

Eco-Regulatory Compliance and Sustainability Performance: Unveiling the Mediating Role of Corporate Green Culture



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Abstract: Environmental concerns and tougher regulations have compelled financial organizations to incorporate sustainability into their strategy and business operations. The idea of environmental governance is becoming more popular, but few studies have been undertaken on the organizational mechanism by which eco-regulatory compliance leads to sustainability performance, especially for Islamic banking. In light of the above, the current study aims to investigate the direct effect of eco-regulatory compliance on sustainability performance and the mediating effect of corporate green culture in this regard, based on the Institutional Theory. Data from a cross-sectional survey were gathered using a standardized questionnaire from 346 top- and middle-level managers working in full-fledged Islamic banks in Pakistan. The proposed relationships were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4. The findings reveal that the impact of corporate green culture on sustainability performance is significant and positive, and it partially mediates the relationship between eco-regulatory compliance and sustainability performance, suggesting that when the regulation is adhered to, the cultural values of the organization are influenced by its green culture. These findings add to the Institutional Theory, as they indicate that corporate green culture serves as an organizational mechanism that enables external regulatory pressures to be transformed into sustainability performance.

Keywords: Eco-regulatory Compliance, Corporate Green Culture, Sustainability Performance, Institutional Theory, Islamic Banking, PLS-SEM

Introduction

Sustainability is becoming a strategic imperative, not a voluntary corporate responsibility, due to the increasing intensity of climate change, biodiversity loss, environmental deterioration and resource depletion. With the growing pressure on organizations to think economically, socially and environmentally, governments around the world have begun to enact harsher environmental laws to promote sustainable business practices (Porter & Van Der Linde, 1995). The regulatory measures aim at minimizing industrial pollution, increasing resource efficiency, promoting cleaner production systems and ensuring integration of companies' production process with global sustainability agendas, including the United Nations Sustainable Development Goals (SDGs) (United Nations, 2015). This means that organizations have come to be expected to not just meet environmental standards, but also embed sustainability into their strategies and operations. In this context, compliance with environmental regulations has become a significant means of an organization's reaction to its environmental responsibilities. Eco regulatory compliance is the degree of compliance of the organization to laws, regulations, standards and policies that are developed to reduce the potential of environmental impacts and encourage responsible use of resources (Aragón-Correa et al., 2020). Environmental law compliance has long been considered an obligation to the law and a requirement to reduce penalties and preserve the legitimacy of the enterprise. But the current business context is shifting towards viewing regulatory compliance as a strategic competence that encourages organizational innovation,

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improves environmental management practices, boosts stakeholder trust and establishes long-term competitive advantages (Javed et al., 2025; Truong et al., 2024). Organizations are not just expected to meet legal obligations, but to use compliance as a catalyst for a wider sustainability transformation.

Even as there is increasing focus on environmental regulations, attaining sustainability performance is a longstanding challenge for many organizations. Sustainability performance is not just about financial results, but also about environmental stewardship, social responsibility and economic resilience, and how an organization can generate long-term value while having a positive impact on the environment and society (de Almeida Barbosa Franco et al., 2024). While regulation sets minimum environmental standards, compliance does not necessarily lead to substantive sustainability results. Organizations develop compliance-driven practices to meet external regulations, rather than changing their ways, culture or philosophy (Ben Khaled & Gond, 2020). This is why we can see that, for example, two firms that are similarly regulated can achieve vastly different results with regard to sustainability performance, and that the binding nature of external regulations may not be enough to account for variations in sustainability performance.

This gap shows the significance of internal mechanisms of the organizations to implement what is required in the surrounding environment as sustainable mechanisms. Corporate green culture has gained increasing focus from scholars and managers among these capabilities. Corporate green culture is the common environmental values, beliefs, norms and practices that promote the organizational members to take the responsibility for the environment as a part of their day-to-day decision making (Aggarwal & Agarwala, 2021; Subramanian & Suresh, 2023). When environmental sustainability becomes part of an organization's culture, employees are more likely to embrace green initiatives, managers will be more inclined to dedicate resources to sustainability, and environmental goals become part of the organization's strategy and routine (Lin et al., 2024; Noor Faezah et al., 2024; Roscoe et al., 2019). Therefore, corporate green culture can be a key mechanism within the organization that can turn compliance with the regulations into a proactive sustainability activity that can lead to high performance in sustainability aspects.

Institutional Theory provides a good explanation of the relationship between external regulatory pressures and internal organizational culture. Theory suggests that organizations act in reaction to governmental and regulatory pressures in order to maintain their legitimacy and access to important resources (Beddewela & Fairbrass, 2015). Although the regulatory forces stimulate organizational change, the degree to which these external expectations become embedded in the organization's norms, values and routines is vital to sustaining organizational change (Palthe, 2014). There are, therefore, two ways in which environmental regulations might impact the organizational outcomes: through compliance and through the creation of a culture within the organization that is permeated with environmentally responsible attitudes and behaviors throughout the organization. This implies that corporate green culture could be an important explanatory mechanism by which eco-regulatory compliance relates to sustainability performance.

