

**RESEARCH PAPER****The Law and Corporate Environmental Responsibility: An Analysis of Pakistani Listed Oil Refineries****¹Ch. Ahtesham ul Haq Dhariwal *, ²Muhammad Atif Nazir and ³Mian Tariq Javed**

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***Corresponding Author:** Muhammad.nazir@law.uol.edu.pk**ABSTRACT**

This study investigates the extent, reasons for, and consequences of environmental laws, rules, and regulations on corporate environmental abuses. The study limits its scope to the oil refineries listed on the Pakistan Stock Exchange. In light of state regulations and accountability through litigation, the effectiveness of the law on corporate environmental responsibility is explored. Environment means Air, water, land, buildings, structures, roads, all social and economic conditions affecting community life etc. Its importance was recognized post industrialization, when the world became a global village. Where the globalization leads to the development, it also badly damages the environment. And now environmental protection has become a sensitive global issue. There are number of endogenous and exogenous factors that effects the environment Apart from these only the state regulations and the rule of law is considered in this study. To explain the relationship and significance of the law on corporate environmental responsibility, a regression analysis based on panel data is applied. The explanatory variables include the rule of law, state regulations, and corporate accountability through litigation. The results depict a contrary relationship. The rule of law is positively associated, whereas state regulations and accountability through litigation have an inverse relationship with corporate environmental responsibility. Litigation is found to be insignificant and shows a 53% deviation from the mean value. This indicates that the judicial system of Pakistan is not very effective; however, improvements in the rule of law can encourage oil companies to ensure their environmental responsibilities. There is a need of one law that deals with all the constituents of environment. The implementation of environmental regulations must be ensured by the state or government agencies, and the law should prevail and rules shall be applied irrelevant to the status and position of the wrongdoer.

KEYWORDS

Climate Change, Environmental Damage, Environmental Laws, State Regulations, Rule of Law

Introduction

The world is facing new challenges related to climate change. This change is the result of direct and indirect interference with nature by individuals and corporations. Carbon emissions are one such environmental hazard that can affect more than one country (J. Environment Law and Litigation). The issue was highlighted in (The Rio Declaration on Environment and Development, 1992), directing governments to address the problem of global pollution. In the pertinent section, Principle 13 declares that "States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage."

Keeping in view its dire consequences the following goals were set under Article 2, (United Nations Framework Convention on Climate Change, Paris Agreement, 2015), that is holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels; low greenhouse gas emissions development, and climate-resilient development. and Article 3, undertakes ambitious efforts by all parties of the conference as per nationally determined contributions to the global response (Nadeem, Yaseen & Muzaffar, 2023).

Environmental damage by business enterprises

The role of business corporations is crucial because, without them, most sustainable development goals would never be accomplished. On the one hand, business enterprises help the economy by creating jobs and other benefits; on the other hand, they negatively impact the environment through externalities.

Global firms often operate in countries with loose regulations, which can lead to several violations of human rights, such as child labor, forced labor, unfavorable working conditions, and environmental harm. Formal international and national rules, civil society's use of non-governmental organizations to hold businesses accountable, and transnational litigation are the three main ways that multinational firms are governed (Newell, 2001).

The ultimate objective of business enterprises is to maximize profit. For this, they choose those states where rules and regulations are not strict. The UNFCCC did not lead to legally binding commitments (Petersmann, 2022). There is no legally enforceable international agreement, and the negative effects of multinational corporations have not been sufficiently addressed by voluntary private initiatives (Bartley, 2018); (LeBaron, Lister, & Dauvergne, 2017). Human rights violations and serious environmental damage have not been stopped by voluntary actions alone. (Dauvergne & Lister, 2012); (Gustafsson, 2018); (LeBaron, Lister, & Dauvergne, 2017), and There is a growing consensus among scholars and policymakers that legally binding demand-side rules are necessary to compel businesses to comply. (Lenschow, Newig, & Challies, 2016; Moser & Leipold, 2021; Nkwor & al., 2024; Batool, Asmat & Muzaffar, 2023).

