

FACTORS OF INTERNATIONAL TRADE AND ENVIRONMENTAL DEGRADATION IN THE UAE: MODERATING ROLE OF FOREIGN INVESTOR CHARACTERISTICS

Saood Mohammad Hassan Albahar^{*}, Rabiul Islam^{**}

^{*} Corresponding author, School of International Studies, University Utara Malaysia, Kedah, Malaysia
Contact details: School of International Studies, University Utara Malaysia, 06010 Bukit Kayu Hitam, Kedah, Malaysia
^{**} School of International Studies, University Utara Malaysia, Kedah, Malaysia



Abstract

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The purpose of the study is to identify the moderating role of economic factors of foreign investor over the relationship between economic factors and environmental degradation in Dubai which is among the fastest-growing economies and is attracting foreign direct investments (FDI) at the best. In order to meet the objectives of the study two hypotheses were developed. The first hypothesis deals with the direct effect of economic dimensions of foreign direct investment (Alkathiri, 2022), whereas, the second hypothesis deals with the moderating impact of foreign investor characteristics over the relationship between economic dimensions of foreign direct investment and environmental degradation. Both hypotheses have been checked over the primary data collected from the executives of multinational companies operating in Dubai. The findings of the study revealed that economic dimensions of foreign direct investment have a significant impact on environmental degradation. Likewise, foreign investor characteristics hold a significant moderating role in the significant relationship between economic factors of foreign direct investment and environmental degradation (Khan & Agha, 2015). The study showed some limitations and opened the horizons for future research.

Keywords: Foreign Direct Investment, Government Facilitation, Foreign Investor Characteristics, Environmental Degradation

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1. INTRODUCTION

For developing economies and those in transition, foreign direct investment (FDI) is critical. FDI, on the other hand, is one of the foreign financing sources that supports innovation and reduces unemployment (Asad et al., 2018b), hence stimulating economic development and progress

(Asad, 2010). FDI has also enhanced the private sector, the privatization process, licenses, and agreements, and it stimulates the speed of industrial technological upgrading (Simelyte et al., 2017). Following the best practices of highly developed countries, attracting targeted FDI, and emphasizing the incentives that comprise the FDI policy, the intensification strategy of FDI may be successfully implemented (Bende-Nabende, 2003).

However, it has been seen that governments in several nations aim to attract FDI at any cost without considering the host country's features (Bokpin, 2017). Numerous studies on the efficiency of FDI in developing nations have been conducted (Shahbaz et al., 2018). Furthermore, FDI is critical for the development of a country since it expands knowledge-based assets (Asif et al., 2021b) and accelerates the process of industrialisation in emerging countries (Kaur et al., 2016; Anetor et al., 2020). Scholars feel that FDI should not be overlooked when considering investments in a certain nation. FDI boosts the productivity of practically every production element in every industry (Sheikh et al., 2020).

Scholars like Cheng et al. (2018) and Sheikh et al. (2020) predicted that FDI will have a significant positive influence on economic performance soon. The impact of capital expenditures on the connection between FDI and economic growth demonstrates the difficulty of comparing the FDI effect in developing and established nations. It also makes the case that FDI has a far greater beneficial influence in the early phases of development than it does as the country progresses.

Even though the UAE had greatly benefitted from FDI influence, there is as well ongoing criticism of FDI on the environment and society (Omri & Hadj, 2020) and the welfare of the workers employed by the enterprises (Asad et al., 2022b). According to the evidence, the ongoing debate over the impact of FDI on economic growth is also a pressing problem in the UAE. On this basis, the goal of this research is to look at the link between FDI and economic development. Many governments have adopted macro- and microeconomic strategies to enhance the investment climate and attract foreign direct investment (Birnleitner, 2020).

The United Arab Emirates is not left out of the FDI competition. All developing economies try to get involved in innovation to gain better performance (Asad et al., 2022a). It's worth mentioning that there's been a change away from the traditional concept of relative advantage, which was based on a state's resources that allowed for competitive production, such as abundant natural resources, labor, and a suitable geographic location. In addition to the traits listed above, aspects like technological know-how, expertise, and high-quality production are included (Salamon et al., 2011).

With these strategies put in place, the UAE achieved a remarkable milestone in developing its economy (Alkhuzaie & Asad, 2018). Despite the significant progress, scholars across the globe and in the UAE realize the long-term influence of FDI on the economy and environment. The study by Khan and Agha (2015) argued that there is a negative effect of FDI on the environment over the long haul due to an advance in population growth.

Some of the identified factors that contribute to long-term adverse effects of FDI by earlier scholars are not limited to the impact of regularity dimension but stressed economic dimensions (growth and income, labor, infrastructure and access to finance) and foreign investor characteristics are predominant factors that influence the inflow of FDI (Sheikh et al., 2020; Contractor et al., 2020).

There is evidence that the economic dimension not limited to easy access to finance for foreign investors in terms of loan and equity acquisition had a substantial long-term adverse effect on the environment (Zeqiraj et al., 2020). Also, financial institutions' regulations and rules were the subject of debates among economic pundits and practitioners. Scholars not limited to Contractor et al. (2020) opined that these rules and regulations provide an advantage edge for foreign investors in economic and environmental development. Whereas, Zeqiraj et al. (2020) argued these advantages had been exploited thus, had some negative influence on the environment.

An important thing is that literary evidence highlights investors' characteristics-country of origin as a crucial factor that generates inconclusive evidence on the relationship between two or more countries and also dissolves international regulations among foreign investors (Fortanier, 2007). According to Fortanier (2007), foreign investors' characteristics such as the investor's country of origin and host country characteristics influenced the FDI effect on the economy and environmental growth. Considering these claims, the researcher finds it urgent to reinvestigate the causal relationship between the highlighted economic dimension and investors' characteristics measured with the country of origin and capital repatriation on environmental degradation (that is, the negative effect of FDI inflow).

Along with prior researchers, recently Teng et al. (2021) suggested future scholars explore the intervening connection between foreign investors' characteristics and economic factors of FDI to ascertain its real effects on the ambiguous and complex effects of FDI on environmental degradation in a long run. Thus, this research aims to identify the moderating role, if any, of foreign investors' characteristics (country of origin and capital repatriation) over the relationship between the economic factors of FDI and environmental degradation.