While there has been a large number of studies that have investigated environmental regulations, corporate sustainability, and green organizational practices, there are gaps in understanding about the interactions between these constructs. Previous research has focused on the immediate impact of environmental policies on organizational performance or the role of green culture as a precondition or context for sustainable impacts (Gunarathne et al., 2021; He, 2025; Huynh et al., 2024). Limited research has been conducted to understand how the corporate green culture works as a mediating process in converting the eco-regulatory compliance into enhanced sustainability performance. This means that the organization processes that translate compliance to real sustainability outcomes are not fully understood. This gap is especially significant since understanding the mechanisms through which regulatory compliance is linked to sustainability performance can help explain why some organizations can be more successful than others at achieving sustainability even when they face similar regulatory contexts.

To fill these gaps, this study investigates the direct link between eco-regulation compliance and sustainability performance and explores the mediating effect of the corporate green culture. Drawing on

Institutional Theory, this study suggests that external pressures from the regulatory environment can be harnessed to promote the internal green culture of an organization and thereby improve its sustainability performance. By doing so, the study extends sustainable organization management literature by bringing insights into the organizational mechanisms by which the implementation of regulatory compliance translates into sustainable organizational outcomes. The results can be of benefit to policy makers and organizational leaders, as they prove that a focus on ensuring compliance with environmental legislation is not sufficient for organizations to achieve the best possible outcomes from such regulation; they must also create an organizational culture that is truly committed to environmental sustainability. These insights can help managers to shape strategies that meet regulatory requirements while simultaneously enhancing the long-term sustainability performance.

Literature Review

Underpinning Theory

The Institutional Theory, first put forward by Meyer and Rowan (1977) and expanded by DiMaggio and Powell (1983), describes the institutional influence of governments, regulators, professional groups, and societal expectations and how organizations react to it by changing their structure, policies, and practices. Organizations that seek legitimation are, at the same time, economically efficient and correspond to externally enforced rules and norms. Such alignment confers credibility on the organization, thus enhancing access to resources necessary for its survival. The institutional pressure identified by DiMaggio and Powell (1983), which is important to environmental sustainability, is coercive institutional pressure. Coercive pressures include both environmental laws and regulations, supervisory agencies, and obligations arising from other laws that compel companies to act in an environmentally responsible manner. More and more companies are not seeing compliance as a legal requirement, but as an expectation of regulators that should be incorporated into strategy and operations to achieve legitimacy and better environmental performance.

Institutional Theory thus maintains that external regulations become internalized in organizations over time (Wang et al., 2014). The expectations for regulation are built into the organizational policy, management systems, leadership practices and values of organizational personnel, creating an organizational culture that supports environmental responsibility (Fietz & Günther, 2021). Environmental regulations are therefore used as compliance instruments and as drivers to establish a green culture in the company, thus contributing to the sustainable decision-making process at all levels of the company. In this sense, environmental regulations in banking have progressed from pollution control to green financing rules, environmental risk assessment, sustainable investment, disclosures related to climate change, and responsible resource use. Thus, it is essential that banks, under pressure from ecological regulations, become institutionalized, both through internal policies, employee involvement and through environmentally responsible organizational values. According to Institutional Theory, if they are incorporated into the organizational culture, better sustainability performance can be expected.

Eco-Regulatory Compliance and Sustainability Performance

Environmental regulations are one of the primary policy instruments by which organizations can be put under pressure to act in an environmentally responsible way and therefore to promote sustainable development. Eco-Regulatory Compliance is a concept related to environmental compliance and regulation, which describes the compliance of organizations with environmental law, environmental regulations, environmental standards and other directives from the government that aim to prevent environmental degradation and to ensure sustainability in the compliance processes of the organization (Opoku, 2025). Regulatory compliance is now perceived as a capability that strengthens organizational legitimacy, operational efficiency and competitiveness in the longer term, as opposed to a legal obligation (Burdon & Sorour, 2020).

Adherence to environmental laws drives organizations to further develop their environmental management system, make effective use of resources, minimize pollution and incorporate sustainability into

their operations (Awewomom et al., 2024). This, in turn, results in superior environmental, social and economic performances, the three dimensions of sustainability performances. Previous research has largely confirmed that an increased degree of compliance with environmental laws has a positive effect on sustainability, because it leads to better environmental governance, improved corporate image, increased stakeholder trust and better resource management (Delmas & Toffel, 2008; Eccles et al., 2014; Porter & Van Der Linde, 1995; Xu et al., 2024). In the field of banking, compliance with the regulations for green banking, environmental risk assessment level and sustainable finance guidelines enables banks to become part of the national sustainability agenda, while at the same time ensuring the resilience of the organizations. Based on this rationale, we hypothesize that:

H1: Eco-regulatory compliance positively influences sustainability performance.

Eco-Regulatory Compliance and Corporate Green Culture

Corporate green culture is the shared values, beliefs, norms and practices in the organization that foster environmentally responsible behavior at all organizational levels (Alemu, 2025; Li et al., 2023). Through institutional theory, it has been suggested that institutions exert pressure on an organization, which is then internalized through the creation of policies, routines and cultural norms at the organizational level (Scott, 2014). Therefore, environmental laws transcend the boundaries of legal requirements and become part of the corporate culture. Organizations create environmental management systems, adopt environmental policies that are geared towards sustainability, educate staff on environmental topics, and incorporate environmental goals into organizational decision-making under strict ecological agreements (Gao et al., 2025; Zaidi et al., 2025). These help further build common values on the environment and enhance the corporate green culture.

