBT_{it-1}$	0.012	0.009	0.007	-0.005*
$TOT_{it-1}$	-0.062	0.028	0.010	0.002
$EXR_{it-1}$	0.093	0.079	0.068	-0.001
$INQ_{it-1}$	0.825	2.091	1.837	- 8.489***
$GCF_{it-1} INQ_{it-1}$	0.013	0.009	0.018	0.008
$DBT_{it-1} INQ_{it-1}$	0.025	0.014	0.010	0.009***
$TOT_{it-1} INQ_{it-1}$	-0.091	0.005	0.004	-0.002*
$EXR_{it-1} INQ_{it-1}$	-0.008	0.015	0.018	0.004
$RER_{it-1} (INQ_{it-1} \leq -1.401)$	-0.007	0.009	0.011	0.007
$RER_{it-1} (-1.401 < INQ_{it-1} \leq -1.310)$	0.096	0.019	0.025	0.029***
$RER_{it-1} (INQ_{it-1} > -1.310)$	0.008	0.009	0.007	0.020**

After the individual effect, the findings of multiple effects measure the multiple effects of GCF, DBT, TOT, and EXR with INQ. In accordance with the multiple effects of threshold IQ regression results,  $GCF_{it-1} INQ_{it-1}$  and  $EXR_{it-1} INQ_{it-1}$  are insignificant for ECG and show that both gross capital formation and exchange rate are ineffective for the economic growth of concerned Asian economies. However,  $DBT_{it-1} INQ_{it-1}$  and  $TOT_{it-1} INQ_{it-1}$  are significant for ECG but in different directions. The multiple effects of DBT with INQ ( $DBT_{it-1} INQ_{it-1}$ ) have enhanced the ECG of Asian economies at a \*\*\* significant level. In contrast, TOT with INQ ( $TOT_{it-1} INQ_{it-1}$ ) has reduced the growth level of selected economies at \* level. Moreover, the findings of the threshold effect of resource rents are presented in which institutional quality regulates the resource rents. According to the outcomes,  $RER_{it-1} (INQ_{it-1}$

$t \leq -1.401$ ) shows an inconsequential influence of RER on ECG during the institutional quality regulations. However, during  $RER_{it-1} (-1.401 < INQ_{it-1} \leq -1.310)$ , resource rents have boosted the economic growth of Asian economies at medium-level IQ. In the next step of good level IQ,  $RER_{it-1} (INQ_{it-1} > -1.310)$  indicates that RER comprehensively boosted the ECG of concerned economies at \*\* significant level. In concluded terms, resource rents under institutional quality have upsurged the economic growth at the IQ levels of medium and good.

## Conclusion

In this study, we have examined the asymmetric threshold impact of institutional quality on the link between resource rent and economic progress in seven Asian nations. Regarding this purpose, this study arranged the data from 1996 to 2018. In the initial step of threshold effects and estimates, results signpost three threshold effects such as a single, double, and triple threshold. According to the outcomes, the single threshold and double threshold have significant p values, while the triple threshold effect is considered an irrelevant threshold. Further, threshold estimates indicate the IQ levels at low, medium, and good levels. According to the results of threshold regression individual effect, capital formation, debt, and institutional quality are significantly snubbed economic growth. In contrast, trade terms and exchange rates are inconsequential for the growth level of selected Asian economies. After that, multiple effects of threshold IQ regression results indicate that capital formation and exchange rate with institutional quality are ineffective for economic growth. However, debt with institutional quality positively influences economic growth, while trade term with institutional quality reduces the growth of concerned economies. Moreover, the findings of the threshold effect of resource rents are presented in which institutional quality regulates the resource rents. According to low IQ outcomes, resource rents show an unimportant influence on economic progression. In contrast, resource rents have boosted the economic growth of Asian economies at medium-good levels of IQ. In the end, findings suggested that the institutions should focus on improving their systems to enhance their effectiveness for growth. Further, resources should be accountable for consumption and rent receiving to promote green growth.