This research is significant because it will clarify the link between economic issues, and foreign direct investment characteristics and their impact on environmental degradation in the United Arab Emirates. The study will generate new perspectives on FDI practices in the UAE and will update current company management data. The findings of this study will assist scholars in a variety of fields to investigate issues linked to FDI as well as the societal implications. The paper may be used by policymakers and practitioners to refresh existing policies, processes, and strategies as a result to increase FDI participation in UAE.

The rest of the paper is as follows: initially, Section 2 reviews the literature regarding the variables with reference to the global context as well as the context of the UAE. Afterwards, Section 3 explains the methodology that has been adopted along with the reason for following the methodology. Later on, the analysis has been done in Section 4 followed by the discussions in Section 5. Finally, the conclusions are presented in Section 6, which contains the significance, practical implications and recommendations for future researchers.

2. LITERATURE REVIEW AND THEORETICAL SUPPORT

Literature review evaluated the relevant past studies. In 1971, the UAE declared independence and established official economic, social, and political institutions (Tipu & Sarker, 2020). The UAE has enjoyed political and social stability due to substantial oil revenues in the form of social and economic infrastructure, high standards of social services, and so on (health, education) (De Jong et al., 2019). The UAE's manufacturing industry has experienced significant progress, particularly in terms of the number of businesses established, and industrial operations have low labor and energy costs, advantageous tax legislation, and political stability have all helped (De Jong et al., 2019).

Construction and building, real estate, and wholesale and retail commerce are all examples of financial services that are the most popular FDI industries (Benfratello & Baidoo, 2020). The UAE is a major investor in other countries, particularly through the Abu Dhabi Investment Authority, which is based in the emirate of Abu Dhabi (ADIA), one of the world's most oversized financial investment vehicles run by the government (Young, 1998). The World Bank (2004) defines FDI as a foreign investment that shows a long-term interest in or reasonable (active) management control over a firm. On a national and international level, the topic of foreign direct investments is attracting more attention these days. Findlay (1978) stresses the importance of technology transfer when it comes to creating technical spillovers, thinking that FDI leads to a spillover of advanced technologies to local firms, which contributes more to economic growth than national investments. Positive advantages are modest, whereas the bulk of the impact would be unfavorable. According to Lipsey (2002), there are certain advantages, but there is no consistent relationship between FDI stock and economic growth.

The type of investment industry might also influence the economy's potential good or negative outcomes. Hirschman and Sirkin (1958) claims that agriculture and mining have a limited positive impact. Market failures attract FDI and provide multinational corporations with a competitive advantage when they join new international markets. Foreign investors feel that their superior knowledge and technology will allow them to acquire a competitive advantage. Despite the efforts of numerous experts to explain the phenomenon of FDI, no commonly accepted explanation exists. However, everyone agrees on one thing: foreign direct investment would cease to exist in a society defined by perfect competition.

Anetor et al. (2020) contend that macroeconomic FDI models focus more on country-specific concerns and are more tied to trade and international economics. Microeconomic FDI theories, on the other hand, are firm-specific and are concerned with ownership and internalization benefits, with a focus on industrial economics and market inefficiencies (Asif et al., 2021a).

The macroeconomic approach views FDI as a specific sort of cross-national capital mobility from home countries to host countries that can be measured using balance-of-payments data (Sheikh et al., 2020). These flows create a new sort of capital

stock in host countries: the value of the home country's investment in organizations, mainly enterprises, that are controlled by a home-country owner or in which a home-country owner controls a certain percentage of voting rights.

The variables of interest are the movement of financial capital, the value of the stock of capital that investing firms accumulate, and the flows of revenue from investments (Sheikh et al., 2020). Market size, economic growth rate, gross domestic product (GDP), infrastructure, natural resources, and institutional variables like political stability are all macro-level determining factors that influence a host country's capacity to attract FDI. One of the first ideas to attempt to explain FDI was the "currency area theory", which is sometimes referred to as the "currency area hypothesis". Foreign investment, it was believed, arose as a result of capital market inefficiencies in general. According to Bende-Nabende (2003), weaker currencies have a greater potential to attract FDI and are better equipped to exploit gaps in market capitalization rates than stronger currencies.

2.1. Environmental degradation

Over the years there has been a growing concern that the influx of FDI had contributed to environmental degradation; hence, scholars not limited to Adamu et al. (2019) invested significant interest in examining the said relationship. Despite significant efforts, the relationship between FDI inflow and environmental degradation keeps yielding mixed evidence. For example, supporting the stance that argues a significant relationship between FDI and environmental degradation, the study of Adamu et al. (2019) conducted in the Indian context found that FDI and income contribute to environmental degradation in the long run, however, contribute to economic gain in the short run. Also, an earlier investigation by Shahbaz et al. (2018) in the French context found that FDI causes environmental degradation, therefore, suggesting research into financial and energy sector to lower carbon emission. Although the study of Nadeem et al. (2020) did not take a stand on the relationship between FDI inflow and environmental degradation, nevertheless, the authors employ the Pakistani government to stern the environmental policies while attracting foreign investors (Solarin & Al-Mulali, 2018).

2.2. Economic dimension

This research proposes economic dimensions such as growth and income, government facilitation, labor, infrastructure, finance, as well as investor profiles and foreign direct investment in UAE constructions.

Growth and income inequalities of these countries have a detrimental influence on growth, and we found a positive association between the two (Brida et al., 2020). At this level, it's vital to emphasize that the notion that long-term growth has a beneficial impact has been pushed (Teng et al., 2021). However, there are two types of arguments: one is based on market imperfections, while the other is based on the idea of local externality (Dowding & Taylor, 2020). This flaw is mirrored in credit rationing, which is based on the assumption

that only those with a lot of money can get a loan, which has a detrimental impact on economic growth since it reduces the chances of getting credit (Petach & Tavani, 2019). As a result, the imperfection of the credit market has an impact on income distribution, which is different from what would be achieved if credit was granted without discrimination.

The distribution of productive capital appears to be a function of beginning wealth, which influences not just future income and wealth distribution, but also the pace of economic development (Moll et al., 2019). In the existence of an imperfect credit market, it is surely committed to the wealthiest of the population to create a link between the choice of profession and the development process (Klarin & Ray, 2019). So, they are the wealthiest actors, able to deploy capital and profit from the finest market opportunities, and it will only be in the latter stages of economic growth that few individuals will be bound by their wealth (Altenburg & Rodrik, 2017). The function of the composition of local demand is the influence of income distribution on the process of industrialization; hence, a policy of redistribution by moving income from affluent to poor supports industrialization and growth by growing the size of domestic markets.