Empirical studies have shown that the more motivated organizations are to adopt environmental regulations, the more likely they are to create an organizational culture which is oriented towards sustainability, in terms of ecological commitment, organizational support, employee involvement and perpetual improvement of the environment (Jaganjac et al., 2024; Sarwar et al., 2025). Regulatory measures for green banking and sustainable finance move financial institutions toward an institutionalization of environmentally responsible values in the financial institution. Hence, it is important for organizations to build up their corporate green cultures if they are more eco-regulatory compliant. Thus, it is posited that:

H2: Eco-regulatory compliance positively influences corporate green culture.

Corporate Green Culture and Sustainability Performance

Corporate green culture has become one of the major competencies of the organization, which is necessary to implement the sustainability actions. A mature green culture encourages both employees and managers to have a green mindset in their daily decision making, operations, innovations and relationships with stakeholders (Ismail, 2025; Qalati et al., 2025). Based on Institutional Theory, organizations that internalize environmental norms are more likely to engage in environmentally responsible behavior and to turn regulatory expectations into organizational results (Galleli & Amaral, 2026). Indeed, if there is a strong consideration for environmental responsibility within the organizational culture, sustainable actions become part of the daily life of the organization, and not merely a set of measures that are implemented from time to time to comply with the law (Muralidhar et al., 2024).

The results of the majority of studies are consistently that a corporate green culture influences environmental innovation, operational efficiency, employees' commitment to the environment, organizational reputation, and sustainability performance (Abbas & Khan, 2023; Doghan et al., 2022; Fang et al., 2022; Shahzad et al., 2023). Strong environmental values in organizations better ensure improvements in ecological, social, and economic performance. Thus, a higher level of sustainability performance is expected

from organizations with more successful corporate green cultures. Therefore, it provides a compelling rationale to propose the following hypothesis:

H3: Corporate green culture positively influences sustainability performance.

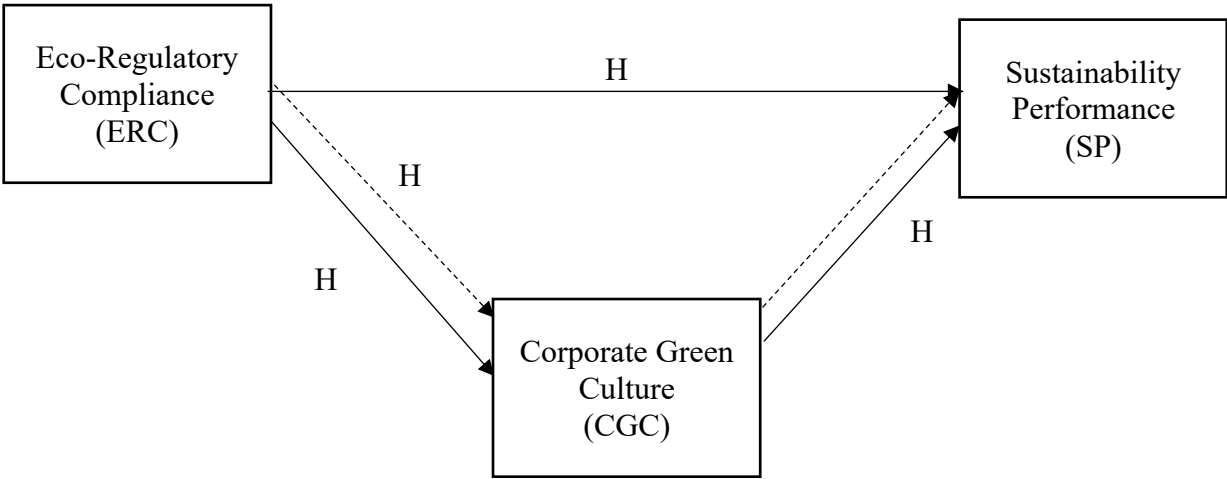
The Mediating Role of Corporate Green Culture

Compliance with environmental regulations doesn't necessarily lead to the best sustainability performance, but drives the organizations to act in a responsible manner regarding the environment (Aragón-Correa et al., 2020). This is because the regulations specify what the organizations are supposed to achieve, but not how to incorporate sustainability into the organizations' everyday work. In fact, the success of environmental regulations has been shown to depend on the level of institutionalization of the regulatory requirements in the organization's culture and values (Delmas & Toffel, 2008; Scott, 2014). Previous studies have shown that companies with good green cultures perform better on environmental management practices, employee ecological commitment, and sustainability outcomes as compared to others that merely react to regulation (Daily et al., 2012; Yong et al., 2019). So, one of the internal capabilities of the organization is the corporate green culture, which allows companies to turn the external demands of the environment into sustainable practices. Hence, the following hypothesis is proposed:

H4: Corporate green culture mediates the positive relationship between eco-regulatory compliance and sustainability performance.