## References:

- Abdulmuhsin, A. A., Abdullah, H. A., & Basheer, M. F. (2021). How workplace bullying influences knowledge management processes: a developing country perspective. *International Journal of Business and Systems Research*, 15(3), 371-403.
- Acemoglu, D., & Robinson, J. (2008). *The role of institutions in growth and development* (Vol. 10). Washington DC: World Bank.
- Alexeev, M., & Conrad, R. (2011). The natural resource curse and economic transition. *Economic Systems*, 35(4), 445-461.
- Alharthi, M., & Hanif, I. (2020). Impact of blue economy factors on economic growth in the SAARC countries. *Maritime Business Review*. 5(3), 253-269.
- Alharthi, M., & Hanif, I. (2021). The role of energy types and environmental quality on human health in developing Asian countries. *Energy & Environment*, 32(7), 1226-1242.
- Alharthi, M., Hanif, I., & Alamoudi, H. (2022). Impact of environmental pollution on human health and financial status of households in MENA countries: Future of using renewable energy to eliminate the environmental pollution. *Renewable Energy*, 190, 338-346.

- Amin, A., Liu, X. H., Abbas, Q., Hanif, I., & Vo, X. V. (2021). Globalization, sustainable development, and variation in cost of power plant technologies: A perspective of developing economies. *Environmental Science and Pollution Research*, 28(9), 11158-11169. Hanif, I. (2017). Economics-energy-environment nexus in Latin America and the Caribbean. *Energy*, 141, 170-178.
- Antonakakis, N., Cunado, J., Filis, G., & De Gracia, F. P. (2017). Oil dependence, quality of political institutions and economic growth: A panel VAR approach. *Resources Policy*, 53, 147-163.
- Arvanitis, Y., & Weigert, M. (2017). Turning resource curse into development dividends in Guinea-Bissau. *Resources Policy*, 53, 226-237.
- Asada, A., Basheerb, M. F., Irfanc, M., Jiangd, J., & Tahir, R. (2020). Open-Innovation and knowledge management in Small and Medium-Sized Enterprises (SMEs): The role of external knowledge and internal innovation. *Revista Argentina de Clínica Psicológica*, 29(4), 80-90.
- Atkinson, G., & Hamilton, K. (2003). Savings, growth and the resource curse hypothesis. *World development*, 31(11), 1793-1807.
- Auty, R. (2002). *Sustaining development in mineral economies: the resource curse thesis*. Routledge.
- Auty, R. M. (2017). Natural resources and small island economies: Mauritius and Trinidad and Tobago. *The Journal of Development Studies*, 53(2), 264-277.
- Ayelazuno, J. (2014). Oil wealth and the well-being of the subaltern classes in Sub-Saharan Africa: A critical analysis of the resource curse in Ghana. *Resources Policy*, 40, 66-73.
- Badeeb, R. A., Lean, H. H., & Clark, J. (2017). The evolution of the natural resource curse thesis: A critical literature survey. *Resources Policy*, 51, 123-134.
- Bakwena, M., Bodman, P., Le, T., & Tang, K. K. (2009). *Avoiding the resource curse: The role of institutions* (Vol. 3209). Macroeconomics Research Group.
- Basheer, M. F., Saleem, M., Hameed, W. U., & Hassan, M. M. (2021). Employee voice determinants and organizational innovation: Does the role of senior manager matter. *Psychology and Education Journal*, 58(3), 1624-1638.
- Batool, Z., Raza, S. M. F., Ali, S., & Abidin, S. Z. U. (2022). ICT, renewable energy, financial development, and CO2 emissions in developing countries of East and South Asia. *Environmental Science and Pollution Research*, 29(23), 35025-35035.
- Bennett, D. L., Faria, H. J., Gwartney, J. D., & Morales, D. R. (2017). Economic institutions and comparative economic development: A post-colonial perspective. *World Development*, 96, 503-519.
- Boschini, A. D., Pettersson, J., & Roine, J. (2007). Resource curse or not: A question of appropriability. *Scandinavian Journal of Economics*, 109(3), 593-617.
- Boyce, J. R., & Emery, J. H. (2011). Is a negative correlation between resource abundance and growth sufficient evidence that there is a "resource curse"? *Resources Policy*, 36(1), 1-13.
- Brunnschweiler, C. N., & Bulte, E. H. (2008). The resource curse revisited and revised: A tale of paradoxes and red herrings. *Journal of environmental economics and management*, 55(3), 248-264.
- Bulte, E. H., Damania, R., & Deacon, R. T. (2005). Resource intensity, institutions, and development. *World development*, 33(7), 1029-1044.
- Carothers, T. (2003). Promoting the rule of law abroad: the problem of knowledge.
- Chunyu, L., Zain-ul-Abidin, S., Majeed, W., Raza, S. M. F., & Ahmad, I. (2021). The non-linear relationship between carbon dioxide emissions, financial development and energy consumption in developing European and Central Asian economies. *Environmental Science and Pollution Research*, 28(44), 63330-63345.