Government facilitation was ranked among government facilitator roles in functions; in other words, giving government facilitation by government functions would result in a higher rise in government functions than other facilitation roles (Bende-Nabende, 2003). All of these factors must be considered, as well as enhanced valuable knowledge and experience of law enforcement and government agencies dealing with raising the amount of influence in pressuring the government to abandon damaging initiatives (Bhujabal et al., 2021). As a result, for a financial facilitator, it would be necessary to solve financial problems by allocating various projects, supplying basic requirements, and paying attention to the presence of governmental executive systems to help those persons who have adequate financial power and are effective in policy and rule changes in the country. For a legislation facilitator, legal and logical help from governmental bodies from the international community would be advantageous (Lu et al., 2014). Using representatives as advisers, ministers and officials attending the council's decision, participating in setting environmental policies in the development plan, and holding discussion sessions with parliamentarism were among the government facilitator roles in ecopreneurship functions (Asad et al., 2018b).

Despite the fact that effective labor has a favorable impact on economic growth, it contributes less to growth than physical capital. The main difference between emerging and developed nations is the plenty of labor and scarcity of capital; this combination leads to insufficient investment and capital accumulation, as well as larger labor supply pressures than in developed countries, resulting in a labor shortage (Petras, 1988). Nonetheless, an oversupply of labor in the face of insufficient growth to absorb that labor into productive employment leads to the widespread underutilization of labor (Lane, 1988).

In fact, the poorer the country, the faster the rate of population increase. Developing economies are least likely to absorb a booming youthful labor force into productive occupations (Campbell, 2013). The result is that the employment difficulty in emerging nations is primarily a youth employment concern, implying that the younger the population structure, the faster the population growth rate. As a result, although many rich countries are concerned about an aging population, most of the developing world struggle in supplying jobs for a young workforce (Simelyte et al., 2017).

The relationship between infrastructure and the impact it has on a country's economy is not a simple one; however, the definition used will yield different results. The effect may be direct, in which infrastructure acts as an additional output in production, creating fiscal multipliers, or indirect, in which infrastructure affects growth indirectly by raising total factor productivity while lowering firm costs, which takes longer (Asad et al., 2018a). Infrastructure in endogenous growth, where it was demonstrated that public capital, particularly when it came to productive infrastructure, could produce growth (Sharma & Tenyane, 2019).

Infrastructure measures for the production function and growth regressions, on the other hand, have an influence on growth and productivity (Philip et al., 2021). Most economists agree that infrastructure investment is necessary for a country to industrialize; however, infrastructure has a disproportionate impact on the poor's incomes and welfare by lowering market entry costs, increasing returns on existing assets, facilitating human capital accumulation, and facilitating agglomeration economies and knowledge dissemination (Henckel & McKibbin, 2017).

Finance activity, which is a measure of all financial intermediary and market activity, is a better indicator of the effects of financial development than financial structure (Bilir et al., 2019). Recent research has found that private credit has a strong, positive, and stable impact on economic growth (Asad et al., 2016). By evaluating the activity of stock market trading volume as a percentage of national production, the value traded shows the degree of liquidity given by stock markets to economic players (Peress & Schmidt, 2022). Furthermore, because there is no universally accepted definition of financial structure, we utilize a number of metrics to test the validity of our findings (Awili & Ahmed, 2019).

2.3. Foreign investor characteristics

Foreign direct investment is a sort of international investment in which a corporation situated in one country (the direct investor) buys a 10% interest in another country's company (the direct investment firm) (Benfratello & Baidoo, 2020). FDI differs from foreign portfolio investment in that the funds are used in the receiving country. FDI indicates that foreign investors either invest in an existing company or build a new company (factory, branch) in the host nation (Shahbaz et al., 2018). As a physical investment, FDI is intended to affect the current account, gross capital creation, employment, productivity, economic growth, and development (Omri & Hadj, 2020).

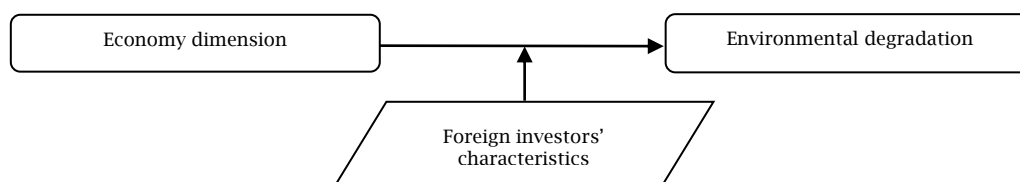
The quantity of FDI assets deployed benefits developing countries; yet, the majority of the assets provided to developing countries by foreign investors are intangible and uncommon (Wong et al., 2019). The most important causes driving FDI inflows into emerging countries in recent years have been foreign purchases of local firms in the process of privatization, globalization of production, and improved economic and financial integration (Alkathiri, 2022). Diverse types of FDI into developing countries are predicted to have different motivations, such as market-oriented (Khan et al., 2021), cost-oriented (Damer et al., 2021), and resource-seeking FDI (Kaur et al., 2016). As a result, the most important kind of FDI directed into developing countries may be referred to as the determinant of FDI, and competition for FDI into developing countries would be based on cost differences between locations, infrastructure quality, and other business-related criteria (Omri & Hadj, 2020). Companies seek information about the countries in which they wish to invest (Anetor et al., 2020). As developing nations struggle to stabilize and improve their economies while also

enhancing their democracy and development, it might be difficult for them to give frequent, trustworthy, and long-term information about their domestic markets (Goldar & Banga, 2020).

2.4. Research framework and hypotheses development

The research framework in Figure 1 illustrates the relationships between the exogenous variable, i.e., economy dimension of FDI, foreign investors' characteristics (country of origin and capital repatriation), and environment degradation. As evidence from the available pieces of literature, the foreign direct investment lays out abiding interest and active reasonable control over an enterprise in the host country (Asad et al., 2018). Hence, the importance of foreign investors had been highlighted as economic booster as well as environment degrader (Waqih et al., 2019; Dhrihi et al., 2020). Considering this, the research framework for this study is presented in Figure 1.

Figure 1. Research framework



Source: Albahar and Islam (2022).