Structural Research Model

Figure 1
Conceptual Framework of the Study



Research Design and Methodology

Research Design and Data Collection

The present study adopts a cross-sectional survey research design with a quantitative approach to explore the relationship of eco-regulatory compliance, green culture among the corporate entities and the sustainability performance in the Islamic banking sector of Pakistan. With quantitative research methods, researchers can test hypotheses that have been developed in theory, as well as examine relationships between latent variables using statistical procedures (Creswell & Creswell, 2017). Furthermore, cross-sectional surveys enable multiple data collection from many respondents at a time, making them popular in organizational and sustainability studies (Saunders et al., 2019).

The population consisted of the top and middle-level managers of Islamic banks in Pakistan functioning in fully fledged Islamic banks. These managers were chosen because they are actively involved in the implementation of environmental policies and regulatory compliance, and making strategic decisions on sustainability initiatives. As a result, they have sufficient experience to develop judgment on ecological practices and the sustainability performance of the organization.

They were targeted using a purposive sampling technique because they needed the required managerial experience and organizational expertise. The data collection was done using the structured online questionnaire prepared on Google Forms. To broaden the geographical reach and accessibility for the survey, the link was shared on LinkedIn, via emails and other professional contacts. 570 questionnaires were sent out, of which 60.7% were deemed usable, giving a total of 346 questionnaires. The participants in this study were completely voluntary, and anonymity and confidentiality were guaranteed; the data were only used for academic purposes.

Measures

The measurement scales used in the study were previously validated, which helped to increase the reliability and validity of the measures used. The five items developed by Lee (2017) were used to assess the level of compliance with eco-regulatory requirements. The six-item scale of Wang (2019) was adopted for the measurement of the corporate green culture, while the five-item scale of Gelhard and von Delft (2016) was adopted for the measurement of sustainability performance. All constructs were reflective latent variables and were assessed using a seven-item Likert Scale, ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Using previously validated measures enhances construct validity and comparability with other studies (Hair et al., 2021).

Data Analysis

The data collected were analyzed by using SmartPLS 4. PLS-SEM was used because it is best suited for prediction-oriented studies involving latent variables and mediation analysis and does not impose any conditions regarding multivariate normality (Hair et al., 2021). Moreover, PLS-SEM has been widely used in the field of sustainability, management and organizational studies to study multiple constructs' causal relationships.

The analysis was carried out in two stages. The measurement model was evaluated based on the indicator reliability, the Cronbach's alpha, the average variance extracted (AVE) and the heterotrait-monotrait ratio (HTMT) were used to examine the model's reliability and validity. After that, the structural model was evaluated by studying the collinearity, the path coefficients, the coefficient of determination (R^2), the effect sizes (f^2), predictive relevance (Q^2), and the significance of the direct and indirect relationships by using the bootstrapping method with 5,000 resamples.

Empirical Findings

Measurement Model Assessment

The measurement model was first tested to ensure the reliability and validity of the reflective constructs of the structural relationships. The reliability of the indicators, the internal consistency reliability, the convergent reliability, and the discriminant validity were examined, following Hair et al. (2021). As shown in Table 1, all indicator loadings were above the suggested cut-off of 0.70 and ranged from 0.863 to 0.964, thus supporting satisfactory indicator reliability (Hair et al., 2019). The factor loadings ranged from 0.863 to 0.946 for sustainability performance, 0.951 to 0.964 for corporate green culture and 0.897 to 0.935 for eco-regulatory compliance, indicating that each measurement item was a good representation of its underlying latent construct. Cronbach's alpha and composite reliability (CR) were used to assess the internal consistency reliability. The Cronbach's alpha values ranged from 0.950 to 0.982, and the composite reliability values ranged from 0.962 to 0.985, which is greater than the suggested value of 0.70 (Hair et al., 2021). This

indicates that the items which measure the construct are internally consistent. Average variance extracted (AVE) was used to test the convergent validity. AVE values ranged from 0.834 to 0.917; values higher than 0.50 indicate more than half of the variance of the variables of each construct (Fornell & Larcker, 1981). Overall, this confirms that there is convergent validity.

Table 1

Construct Reliability and Convergent Validity

Variables	Items	Factor Loadings	Cronbach's α	CR	AVE
Eco-regulatory Compliance	ERC1	0.903	0.95	0.962	0.834
	ERC2	0.912			
	ERC3	0.918			
	ERC4	0.935			
	ERC5	0.897			
Corporate Green Culture	CGC1	0.954	0.982	0.985	0.917
	CGC2	0.951			
	CGC3	0.963			
	CGC4	0.964			
	CGC5	0.96			
	CGC6	0.952			
Sustainability Performance	SP1	0.863	0.951	0.963	0.838
	SP2	0.912			
	SP3	0.931			
	SP4	0.946			
	SP5	0.922			

The Heterotrait-monotrait ratio (HTMT) was used to test the discriminant validity of construct discrimination according to Henseler et al. (2014), which is a more stringent test than the conventional one. The results presented in Table 3 were all below the conservative threshold of 0.85 and ranged from 0.620 to 0.758. This indicates that the constructs are empirically different from each other, and thus, adequate discriminant validity is demonstrated.

Table 2

Constructs	CGC	ERC	SP
Corporate Green Culture (CGC)	—		
Eco-regulatory Compliance (ERC)	0.758	—	
Sustainability Performance (SP)	0.703	0.62	—

Note. HTMT values below 0.85 indicate adequate discriminant validity (Hair et al., 2019; Henseler et al., 2014).