According to their analysis, MNCs employ less expensive energy sources in institutionally weaker nations to increase their profits. The offshore activities of MNCs in host countries have positive and significant relationships with sustainability practices (Lartey & al., 2021). Developing as well industrialized countries relax their rules and regulations to achieve their short-term goals and shift toward industry, which results in environmental damage that leads to climate change.

Corporate environmental responsibility is one component of the CSR. The European Commission officially defined CSR as “a voluntary activity, which combines both social and environmental concerns into business operations, and it is an interaction with firm’s stakeholders.” As countries develop, the demand for goods rises due to growth in population and urbanization. There would be a need for shelter (in housing, health care, education, or workplaces), and the construction of infrastructure dams, irrigation systems, etc. to cater for human activities (Elehinafe & al., 2022). As development seems to be very important in value, it still poses adverse effects on the environment in the form of emission of pollutants. The pollutants are in the form of gas, liquid, and solid.

Considering its performance in the areas of sustainability and environmental protection, the oil sector has often been in the focus of criticism. The Gulf of Mexico oil disaster by British Petroleum, which contaminated the water and caused numerous other problems, has seriously questioned these groups' dedication to environmental preservation. By choosing the oil businesses listed on the Pakistani stock exchange, we have attempted to concentrate on the relationship between CER and the function of legislation in the Pakistani environment in the current study.

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Literature Review

This portion addresses the work already done. the current laws, rules, and literature that address the meaning of corporate environmental responsibilities, the basis of international environmental law, state regulatory policies, and remedies available through litigation.

Corporate environmental responsibility

The responsibility of business enterprises applies to all enterprises regardless of their size, sector, operational context, ownership, and structure. Bowie argues that business has a special obligation "to avoid intervention in the political process to defeat or weaken environmental legislation". The economy shall develop instead of growing for sustainable development. Businesses must use resources at appropriate rates and compensate ecosystems for the loss of productive capacity caused by their activity (Desjardins, 1998). According to the stakeholder theory (Friedman and Miles 2010), from the perspective of internal stakeholders, the owner of the company hopes that managers can faithfully fulfill their social responsibilities and disclose more information to the outside world, The corporate environmental responsibility (CER) is the part of corporate social responsibility and is measured by the disclosure reports.

Rule of Law and Corporate Environmental Responsibility

The rapid growth of multinational companies' economic activities and their effect on human rights has placed MNCs under the ambit of international laws. (Kamminga &

Zia-Zarifi, 2021); (Ascencio, Singh, & Alhorr, 2024). There shall be access to a remedy which may include apologies, restitution, rehabilitation, financial or non-financial compensation, and punitive sanctions. (Guiding principles on business and human rights, 2011). The clear frameworks, fair accountability mechanism, and stakeholder engagement are not up to the mark to ensure effective environmental sustainability (Atta & Sharifi, 2024). The law of the state shall prevail instead of international law for generality, equality before the law, the independence of courts, and due process rights (Pavel, 2020). (Atta & Sharifi, 2024) found that the rule of law plays an important role in enhancing environmental performance across developed and developing countries. Relying on the existing literature, the author depicts the direct relationship of the rule of law with corporate environmental responsibility.

State regulations and Corporate environmental responsibility

Environmental regulations encourage green technology and environmental responsibility in manufacturing companies. (Wang, Yang, Fu, Fan, & Zhou, 2021). The command control and market-participation environmental regulations affect export technological sophistication through green invention (Hu, Sun, & Dai, 2021). Mandatory corporate environment responsibility disclosure policy can significantly decrease environmental pollution (Wang, Liao, & Li, 2021). Hence, a positive relationship of environmental regulations with corporate environmental responsibilities is depicted.