The observed link between the researched exogenous factors and the endogenous variable is shown in this section. These connections are utilized to build the hypotheses. Meanwhile, foreign investors' characteristics have a moderating influence on the connection between domestic and international investors.

Scholarly evidences have shown that economic dimensions of FDI have a significant relationship with environmental degradation. Examples of such studies are not limited to the studies of Dahlquist and Robertsson (2001), positing a significant relationship between economic dimension of FDI and environmental degradation. Furthermore, Feng et al. (2019) have a similar view with the findings by Dahlquist and Robertsson (2001) arguing the significant role of Federal Deposit Insurance Corporation (FDIC) in ensuring the economic compliance of foreign investors. Also, recent investigation by Bhujabal et al., (2021) emphasized the significant relationship between economic dimension of FDI and environmental degradation. Hence, signifying a strong relationship between the two constructs. Considering these pieces of arguments, the following hypothesis is proposed.

H1: There is a significant relationship between economic dimension of FDI and environmental degradation.

Moreover, the researcher introduces investors' characteristics (country of origin and expansion strategy) as a moderating variable that influence the connection between regulatory dimension of FDI

and environmental degradation based on the following rationale and conditions:

1. Literary evidence from earlier studies reveal the potential influence on investors' characteristics on the relationship between regulatory dimension of FDI and environmental degradation. Sequentially, the rationale for introducing a moderating variable according to Bhattacharjee (2012) lies on the rational or logical thought of such variable having the tendency of influencing the observed relationship. Considering this, foreign investors' characteristics in this study is treated as a moderator.

2. Not only this, according to Nosek (2005) and Chmura et al. (2008), a moderator could be introduced into a research model if and only if there are mixed evidence from earlier investigations. Insights into studies reviewed above fulfilled this condition of introducing a moderating variable.

3. According to Edwards and Lambert (2007), a moderator could be introduced into a business research model if the relationship between the first two variables solely depends on the level of the third variable.

On the recommendations of Baron and Kenny (1986) considering the inconsistencies in the literature over economic dimensions and environmental degradation the researchers introduced a moderator into research model, i.e., foreign investors' characteristics which holds a moderating impact on the relationship between regulatory dimension of FDI and environmental degradation. The researcher introduces foreign

investors' characteristics as a potential moderator, moderating the relationship between economic dimension of FDI and environmental degradation. Further evidence from the studies of Mian et al. (2021) posited that foreign investors' characteristics influences the attitude of foreign investors in their host countries of operations.

H2: There is a significant moderating effect of foreign investors' characteristics (country of origin and investor expansion strategy) on the relationship between economic dimension of FDI and environmental degradation.

3. RESEARCH METHODOLOGY

In the context of the UAE, this study uses a quantitative research technique to examine the structural link between the economic dimensions of FDI, foreign investors' characteristics (country of origin and capital repatriation), and environmental degradation. Foreign investor characteristics (country of origin and capital repatriation) have a moderating influence on the link between regulatory, economic, and environmental dimensions of FDI. The rationale for using a quantitative research technique is that this study isn't concerned with theory building; instead, it relies on well-established theory. Furthermore, to answer the research questions, this study employs numerical data and particular data analysis. For testing, the model regression can also be used but considering the limitations of fulfilling all the requirements of regression partial least square has been adopted. To respond to the research instrument a group of participants is selected from a smaller population, allowing suitable inferences about the population to be drawn from the results. The population of about 2615 senior executives was surveyed and a sample size of 335 is appropriate based on Morgan sample table (Krejcie & Morgan, 1970). The instrument was measured using a 5-point Likert scale. The items used in measuring environmental degradation were adapted from Eweje (2006). Similarly, the items for the regulatory dimension of FDI covered tax, macroeconomic policies, and government regulatory actions were adopted from prior studies (Lu et al., 2014). Likewise, considering the literature, the items used in measuring economic dimension were adapted from the studies of Benfratello and Baidoo (2020). Finally, the items for measuring foreign investor characteristics were adapted from the prior study conducted by Isobe et al. (2000). The framework and hypotheses have been tested using structural equation modeling after conducting the tests for the reliability and validity of the instruments.

Table 4. Discriminant validity

	<i>Economic dimension</i>	<i>Environmental degradation</i>	<i>Foreign investor characteristics</i>
<i>Economic dimension</i>	0.889		
<i>Environmental degradation</i>	0.519	0.809	
<i>Foreign investor characteristics</i>	0.632	0.586	0.875

After ensuring the external model, the internal model has been analyzed using structural equation modeling to test the hypotheses of the study. In this

4. RESULTS

The data has been initially analyzed for measuring the descriptive statistics of the variables of the study. It is important to conduct the descriptive analysis because it reveals the current situations of the studied variables, that either they are over the lower side or towards the higher side which ensures the importance of the factors under discussion in the eyes of the respondents.

Table 1. Descriptive statistics of main variables

<i>Variable</i>	<i>Mean</i>	<i>St. dev.</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Environmental degradation</i>	3.99	0.91	1	5
<i>Economic dimension</i>	3.62	0.97	1	5
<i>Foreign investor characteristics</i>	3.42	0.96	1	5

In order to be more confident about the findings of the study, it is more important to confirm that the data is free of any issue of multicollinearity and there is no issue of variable inflation factor. Afterwards, multicollinearity has been analyzed using tolerance and variance inflation factor (VIF) with a threshold level of 0.20 and 5 respectively (Hair et al., 2010).

Table 2. Multicollinearity analysis

<i>Variables</i>	<i>VIF</i>	<i>Tolerance</i>
<i>Environmental degradation</i>	2.448	0.867
<i>Economic dimension</i>	2.367	0.815
<i>Foreign investor characteristics</i>	1.899	0.928

After analyzing that the data is free of multicollinearity, the reliability and validity of the instrument have been analyzed. The findings of Cronbach's Alpha, average variance extracted (AVE), and composite reliability are presented in Table 3.

Table 3. Reliability and validity

<i>Variables</i>	<i>Cronbach's Alpha</i>	<i>AVE</i>	<i>Composite reliability</i>
<i>Environmental degradation</i>	0.894	0.654	0.919
<i>Economic dimension</i>	0.956	0.791	0.964
<i>Foreign investor characteristics</i>	0.938	0.765	0.951

Afterwards, the discriminant validity has been analyzed using Fornell-Larcker criterion (Fornell & Larcker, 1981; Sarstedt et al., 2014). The findings of the discriminant validity are presented in Table 4.

analysis, direct and moderating hypotheses have been tested, for which the findings are presented in Table 5.