Structural Model

The satisfactory reliability and validity of the measurement model were established, and then the structural model was evaluated to test the hypotheses. Assessment of the model was done following the process of Hair et al. (2021), which included examination of model explanatory power, predictive ability, model fit, and significance of the hypothesized direct and indirect effects. The coefficient of determination (R^2) was used to evaluate the explanatory power, and the PLSpredict procedure was used to evaluate the predictive power by using the predicted values (Q^2). The standardized root mean square residual (SRMR) was used to determine overall model fit. R^2 values 0.75, 0.50 and 0.25 represent high, moderate and low levels of explanatory ability, respectively, as suggested by Hair et al. (2021). Likewise, if the value of Q^2 predict is positive, the model is relevant to its prediction; the larger the value, the better the predictive performance of the model.

Table 3 shows that the proposed model accounted for 53.9% of the variance in corporate green culture ($R^2 = 0.539$) and 48.2% of the variance in sustainability performance ($R^2 = 0.482$). The results indicate that the model is of moderate explanatory power for both endogenous constructs. In addition, Q^2 predict values were positive for the two models: 0.536 for corporate green culture and 0.347 for sustainability performance, respectively, showing that the model has good prediction power. The model also demonstrates an acceptable overall fit (SRMR value = 0.042, which is below the suggested cutoff of 0.08. (Hair et al., 2019; Hu & Bentler, 1999).

Table 3

Structural Model Summary

Endogenous Construct	R^2	R^2 Adjusted	Q^2 predict	Predictive Power
Corporate Green Culture (CGC)	0.539	0.537	0.536	Moderate
Sustainability Performance (SP)	0.482	0.479	0.347	Moderate

Note. Model fit indices: SRMR = 0.042.

Next, the bootstrapping with 5,000 resamples was employed for evaluating the structural relationships. Standardized path coefficient (β), t-value, and p-value were used to determine the significance of the hypothesized relationships. Table 4 and Figure 2 indicate that the eco-regulatory compliance has a significant and positive relationship with the corporate green culture ($\beta = 0.734$, $t = 23.324$, $p < 0.001$), which supports H1. In addition, eco-regulatory compliance shows a positive relationship with sustainability performance ($\beta = 0.201$, $t = 2.660$, $p = 0.008$) that supports H2. Furthermore, the positive effect of corporate green culture positively influences the sustainability performance ($\beta = 0.534$, $t = 7.342$, $p < 0.001$), supporting H3.

Table 4

Direct Effects (Hypothesis Testing)

Path	Hypothesis	β	t-value	p-value	Decision
ERC → CGC	H1	0.734	23.324	0.000	Supported
ERC → SP	H2	0.201	2.66	0.008	Supported
CGC → SP	H3	0.534	7.342	0.000	Supported

Intermediate mediations of corporate green culture were tested with a bootstrapping procedure to further study the mechanism by which eco-regulatory compliance affects sustainability performance. The indirect effect is statistically significant if there is mediation, while the direct effect is statistically significant if there is partial mediation but not full mediation, and the full mediation occurs if the direct effect is not statistically significant (Hair et al., 2019; Nitzl et al., 2016).

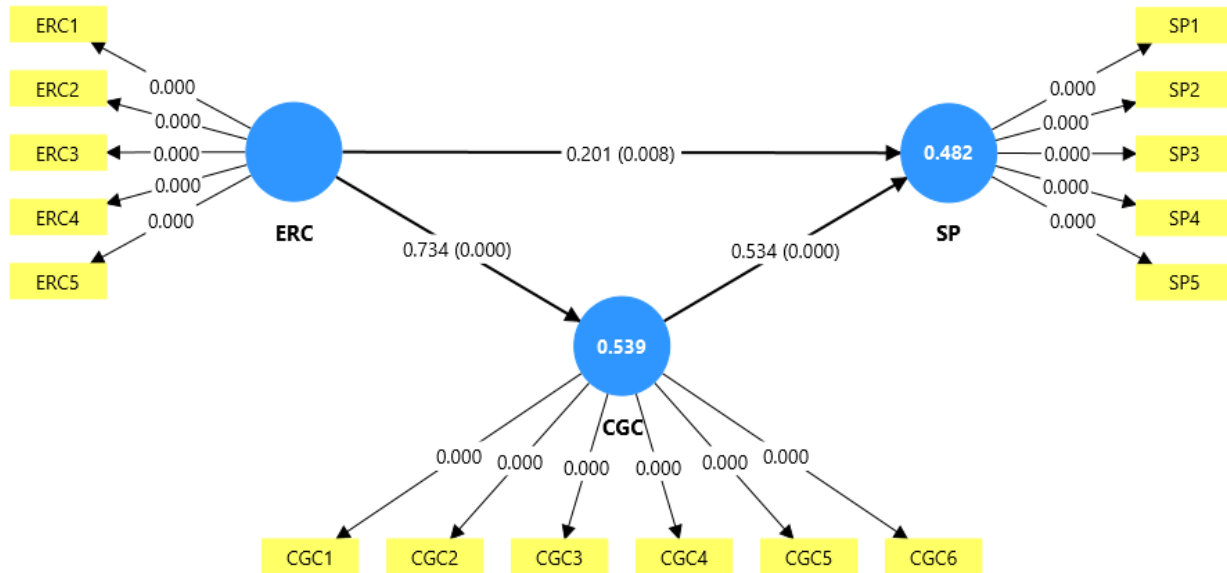
The indirect effect of eco-regulatory compliance on sustainability performance through corporate green culture was positive and statistically significant ($\beta = 0.392$, $t = 6.625$, $p < 0.001$) as shown in Table 5. The results showed that the direct effect (ERC to SP) and indirect effect (ERC to SP) remained significant, which means that there was partial mediation, and thus supports H4. Eco-regulatory compliance thus directly contributes to sustainability performance and indirectly through the corporate green culture.