Accountability through court decisions and Corporate environmental responsibility

The purpose of the development of business enterprises and human rights through environmental degradation was to make multinationals accountable under the law (McCorquodale, 2024). The parent company can be held liable for duty of care to foreign claimants by the operations of their subsidiary abroad and the litigation against the English parent companies, for the environmental damage caused by their subsidiary company in the host states, can proceed (Vedanta Resources plc and Another v Lungowe and Others., 2019). Both international law and the United States, Dutch, and British domestic case laws hold transnational liabilities of MNCs responsible in their home state for violations committed abroad (Hu, Ong, Zhu, Liu, & Song, 2015). Therefore, if corporations are accountable for their acts of environmental degradation, they will make policies more environmentally friendly, so the following relationship is expected between corporate accountability through litigation and their environmental responsibilities. It is depicted from the court decisions in environmental violations and corporate environmental crime.

Table 1
The assumed theoretical relationships between variables and their measures

Variables	Measure	Expected relationship
CER	Company disclosure reports	
ROL	Criminal and civil justice system score index	+ or direct relationship
SR	Regulatory enforcement index	+ or direct relationship
TNL	Binary variable	+ or direct relationship

Theories – an overview

Agency Theory

Agency theory explains the relationship between the company's shareholders and managers. It highlights the interests of the principals (Shareholders) and the agents

(Managers). According to agency theory, agents shall watch the principal's interests; however, conflict can arise concerning corporate social responsibilities, which affect the profit maximization goal of the principals. Despite their economies of scale, large public corporations struggle with agency issues or the division of ownership and control. On the other hand, family-based public firms, partnerships, sole proprietorships, and even private businesses have lower agency expenses and relationships but lack economies of scale (Chowdhury, 2021).

Stakeholder Theory

Stakeholder theory discusses the interests of all stakeholders, such as investors, employees, customers, suppliers, communities, governments, and trade associations. Managers are recommended to prioritize employees' benefits and invest in offering a healthy and safe working environment or employee support programs (Mu, Xu, & Chen, 2024).

Triple Bottom Line Theory

Through the inclusion of an organization's contributions to social well-being, environmental health, and a just economy, the triple-bottom-line theory expands the scope of conventional commercial success indicators. The three "P's" – people, planet, and prosperity – are frequently used to describe these bottom-line categories (Correia, 2019).

Contingency Theory

The situational theory is another name for this approach. It makes the case that a manager's or leader's chosen method or style depends on several variables, including the organization's size, the relationship between the leader and followers, the leader's influence, and the overall operational state of the company. The management of a huge organization would lean toward the Max Weber bureaucracy. It is set apart by formal authority, specialty, hierarchy, and other traits. However, a relatively small business will fail if it tries to follow the former's approach (Mark & Erude, 2023).

Hypotheses

H1: Rule of law positively affects corporate environmental responsibility

H2: State regulations positively relate to corporate environment responsibility.

H3: Accountability positively affects the corporate environment's responsibility.

Material and Data

Access to the Data

Primary data is obtained from the statutes and court decisions. Secondary data is collected from peer-reviewed journals, the company's annual reports, securities and exchange commission websites, worldjusticeproject.org, www.msci.com, etc.

The study is based on a Socio-legal research design and explains the relationship and significance of independent variables. Quantitative regression analysis is done, based on panel data collected from primary as well as secondary sources

The following is one way to write the theoretical model:

Corporate Environmental Responsibilities (CER) = f (rule of law (ROL), host states regulations (SR), accountability through litigation (TNL)).

Econometric model:

$$CER_{it} = \alpha_i + \beta_1 ROL_{it} + \beta_2 SR_{it} + \beta_3 TNL_{it} + \epsilon_{it}$$

Where:

Explained variable:

CER = corporate environmental responsibility (company disclosure reports).

Explanatory variables:

ROL = rule of law (criminal and civil justice system score index)

SR = state regulations (regulatory enforcement index)

TNL = accountability through litigation (court decisions in environmental violations)

Result and Discussion

Table 2
Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
CER	10	0.50	1	0.75	0.118
ROL	10	0.0365	0.38	0.373	0.006
SR	10	0.360	0.39	0.375	0.012
TNL	10	0.00	1	0.50	0.53

Table 2 explains the descriptive stats. With an average CER value of 0.75, the disclosure rate of oil and gas companies' environmental responsibility is 75%. The rule of Law and the state regulations are about 37%, which is quite low. The highest deviation is found in the litigation, which is about 53% from the mean value. In the regression analysis, the variable is likewise shown to be unimportant.