Table 5. Hypotheses testing

Variables	O	M	St. dev.	T-statistics (O/ St. dev.)	P-values
Economic dimension \rightarrow Environmental degradation	0.343	0.142	0.087	2.643	0.002
Economic dimension * Foreign investor characteristics \rightarrow Environmental degradation	0.329	0.313	0.143	2.299	0.001

Note: O — original sample, M — sample mean.

H1 reveals that there is a significant relationship between economic dimension and environmental degradation ($\beta = 0.343$, $t = 2.643$, $p = 0.002$) which is supported. Likewise, H2 implies that there is a significant moderating effect of foreign investors' characteristics on the relationship between economic dimension of FDI and environmental degradation ($\beta = 0.329$, $t = 2.299$, $p = 0.001$). Similarly, for further strengthening the results predictive relevance of the model has also been analyzed using Q^2 (Chin, 1998; Henseler et al., 2009). The findings revealed that the model has moderate predictive relevance.

Table 6. Cross-validated redundancy

Variable	SSO	SSE	Q^2 (= $1 - SSE / SSO$)
Environmental degradation	2316.000	1679.202	0.275

Note: SSO — sum of the squared observations; SSE — sum of the squared prediction error; Q^2 — predictive relevance.

5. DISCUSSION

The findings of the study are interesting and very significant for the policymakers as well as the practitioners. The findings of the H1 confirm the significant relationship between economic dimension and environmental degradation ($\beta = 0.343$, $t = 2.643$, $p = 0.002$) which is supported by the previous researchers; they also claimed the same things that economic dimensions have a significant impact on environmental degradation (Bokpin, 2017; Sheikh et al., 2020), but at the same time contradicted some researchers who claimed that FDI and economic development have a negative influence (Khan & Agha, 2015). Likewise, H2 implies that there is a significant moderating effect of foreign investors' characteristics on the relationship between economic dimension of FDI and environmental degradation ($\beta = 0.329$, $t = 2.299$, $p = 0.001$). The findings are consistent with the prior literature (Fortanier, 2007; Dahlquist & Robertsson, 2001) and add to the body of knowledge, especially for the practitioners and the policymakers who need to develop policies considering the requirements and regulatory issues regarding investors' preferences. Similarly, for further strengthening the results predictive relevance of the model has also been analyzed using Q^2 (Chin, 1998; Henseler et al., 2009). The predictive relevance also confirms that the study findings are highly and strongly applicable in the contextual setting not only to the UAE but also to any similar economic structure, which can be said for the entire Gulf Council countries.

6. CONCLUSION

In order to analyze the moderating role of foreign investor characteristics between economic

dimensions and environmental degradation, two hypotheses were established. The two hypotheses of the current study have assessed the relationship between the regulatory dimension of FDI on environmental degradation along with moderating role of foreign investor characteristics over the relationship between economic dimensions and environmental degradation. This research contributes to the FDI theory (classification of foreign direct investment theory, explanation of foreign direct investment theory, macroeconomics of foreign direct investment theory) by providing evidence empirically to encourage the arguments of the theory.

The findings further improve researchers' knowledge of the moderation role of foreign investor characteristics on the economic dimension and environmental degradation (Bokpin, 2017; Cheng et al., 2018; Feng et al., 2019; Dhrihi et al., 2020). Furthermore, the government, as well as policymakers, have to understand that their decisions concerning FDI have a direct effect on the environment. Similarly, it is essential to illustrate what the government along with the policymakers could enhance in their laws to protect the environment of the UAE.

The findings are significant for policymakers because they can seek guidance from the study concerning the important economic factors that they need to stress to attract foreign direct investment while considering the issue of environmental degradation. Furthermore, what factors are important in the light of the investors they prefer, and the policies can be developed in line with the same.

Despite several contributions, this study also has certain limitations. The first limitation is that data were collected in the UAE from the employees or managers of senior executives only and other stakeholders have been ignored. Moreover, considering these differences, the present study makes a good effort to determine the connection between international trade (regulatory dimension, economic dimension) and environmental degradation over the foreign investor characteristics implementation under senior executives of employees or managers in the UAE. Hence, future research can also determine the relationship between regulatory dimensions of FDI and environmental degradation (Alkathiri, 2022; Cheng et al., 2018). Furthermore, in the future, the researchers should identify the reasons why the regulators are reluctant in imposing restrictions regarding environmental degradation, especially for economically strong economies like the UAE. Similarly, in the future, the researchers should add to the body of knowledge by adding the home country investors' perspective on environmental issues.

Despite numerous limitations, the present research is focused on the theoretical gap by foreign

investor characteristics as a significant moderating variable for environmental degradation. The theoretical framework has been supporting to the field of foreign direct investment theory (classification of foreign direct investment theory, explanation of foreign direct investment theory,

macroeconomics of foreign direct investment theory) by analyzing the effect of regulatory dimension of FDI, economic dimension of FDI on environmental degradation over foreign investor characteristics.