Table 5

Indirect Effect (Mediation Analysis)

Indirect Path	Hypothesis	β	t-value	p-value	Mediation Type	Decision
ERC → CGC → SP	H4	0.392	6.625	0.000	Partial mediation	Supported

Figure 2
Structural Model Results



Discussion and Conclusion

This study empirically examines the effect of eco-regulatory compliance on the sustainability performance via corporate green culture in Islamic banks in Pakistan. According to the institutional theory, the eco-regulatory compliance affects the sustainability performance directly, and the development of corporate green culture has an indirect effect on the sustainability performance. The results from these were broadly in line with the conceptual model proposed and indicated the need to embed regulatory compliance within the organizational values and goals to pursue sustainability.

The results indicate that the eco-regulatory compliance positively contributes to the corporate green culture. Under ecological regulation, the Islamic Banks are institutionalizing the environmental values, policies and practices organization-wide. This is consistent with previous research, which has identified that if the organizations comply with eco-regulations, then the organization develops an environmentally oriented organizational culture, a culture that supports the implementation of sustainable practices (Aragón-Correa & Sharma, 2003; Delmas & Toffel, 2008). Islamic banks' regulatory compliance in this regard appears to serve to reinforce ethical and ecological values and, hence, corporate green culture.

The results further suggested the positive influence of eco-regulatory compliance on sustainability performance, which supported H2. This implies that banks which meet environmental standards are more likely to seek to improve their ecological, social and economic performance, but only if they are Islamic banks. According to Institutional Theory, if organizations meet the expectations of those involved in the institution, they will be given legitimacy and trust from stakeholders, which will ultimately lead to better organizational performance (Scott, 2014). The findings also support the Porter Hypothesis that "green regulation leads to organizational improvement and innovation that increases long run competitiveness" (Porter & Van Der Linde, 1995). The results suggest that environmental compliance should be considered a strategic tool for the achievement of sustainable organizational performance, rather than a legal obligation to comply with the law, as in many previous studies (Berrone et al., 2013; Testa et al., 2018). This confirms that H3 is valid, thus it validates a positive correlation between corporate green culture and sustainability performance. This means that if businesses have firm values and norms for sustainability in the organization, they will achieve better sustainability performance.

The institutional theory argues that change in the organization will only be permanent when it becomes internalized within the organizational culture, or internal institutional pressure. A corporate green culture would, therefore, require managers and employees to take the environment into account in their decision-

making process and improve the organization's sustainability performance. The result is in line with the previous research, which found that organizations with an environmentally friendly culture foster environmental innovation, commitment of employees and environmental performance (Chang & Chen, 2012; Chen, 2011; Yong et al., 2019).

The results of the mediation analysis revealed that the relationship between eco-regulatory compliance and sustainability performance was partially mediated by corporate green culture, which added support for H4. The indirect effect is significant because eco-regulatory compliance has a positive impact on sustainability performance in addition to the direct effect, and the effect is transmitted via the establishment of an organizational culture of environmental responsibility. As both direct and indirect effects are considerable, the mediation is partial, meaning that green culture in the company is an indispensable mechanism in the organization for the process of bringing about regulatory compliance into green gains. Indeed, this fits the Institutional Theory since regulatory pressures are not enough to reach the maximum sustainability performance unless they become institutionalized in values and practices.

The study's findings would add to the sustainability and environmental management literature by extending the applicability of Institutional Theory to the Islamic banking context and how the concept of corporate green culture is crucial to the organizational mechanisms that connect regulatory compliance and performance on sustainability issues. The results imply that by itself, the regulatory measures would not be enough for long-term sustainability goals unless there was also an organizational culture that fosters environmental responsibility and sustainability decision-making. Therefore, Islamic banks should complement regulatory compliance with organizational efforts aimed at enhancing environmental values and embedding sustainability in their strategies and operations. This allows financial institutions to improve their sustainability rating and support the broader sustainable development and environmental targets.

Theoretical Implications

This research brings new ideas to the body of literature on sustainability and environmental management in multiple ways. First, it expands Institutional Theory by demonstrating that the impact of eco-regulatory compliance on the sustainability performance is directly mediated by the coercive institutional pressures, and indirectly through the internal institutionalization of environmental values – corporate green culture. The identification of corporate green culture as a partial mediator gives insights into how external regulatory requirements are being translated into improved sustainability performance and enhances the theoretical understanding of the mechanism that links environmental regulation with organizational performance.