- Collier, P., & Hoeffler, A. (1998). On economic causes of civil war. *Oxford economic papers*, 50(4), 563-573.
- Deacon, R. T. (1994). Deforestation and the rule of law in a cross-section of countries. *Land economics*, 414-430.
- Frankel, J. A. (2010). *The natural resource curse: a survey* (No. w15836). National Bureau of Economic Research.
- Gueye, C. A., & Lee, M. (2015). Natural resource wealth: making resource windfalls work for Sub-Saharan African countries. *International Growth Centre Blog*.
- Gylfason, T. (2006). Natural resources and economic growth: From dependence to diversification. *Economic liberalization and integration policy*, 201-231.
- Haggard, S., & Tiede, L. (2011). The rule of law and economic growth: where are we?. *World development*, 39(5), 673-685.
- Hanif, I. (2018). Impact of fossil fuels energy consumption, energy policies, and urban sprawl on carbon emissions in East Asia and the Pacific: A panel investigation. *Energy strategy reviews*, 21, 16-24.
- Hanif, I. (2018a). Impact of economic growth, nonrenewable and renewable energy consumption, and urbanization on carbon emissions in Sub-Saharan Africa. *Environmental Science and Pollution Research*, 25(15), 15057-15067.
- Hanif, I. (2018b). Energy consumption habits and human health nexus in Sub-Saharan Africa. *Environmental Science and Pollution Research*, 25(22), 21701-21712.
- Hanif, I., & Gago-de Santos, P. (2017). Impact of fiscal decentralization on private savings in a developing country: Some empirical evidence for the case of Pakistan. *Journal of South Asian Development*, 12(3), 259-285.
- Hanif, I., & Gago-de-Santos, P. (2017). The importance of population control and macroeconomic stability to reducing environmental degradation: an empirical test of the environmental Kuznets curve for developing countries. *Environmental Development*, 23, 1-9.
- Hanif, I., Aziz, B., & Chaudhry, I. S. (2019). Carbon emissions across the spectrum of renewable and nonrenewable energy use in developing economies of Asia. *Renewable Energy*, 143, 586-595.
- Hanif, I., Wallace, S., & Gago-de-Santos, P. (2020). Economic growth by means of fiscal decentralization: an empirical study for federal developing countries. *SAGE Open*, 10(4), 2158244020968088.
- Hansen, B. E. (1999). Threshold effects in non-dynamic panels: Estimation, testing, and inference. *Journal of econometrics*, 93(2), 345-368.
- Hansen, B. E. (2000). Sample splitting and threshold estimation. *Econometrica*, 68(3), 575-603.
- Holden, S. (2013). Avoiding the resource curse the case Norway. *Energy Policy*, 63, 870-876.
- Huang, Y., Raza, S. M. F., Hanif, I., Alharthi, M., Abbas, Q., & Zain-ul-Abidin, S. (2020). The role of forest resources, mineral resources, and oil extraction in economic progress of developing Asian economies. *Resources Policy*, 69, 101878.
- Isham, J., Woolcock, M., Pritchett, L., & Busby, G. (2005). The varieties of resource experience: natural resource export structures and the political economy of economic growth. *The World Bank Economic Review*, 19(2), 141-174.
- James, A. (2015). The resource curse: A statistical mirage?. *Journal of Development Economics*, 114, 55-63.
- Jiang, Y., Batool, Z., Raza, S. M. F., Haseeb, M., Ali, S., & Zain Ul Abidin, S. (2022). Analyzing the Asymmetric Effect of Renewable Energy Consumption on Environment in STIRPAT-Kaya-EKC Framework: A NARDL Approach for China. *International Journal of Environmental Research and Public Health*, 19(12), 710