REFERENCES

1. Adamu, T. M., Haq, I. u., & Shafiq, M. (2019). Analyzing the impact of energy, export variety, and FDI on environmental degradation in the context of environmental Kuznets curve hypothesis: A case study of India. *Energies*, 12(6), Article 1076. <https://doi.org/10.3390/en12061076>
2. Albahar, S. M. H., & Islam, R. (2022). Moderating role of foreign investor characteristics on the relationship between regulatory factors of international trade and environmental degradation in UAE. *South Asian Journal of Social Sciences and Humanities*, 3(5), 116–145. <https://doi.org/10.48165/sajssh.2022.3509>
3. Alkathiri, N. A. (2022). Examining foreign direct investment determinants of tourism industry in Oman and Egypt: The moderating role of investment environment. *International Journal of Finance & Economics*, 27(4), 4722–4740. <https://doi.org/10.1002/ijfe.2396>
4. Alkhuzaiie, A. S., & Asad, M. (2018). Operating cashflow, corporate governance, and sustainable dividend payout. *International Journal of Entrepreneurship*, 22(4), 1–9. <https://www.abacademies.org/articles/Operating-cash-flow-corporate-governance-and-sustainable-dividend-payouts-1939-4675-22-SI-191.pdf>
5. Altenburg, T., & Rodrik, D. (2017). Green industrial policy: Accelerating structural change towards wealthy green economies. In T. Altenburg & C. Assmann (Eds.), *Green industrial policy: Concept, policies, country experiences*. UN Environment; German Development Institute/Deutsches Institut für Entwicklungspolitik. https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/altenburg_rodrik_green_industrial_policy_webversion.pdf
6. Anetor, F. O., Esho, E., & Verhoef, G. (2020). The impact of foreign direct investment, foreign aid and trade on poverty reduction: Evidence from Sub-Saharan African countries. *Cogent Economics & Finance*, 8(1), Article 1737347. <https://doi.org/10.1080/23322039.2020.1737347>
7. Asad, M. (2010). Perception of trader towards international trade: A diagnostic study. *Paradigms: A Journal of Commerce, Economics, and Social Sciences*, 4(1), 48–63. <https://paradigms.ucp.edu.pk/wp-content/uploads/2017/09/paradigms040103.pdf>
8. Asad, M., Asif, M. U., Khan, A. A., Allam, Z., & Satar, M. S. (2022a). Synergetic effect of entrepreneurial orientation and big data analytics for competitive advantage and SMEs performance. In *Proceedings of the International Conference on Decision Aid Sciences and Applications (DASA)* (pp. 1192–1196). IEEE. <https://doi.org/10.1109/DASA54658.2022.9765158>
9. Asad, M., Haider, S. H., & Fatima, M. (2018a). Corporate social responsibility, business ethics, and labor laws: A qualitative analysis on SMEs in Sialkot. *Journal of Legal, Ethical and Regulatory Issues*, 21(3), 1–7. <https://www.abacademies.org/articles/Corporate-social-responsibility-business-ethics-and-labor-laws-a-qualitative-study-on-SMEs-in-Sialkot-1544-0044-21-3-209.pdf>
10. Asad, M., Kashif, M., Sheikh, U. A., Asif, M. U., George, S., & Khan, G. u. H. (2022b). Synergetic effect of safety culture and safety climate on safety performance in SMEs: Does transformation leadership have a moderating role? *International Journal of Occupational Safety and Ergonomics*, 28(3), 1858–1864. <https://doi.org/10.1080/10803548.2021.1942657>
11. Asad, M., Shabbir, M. S., Salman, R., Haider, S. H., & Ahmad, I. (2018b). Do entrepreneurial orientation and size of enterprise influence the performance of micro and small enterprises? A study on mediating role of innovation. *Management Science Letters*, 8(10), 1015–1026. <https://doi.org/10.5267/j.msl.2018.7.008>
12. Asad, M., Sharif, M. N., & Alekam, J. M. E. (2016). Moderating role of entrepreneurial networking on the relationship between access to finance and performance of micro and small enterprises. *Paradigms: A Research Journal of Commerce, Economics, and Social Sciences*, 10(1), 1–13.
13. Asif, M. U., Asad, M., Bhutta, N. A., & Khan, S. N. (2021a). Leadership behavior and sustainable leadership among higher education institutions of Pakistan. In *Proceedings of the Sustainable Leadership and Academic Excellence International Conference* (pp. 1–6). IEEE. <https://doi.org/10.1109/SLAE54202.2021.9788081>
14. Asif, M. U., Asad, M., Kashif, M., & Haq, M. A. u. (2021b). Knowledge exploitation and knowledge exploration for sustainable performance of SMEs. In *Proceedings of the Third International Sustainability and Resilience Conference: Climate Change* (pp. 29–34). IEEE. <https://doi.org/10.1109/IEEECONF53624.2021.9668135>
15. Awili, S., & Ahmed, A. D. (2019). Financial openness, trade integration and economic growth: The case of Pacific Melanesian countries. *The Journal of Developing Areas*, 53(4). <https://doi.org/10.1353/jda.2018.0069>
16. Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
17. Bende-Nabende, A. (Ed.). (2003). *International trade, capital flows and economic development in East Asia: The challenge in the 21st century*. Routledge. <https://doi.org/10.4324/9781315251929>
18. Benfratello, L., & Baidoo, J. W. (2020). *Foreign direct investments in Ghana: Determinants and effects on the local economy* [Master's thesis, Polytechnic University of Turin]. <https://webthesis.biblio.polito.it/13908/1/tesi.pdf>
19. Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices*. University of South Florida. https://digitalcommons.usf.edu/cgi/viewcontent.cgi?article=1002&context=oa_textbooks
20. Bhujabal, P., Sethi, N., & Padhan, P. C. (2021). ICT, foreign direct investment and environmental pollution in major Asia Pacific countries. *Environmental Science and Pollution Research*, 28(31), 42649–42669. <https://doi.org/10.1007/s11356-021-13619-w>
21. Bilir, L. K., Chor, D., & Manova, K. (2019). Host-country financial development and multinational activity. *European Economic Review*, 115, 192–220. <https://doi.org/10.1016/j.euroecorev.2019.02.008>