Secondly, it fills the notable gap in the literature of sustainability in the Islamic banking sector. Although most studies have taken place in the manufacturing and non-financial sector, this study has demonstrated that the institutional logic of environmental compliance is also relevant to financial institutions. The conclusions reveal that the performance of Islamic banks in creating sustainable performance is better when environmental regulation is incorporated into the culture of Islamic banks as a routine rather than a compliance requirement. Therefore, the aim of this study is to expand the usage of the Institutional Theory in the field of sustainability studies in the financial services sector, particularly in emerging economies.

Practical Implications

The findings have some implications for the regulators and managers of Islamic banks. First, environmental compliance ought to be considered as a strategic competency and not just a compliance problem. Therefore, the bank's management has to complement compliance programs with internal tools that strengthen environmental principles, including the integration of environmental goals in organizational policies, leadership evaluation, training and development of employees and in their performance assessment systems. These internal mechanisms will more readily institutionalize environmental responsibility and improve sustainability performance.

Secondly, the regulators, particularly the State Bank of Pakistan (SBP), should have an awareness that regulatory instructions alone may not bring about the desired outcomes of sustainability. Besides the green banking regulations and guidelines on environmental risk management, the regulatory authorities should urge banks to build their internal organizational capabilities in sustainability, such as environmental awareness programs, structures of sustainability governance, and culture-oriented initiatives. This will boost the effectiveness of the Islamic banking industry's sustainability policies when they become embedded in the organization's culture.

This will enhance the effectiveness of the Islamic banking industry's sustainability policies once it becomes part of the organizational culture.

Last but not least, the top management should conceptualize the green culture as a strategic resource of the organization. The study's substantial mediating role suggests that investments in developing environmental values and organizational practices that are oriented toward sustainability will have an additional positive impact on the results of compliance with the regulations and will contribute to long-term environmental and organizational results.

Limitations and Future Directions

Although this study has contributed to the research field, there are some limitations, which are, therefore, opportunities for further research. First, this study made use of a cross-sectional research design, which does not permit the conclusions of causal relationships between the constructs. The proposed relationships are based on Institutional Theory and have empirical evidence, but further research with longitudinal designs should investigate the way in which eco-regulatory compliance and corporate green culture evolve and develop in the course of time and their influence on sustainability performance as a result of the changes in the regulatory environment.

Secondly, the study has concentrated on Islamic banks in Pakistan alone, and generalization of its outcomes with other banking systems or industries might not be possible. Future research may use the proposed model in traditional banks, extend the analysis to other financial sectors in emerging or developed economies to determine if the relationships extend to other sectors in different institutional environments, or replicate the model in conventional banks to compare Islamic and conventional financial institutions.

Thirdly, this study examined that corporate green culture is the central mediator between the eco-regulatory compliance and sustainability performance. Although the study is important, additional research could explore other organizational methods, like green innovation capability, environmental management systems, sustainable leadership, and environmental knowledge sharing, to gain deeper insight into the way regulatory compliance leads to sustainability outcomes.

Lastly, data were obtained from self-reported questionnaires with top and middle-level managers. While managerial respondents have the best opportunity to evaluate the practices of sustainability, future research should draw on multiple data sources, such as objective measures of sustainability, regulatory records, and archival environmental performance data, in order to further substantiate the findings and reduce the risk of common method bias.