- Karabegović, A. (2009). *Institutions, Economic Growth, and the "curse" of Natural Resources*. Fraser Institute.
- Larsen, E. R. (2005). Are rich countries immune to the resource curse? Evidence from Norway's management of its oil riches. *Resources Policy*, 30(2), 75-86.
- Li, Y., Alharthi, M., Ahmad, I., Hanif, I., & Hassan, M. U. (2022). Nexus between renewable energy, natural resources and carbon emissions under the shadow of transboundary trade relationship from South East Asian economies. *Energy Strategy Reviews*, 41, 100855.
- Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. *The economic journal*, 116(508), 1-20.
- Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the resource curse. *The economic journal*, 116(508), 1-20.
- Mehrara, M. (2009). Reconsidering the resource curse in oil-exporting countries. *Energy Policy*, 37(3), 1165-1169.
- Ouoba, Y. (2016). Natural resources: Funds and economic performance of resource-rich countries. *Resources Policy*, 50, 108-116.
- Ozpolat, A., Guven, G. G., Ozsoy, F. N., & Bahar, A. (2016). Does rule of law affect economic growth positively. *Research in World Economy*, 7(1), 107.
- Papyrakis, E. (2017). The resource curse-what have we learned from two decades of intensive research: Introduction to the special issue. *The Journal of Development Studies*, 53(2), 175-185.
- Papyrakis, E., & Gerlagh, R. (2003). Natural resources: a blessing or a curse?. Available at SSRN 383482.
- Raoof, R., Basheer, M. F., Shabbir, J., Ghulam Hassan, S., & Jabeen, S. (2021). Enterprise resource planning, entrepreneurial orientation, and the performance of SMEs in a South Asian economy: The mediating role of organizational excellence. *Cogent Business & Management*, 8(1), 1973236.
- Raza, S. M. F., Ali, I., Malik, M. Y., Ahmad, M., Abidin, S. Z. U., & Masood, S. (2022). RENEWABLE ENERGY CONSUMPTION TOWARDS ENVIRONMENTAL SUSTAINABILITY: EVIDENCE OF EKC HYPOTHESIS IN THE FRAMEWORK OF ECONOMIC GROWTH AND CO2 EMISSIONS. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 19(2), 1238-1253
- Robinson, J. A., Torvik, R., & Verdier, T. (2006). Political foundations of the resource curse. *Journal of development Economics*, 79(2), 447-468.
- Roy, B. C., Sarkar, S., & Mandal, N. R. (2013). Natural resource abundance and economic Performance—A literature review. *Current Urban Studies*, 1(04), 148.
- Saha, S., & Ali, M. S. B. (2017). Corruption and economic development: New evidence from the Middle Eastern and North African countries. *Economic Analysis and Policy*, 54, 83-95.
- Sarmidi, T., Hook Law, S., & Jafari, Y. (2014). Resource curse: new evidence on the role of institutions. *International Economic Journal*, 28(1), 191-206.
- Seghir, M., & Damette, O. (2013). Natural resource curse: a non linear approach in a panel of oil exporting countries.
- Sibt e Ali, M., Raza, S. M. F., & Abidin, S. Z. (2018). Population, poverty and economic development nexus: Empirical study of some selected developing countries.
- Stijns, J. P. C. (2005). Natural resource abundance and economic growth revisited. *Resources policy*, 30(2), 107-130.
- T. Nuseir, M., Basheer, M. F., & Aljumah, A. (2020). Antecedents of entrepreneurial intentions in smart city of Neom Saudi Arabia: Does the entrepreneurial education on artificial intelligence matter?. *Cogent Business & Management*, 7(1), 1825041.

- Toto Same, A. (2009). Transforming natural resource wealth into sustained growth and poverty reduction: a conceptual framework for Sub-Saharan African oil exporting countries. *World Bank Policy Research Working Paper*, (4852).
- Wang, J., Hassan, M. S., Alharthi, M., Arshed, N., Hanif, I., & Saeed, M. I. (2022). Inspecting non-linear behavior of aggregated and disaggregated renewable and non-renewable energy consumption on GDP per capita in Pakistan. *Energy Strategy Reviews*, 39, 100772.
- Yan, R., Basheer, M. F., Irfan, M., & Rana, T. N. (2020). Role of psychological factors in employee well-being and employee performance: an empirical evidence from Pakistan. *Revista Argentina de Clínica Psicológica*, 29(5), 638.