22. Birnleitner, H. (2020). Macroeconomic determinants of FDI decisions in the automotive industry: Theoretical foundations and empirical evidence. *Journal of Business and Management*, 26(2), 69–92. <http://gebrnc.nccu.edu.tw/JBM/pdf/volume/2602/JBM-2602-04-full.pdf>
23. Bokpin, G. A. (2017). Foreign direct investment and environmental sustainability in Africa: The role of institutions and governance. *Research in International Business and Finance*, 39, 239–247. <https://doi.org/10.1016/j.ribaf.2016.07.038>
24. Brida, J. G., Gómez, D. M., & Segarra, V. (2020). On the empirical relationship between tourism and economic growth. *Tourism Management*, 81, Article 104131. <https://doi.org/10.1016/j.tourman.2020.104131>
25. Campbell, D. (2013). The labour market in developing countries. In S. Cazes & S. Verick (Eds.), *Perspectives on labour economics for development* (pp. 7–38). International Labour Organization. https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_190112.pdf
26. Cheng, Z., Li, L., & Liu, J. (2018). The spatial correlation and interaction between environmental regulation and foreign direct investment. *Journal of Regulatory Economics*, 54(2), 124–146. <https://doi.org/10.1007/s11149-018-9366-x>
27. Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). https://www.researchgate.net/publication/311766005_The_Partial_Least_Squares_Approach_to_Structural_Equation_Modeling
28. Chmura Kraemer, H., Kiernan, M., Essex, M., & Kupfer, D. J. (2008). How and why criteria defining moderators and mediators differ between the Baron & Kenny and MacArthur approaches. *Health Psychology*, 27(S2), S101–S108. <https://psycnet.apa.org/record/2008-03488-002>
29. Contractor, F. J., Dangol, R., Nuruzzaman, N., & Raghunath, S. (2020). How do country regulations and business environment impact foreign direct investment (FDI) inflows? *International Business Review*, 29(2). Article 101640. <https://doi.org/10.1016/j.ibusrev.2019.101640>
30. Dahlquist, M., & Robertsson, G. (2001). Direct foreign ownership, institutional investors, and firm characteristics. *Journal of Financial Economics*, 59(3), 413–440. [https://doi.org/10.1016/S0304-405X\(00\)00092-1](https://doi.org/10.1016/S0304-405X(00)00092-1)
31. Damer, N., Al-Znaimat, A. H., Asad, M., & Almansour, A. Z. (2021). Analysis of motivational factors that influence usage of Computer Assisted Audit Techniques (CAATs) auditors in Jordan. *Academy of Strategic Management Journal*, 20(Special Issue 2), 1–13. <https://www.abacademies.org/articles/analysis-of-motivational-factors-that-influence-usage-of-computer-assisted-audit-techniques-caats-by-external-auditors-i.pdf>
32. De Jong, M., Hoppe, T., & Noori, N. (2019). City branding, sustainable urban development and the rentier state. How do Qatar, Abu Dhabi and Dubai present themselves in the age of post oil and global warming? *Energies*, 12(9), Article 1657. <https://doi.org/10.3390/en12091657>
33. Dhrifi, A., Jaziri, R., & Alnahdi, S. (2020). Does foreign direct investment and environmental degradation matter for poverty? Evidence from developing countries. *Structural Change and Economic Dynamics*, 52, 13–21. <https://doi.org/10.1016/j.strueco.2019.09.008>
34. Dowding, K., & Taylor, B. R. (2020). *Economic perspectives on government*. Springer. <https://doi.org/10.1007/978-3-030-19707-0>
35. Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12(1), 1–22. <https://doi.org/10.1037/1082-989X.12.1.1>
36. Eweje, G. (2006). Environmental costs and responsibilities resulting from oil exploitation in developing countries: The case of the Niger Delta of Nigeria. *Journal of Business Ethics*, 69(1), 27–56. <https://doi.org/10.1007/s10551-006-9067-8>
37. Feng, Y., Wang, X., Du, W., Wu, H., & Wang, J. (2019). Effects of environmental regulation and FDI on urban innovation in China: A spatial Durbin econometric analysis. *Journal of Cleaner Production*, 235, 210–224. <https://doi.org/10.1016/j.jclepro.2019.06.184>
38. Findlay, R. (1978). Relative backwardness, direct foreign investment, and the transfer of technology: A simple dynamic model. *The Quarterly Journal of Economics*, 92(1), 1–16. <https://doi.org/10.2307/1885996>
39. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
40. Fortanier, F. (2007). Foreign direct investment and host country economic growth: Does the investor's country of origin play a role? *Transnational Corporations*, 16(2), 41–76. <https://digitallibrary.un.org/record/621972?ln=en>
41. Goldar, B., & Banga, K. (2020). Country origin of foreign direct investment in Indian manufacturing and its impact on productivity of domestic firms. In N. S. Siddharthan & K. Narayanan (Eds.), *FDI, technology and innovation* (pp. 13–55). https://doi.org/10.1007/978-981-15-3611-3_2
42. Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis*. Pearson Education International.
43. Henckel, T., & McKibbin, W. J. (2017). The economics of infrastructure in a globalized world: Issues, lessons and future challenges. *Journal of Infrastructure, Policy and Development*, 1(2), 254–272. <https://doi.org/10.24294/jipd.v1i2.55>
44. Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *New challenges to international marketing* (Advances in International Marketing, Vol. 20, pp. 277–319). Emerald Group Publishing. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
45. Hirschman, A. O., & Sirkin, G. (1958). Investment criteria and capital intensity once again. *The Quarterly Journal of Economics*, 72(3), 469–471. <https://doi.org/10.2307/1882237>
46. Isobe, T., Makino, S., & Montgomery, D. B. (2000). Resource commitment, entry timing, and market performance of foreign direct investments in emerging economies: The case of Japanese international joint ventures in China. *The Academy of Management Journal*, 43(3), 468–484. <https://doi.org/10.2307/1556405>
47. Kaur, M., Khatua, A., & Yadav, S. S. (2016). Infrastructure development and FDI inflow to developing economies: Evidence from India. *Thunderbird International Business Review*, 58(6), 555–563. <https://doi.org/10.1002/tie.21784>