Table 3
Empirical results

Variable	Coefficient	Std. Error	t-Stat	p-Value
CONST	-1.740	3.231	-0.54	0.610
ROL	9.821	6.591	1.49	0.187
SR	-3.036	3.729	-0.81	0.447
TNL	-0.070	0.079	-0.88	0.412

Table 3 explains the regression results. None of the independent variables is statistically significant under a 95% confidence interval (p-values > 0.05). The rule of law positively affects corporate environmental responsibility. The null hypothesis is accepted, however, there is no impact due to the limited data and scope. The state laws and litigation negatively affect the corporate environmental responsibility; hence, based on the results, the null hypothesis of these variables is rejected.

Table 4
correlation between the variables

	CER	ROL	SR	TNL
CER	1.00	0.56	-0.40	-0.00
ROL	0.56	1.00	-0.45	0.33
SR	-0.40	-0.45	1.00	-0.45
TNL	-0.00	0.33	-0.45	1.00

Table 4 explains the relationship between the explanatory and dependent variables. The rule of law has a direct relationship with corporate environmental responsibility. It means if the law prevails and the country strictly adheres to the set principles of law, the oil and gas companies will refrain from degrading the environment. The state environmental laws and available remedies through courts show an inverse relationship with corporate environmental responsibility. Means the enactment of state regulations decreases the intent of oil and gas companies to protect the environment. This may be certain exogenous factors.

Conclusion

Human development depends on the economic growth. Companies play an important role to achieve this but, the growth must be sustainable. there is obligation on business enterprises to operate in a way that protects environment. Corporate environment responsibility is one of the constituents of the corporate social responsibility (Muzaffar, & Choudhary, 2017). The state is responsible to protect life and property of its citizens. This can be achieved by enactment and effective enforcement of the laws. Rule of law, state regulations and the judicial remedies are few factors that halt the corporations to damage environment. In Pakistan, apart from the Pakistan Penal Code, 1860. The environmental protection Act, 1997 is the special law that exclusively deals to the environment protection. The act has administrative as well as judicial wings. The function of executive limb is to implement the relevant rules and regulate the natural as well as artificial persons.

In this study few factors are analyzed to explain their effects on corporate environmental responsibility. The most effective factor found is the Rule of law. It has direct impact to control environment damage by the corporations. In world ranking Pakistan stands at 129th number which is not strong as far as adherence to rule of law is concerned. Second the weak institutions and lack of legal awareness in general public has made the state regulations and accountability through judiciary ineffective (Muzaffar, Fern & Yaseen, 2023).

In short there are numbers of determinants of corporate environmental responsibility. These may include endogenous such as the corporate culture, as well as exogenous variables states economic position. In this study the research is limited to legal factors that explained the negligible variation of the dependent variable. It seems that rule of law presents the broader view and have significant impact. So, the criminal and civil justice system of the country and in time justice is the core to combat environmental damage by the business corporations.

Recommendations

The environment's key components are the lithosphere (rock and soil, etc.), hydrosphere (water), and the atmosphere (air). These components are interconnected and affect each other. So, either separate legislation or all-inclusive legislation that addresses all components generated by the corporations should be enacted.

Instead of a plethora of laws, specific special laws should be enacted, and the rest shall be repealed, as the different remedies add to the inefficiency and ineffectiveness.

The precautionary principle should be followed while enacting new laws or amending existing laws.

As the violation results in damaging the environment and human health in general, criminal liability may also be imposed on the corporations along with civil penalties.

The state should put efforts into improving its world ranking of the administration of justice and the rule of law.

General public awareness is essential to report the environmental violation activities of the business enterprises. Education in environmental matters, for the younger generation as well as adults, giving due consideration to the underprivileged, is essential to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the environment in its full human dimension (Declaration of the United Nations Conference on the Human Environment., 1972).

The judiciary is a very important organ of the state as court decisions refine the intent of law, and the law of common law countries is based on precedents. Therefore, the judiciary shall play the leading role in protecting the environment from corporate unlawful activities.

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