48. Khan, A. A., Asad, M., Khan, G. U. H., Asif, M. U., & Aftab, U. (2021). Sequential mediation of innovativeness and competitive advantage between resources for business model innovation and SMEs performance. In *Proceedings of the International Conference on Decision Aid Sciences and Application* (pp. 724–728). IEEE. <https://doi.org/10.1109/DASA53625.2021.9682269>
49. Khan, S. H., & Agha, S. (2015). Impact of FDI in U.A.E. over the main elements of sustainable development: Economy and environment. *Journal of Emerging Trends in Economics and Management Sciences*, 6(7), 263–267. <https://journals.co.za/doi/abs/10.10520/EJC174465>
50. Klarin, A., & Ray, P. K. (2019). Political connections and strategic choices of emerging market firms: Case study of Russia's pharmaceutical industry. *International Journal of Emerging Markets*, 14(3), 410–435. <https://doi.org/10.1108/IJOEM-05-2016-0138>
51. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
52. Lane, D. (1988). *Soviet labour and the ethic of communism: Full employment and the labour process in the USSR*. Routledge. <https://doi.org/10.4324/9780429306983>
53. Lipsey, R. G. (2002). Some implications of endogenous technological change for technology policies in developing countries. *Economics of Innovation and New Technology*, 11(4–5), 321–351. <https://doi.org/10.1080/10438590200000003>
54. Lu, J., Liu, X., Wright, M., & Filatotchev, I. (2014). International experience and FDI location choices of Chinese firms: The moderating effects of home country government support and host country institutions. *Journal of International Business Studies*, 45(4), 428–449. <https://doi.org/10.1057/jibs.2013.68>
55. Mian, A., Straub, L., & Sufi, A. (2021). Indebted demand. *The Quarterly Journal of Economics*, 136(4), 2243–2307. <https://doi.org/10.1093/qje/qjab007>
56. Moll, R. J., Cepek, J. D., Lorch, P. D., Dennis, P. M., Tans, E., Robison, T., Millsbaugh, J. J., & Montgomery, R. A. (2019). What does urbanization actually mean? A framework for urban metrics in wildlife research. *Journal of Applied Ecology*, 56(5), 1289–1300. <https://doi.org/10.1111/1365-2664.13358>
57. Nadeem, M., Bahadar, S., Gull, A. A., & Iqbal, U. (2020). Are women eco-friendly? Board gender diversity and environmental innovation. *Business Strategy and the Environment*, 29(8), 3146–3161. <https://doi.org/10.1002/bse.2563>
58. Nosek, B. A. (2005). Moderators of the relationship between implicit and explicit evaluation. *Journal of Experimental Psychology: General*, 134(4), 565–584. <https://doi.org/10.1037/0096-3445.134.4.565>
59. Omri, A., & Hadj, T. B. (2020). Foreign investment and air pollution: Do good governance and technological innovation matter? *Environmental Research*, 185, 109469. <https://doi.org/10.1016/j.envres.2020.109469>
60. Peress, J., & Schmidt, D. (2022). *Uncertainty about what's in the price* (Working paper). https://www.acem.sjtu.edu.cn/sffs/2022s/file/Paper8_Joel%20Peress.pdf
61. Petach, L., & Tavani, D. (2019). No one is alone: Strategic complementarities, capacity utilization, growth, and distribution. *Structural Change and Economic Dynamics*, 50, 203–215. <https://doi.org/10.1016/j.strueco.2019.07.001>
62. Petras, E. M. (1988). *Jamaican labor migration: White capital and black labor, 1850-1930*. Routledge. <https://doi.org/10.4324/9780429044076>
63. Philip, L. D., Sertoglu, K., Akadiri, S. S., & Olasehinde-Williams, G. (2021). Foreign direct investment amidst global economic downturn: Is there a time-varying implication for environmental sustainability targets? *Environmental Science and Pollution Research*, 28(17), 21359–21368. <https://doi.org/10.1007/s11356-020-12053-8>
64. Salamon, L. M., Sokolowski, S. W., & Haddock, M. A. (2011). Measuring the economic value of volunteer work globally: Concepts, estimates, and a roadmap to the future. *Annals of Public and Cooperative Economics*, 82(3), 217–252. <https://doi.org/10.1111/j.1467-8292.2011.00437.x>
65. Sarstedt, M., Ringle, M. C., Smith, D., Reams, R., & Hair, J. F., Jr. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105–115. <https://doi.org/10.1016/j.jfbs.2014.01.002>
66. Shahbaz, M., Nasir, M. A., & Roubaud, D. (2018). Environmental degradation in France: The effects of FDI, financial development, and energy innovations. *Energy Economics*, 74, 843–857. <https://doi.org/10.1016/j.eneco.2018.07.020>
67. Sharma, D., & Tenyane, K. (2019). *Does public infrastructure investment contribute to economic growth in South Africa?* [Bachelor's thesis]. <http://www.diva-portal.se/smash/get/diva2:1323869/FULLTEXT01.pdf>
68. Sheikh, U. A., Asad, M., & Mukhtar, U. (2020). Modelling asymmetric effect of foreign direct investment inflows (FDI), carbon emission (CO₂) and economic growth (EG) on energy consumption of South Asian region: A symmetrical and asymmetrical panel autoregressive distributive lag model approach (non-linear PARDL). *Accountancy Business and the Public Interest*, 19, 193–221. <https://tinyurl.com/y2nfzr4>
69. Simelyte, A., Dudzeviciute, G., & Liucvaitiene, A. (2017). Scandinavian foreign direct investment and economic growth of the Baltic States. *European Journal of Sustainable Development*, 6(3), 105–115. <https://doi.org/10.14207/ejsd.2017.v6n3p105>
70. Solarin, S. A., & Al-Mulali, U. (2018). Influence of foreign direct investment on indicators of environmental degradation. *Environmental Science and Pollution Research*, 25, 24845–24859. <https://doi.org/10.1007/s11356-018-2562-5>
71. Teng, J.-Z., Khan, M. K., Khan, M. I., Chishti, M. Z., & Khan, M. O. (2021). Effect of foreign direct investment on CO₂ emission with the role of globalization, institutional quality with pooled mean group panel ARDL. *Environmental Science and Pollution Research*, 28(5), 5271–5282. <https://doi.org/10.1007/s11356-020-10823-y>
72. The World Bank. (2004). *African development indicators 2004* (Drawn from the World Bank Africa Database). <https://doi.org/10.1596/0-8213-5720-4>
73. Tipu, S. A. A., & Sarker, A. E. (2020). Developing an integrative dynamic framework of indigenous entrepreneurship: The case of United Arab Emirates. *International Journal of Public Administration*, 45(3), 441–451. <https://doi.org/10.1080/01900692.2019.1672184>

74. Waqih, M. A. U., Bhutto, N. A., Ghumro, N. H., Kumar, S., & Salam, M. A. (2019). Rising environmental degradation and impact of foreign direct investment: An empirical evidence from SAARC region. *Journal of Environmental Management*, 243, 472-480. <https://doi.org/10.1016/j.jenvman.2019.05.001>
75. Wong, M. F., Fai, C. K., Yee, Y. C., & Cheng, L. S. (2019). Macroeconomic policy and exchange rate impacts on the foreign direct investment in ASEAN economies. *International Journal of Economic Policy in Emerging Economies*, 12(1), 1-10. <https://doi.org/10.1504/IJEPEE.2019.098629>
76. Young, H. P. (1998). *Individual strategy and social structure: An evolutionary theory of institutions*. Princeton University Press. <https://doi.org/10.2307/j.ctv10h9d35>
77. Zeqiraj, V., Hammoudeh, S., Iskenderoglu, O., & Tiwari, A. K. (2020). Banking sector performance and economic growth: Evidence from Southeast European countries. *Post-Communist Economies*, 32(2), 267-284. <https://doi.org/10.1080/14631377.2019.1640988>