References

- Abbas, J., & Khan, S. M. (2023). Green knowledge management and organizational green culture: an interaction for organizational green innovation and green performance. *Journal of Knowledge Management*, 27(7), 1852–1870. <https://doi.org/10.1108/JKM-03-2022-0156>
- Aggarwal, P., & Agarwala, T. (2021). Green Organizational Culture: An Exploration of Dimensions. *Global Business Review*. <https://doi.org/10.1177/09721509211049890>
- Alemu, B. A. (2025). Cultivating a Culture of Sustainability: The Role of Organizational Values and Leadership in Driving Sustainable Practices. *Business Ethics and Leadership*, 9(1), 79–94. [https://doi.org/10.61093/bel.9\(1\).79-94.2025](https://doi.org/10.61093/bel.9(1).79-94.2025)
- Aragón-Correa, J. A., Marcus, A. A., & Vogel, D. (2020). The effects of mandatory and voluntary regulatory pressures on firms' environmental strategies: A review and recommendations for future research. *Academy of Management Annals*, 14(1), 339–365. <https://doi.org/10.5465/annals.2018.0014>
- Aragón-Correa, J. A., & Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental strategy. *Academy of Management Review*, 28(1), 71–88. <https://doi.org/10.5465/AMR.2003.8925233>
- Awewomom, J., Dzeble, F., Takyi, Y. D., Ashie, W. B., Ettey, E. N. Y. O., Afua, P. E., Sackey, L. N. A., Opoku, F., & Akoto, O. (2024). Addressing global environmental pollution using environmental control techniques: a focus on environmental policy and preventive environmental management. In *Discover Environment* (Vol. 2, Issue 1, pp. 8-). Springer. <https://doi.org/10.1007/s44274-024-00033-5>
- Beddewela, E., & Fairbrass, J. (2015). Seeking Legitimacy Through CSR: Institutional Pressures and Corporate Responses of Multinationals in Sri Lanka. *Journal of Business Ethics* 2015 136:3, 136(3), 503–522. <https://doi.org/10.1007/S10551-014-2478-Z>
- Ben Khaled, W., & Gond, J. P. (2020). How do external regulations shape the design of ethical tools in organisations? An open polity and sociology of compliance perspective. *Human Relations*, 73(5), 653–681. <https://doi.org/10.1177/0018726719828437>
- Berrone, P., Fosfuri, A., Gelabert, L., & Gomez-Mejia, L. R. (2013). Necessity as the mother of “green” inventions: Institutional pressures and environmental innovations. *Strategic Management Journal*, 34(8), 891–909. <https://doi.org/10.1002/SMJ.2041>
- Burdon, W. M., & Sorour, M. K. (2020). Institutional Theory and Evolution of ‘A Legitimate’ Compliance Culture: The Case of the UK Financial Service Sector. *Journal of Business Ethics*, 162(1), 47–80. <https://doi.org/10.1007/s10551-018-3981-4>
- Chang, C. H., & Chen, Y. S. (2012). The determinants of green intellectual capital. *Management Decision*, 50(1), 74–94. <https://doi.org/10.1108/00251741211194886>
- Chen, Y. S. (2011). Green organizational identity: sources and consequence. *Management Decision*, 49(3), 384–404. <https://doi.org/10.1108/00251741111120761>
- Creswell, J. W., & Creswell, J. D. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications. <https://study.sagepub.com/creswellrd4e>
- Daily, B. F., Bishop, J. W., & Massoud, J. A. (2012). The role of training and empowerment in environmental performanceA study of the Mexican maquiladora industry. *International Journal of Operations & Production Management*, 32(5), 631–647. <https://doi.org/10.1108/01443571211226524>
- de Almeida Barbosa Franco, J., Franco Junior, A., Battistelle, R. A. G., & Bezerra, B. S. (2024). Dynamic Capabilities: Unveiling Key Resources for Environmental Sustainability and Economic Sustainability, and Corporate Social Responsibility towards Sustainable Development Goals. *Resources*, 13(2), 22. <https://doi.org/10.3390/resources13020022>
- Delmas, M. A., & Toffel, M. W. (2008). Organizational responses to environmental demands: Opening the black box. *Strategic Management Journal*, 29(10), 1027–1055. <https://doi.org/10.1002/smj.701>
- Dimaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), 147–160. <http://www.jstor.org/stable/2095101>

- Doghan, M. A. A., Abdelwahed, N. A. A., Soomro, B. A., & Alayis, M. M. H. A. (2022). Organizational Environmental Culture, Environmental Sustainability and Performance: The Mediating Role of Green HRM and Green Innovation. *Sustainability*, 14(12), 7510. <https://doi.org/10.3390/su14127510>
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, 60(11), 2835–2857. <https://doi.org/10.1287/mnsc.2014.1984>
- Fang, L., Shi, S., Gao, J., & Li, X. (2022). The mediating role of green innovation and green culture in the relationship between green human resource management and environmental performance. *PLOS ONE*, 17(9), e0274820. <https://doi.org/10.1371/JOURNAL.PONE.0274820>
- Fietz, B., & Günther, E. (2021). Changing Organizational Culture to Establish Sustainability. *Controlling & Management Review*, 65(3), 32–40. <https://doi.org/10.1007/s12176-021-0379-4>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39. <https://doi.org/10.2307/3151312>
- Galleli, B., & Amaral, L. (2026). Bridging Institutional Theory and Social and Environmental Efforts in Management: A Review and Research Agenda. In *Journal of Management* (Vol. 52, Issue 1, pp. 42–93). SAGE Publications Inc. <https://doi.org/10.1177/01492063251322429>
- Gao, H., Al Mamun, A., Masukujjaman, M., & Yang, Q. (2025). Exploring the nexus of green human resource management, leadership and organizational culture on workplace pro-environmental behavior. *Humanities and Social Sciences Communications*, 12(1), 987-. <https://doi.org/10.1057/s41599-025-05071-9>
- Gelhard, C., & von Delft, S. (2016). The role of organizational capabilities in achieving superior sustainability performance. *Journal of Business Research*, 69(10), 4632–4642. <https://doi.org/10.1016/J.JBUSRES.2016.03.053>
- Gunarathe, A. D. N., Lee, K. H., & Hitigala Kaluarachchilage, P. K. (2021). Institutional pressures, environmental management strategy, and organizational performance: The role of environmental management accounting. *Business Strategy and the Environment*, 30(2), 825–839. <https://doi.org/10.1002/BSE.2656>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-80519-7>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- He, Q. (2025). The influence of organizational policies on firm environmental performance through sustainable technologies and innovation and stakeholder concerns. *Scientific Reports*, 15(1). <https://doi.org/10.1038/s41598-025-94499-9>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science* 2014 43:1, 43(1), 115–135. <https://doi.org/10.1007/S11747-014-0403-8>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Huynh, T. N., Nguyen, P. Van, Do, A. M., Dinh, P. U., & Vo, H. T. (2024). Fostering organizational performance through innovation: The roles of environmental policy instruments, organizational learning supports, and intellectual capital. *Heliyon*, 10(20), e39361. <https://doi.org/10.1016/j.heliyon.2024.e39361>
- Ismail, I. J. (2025). Transforming small business ventures for a greener tomorrow: the interplay between green transformational leadership, organizational green culture, and environmental sustainability. *Cogent Social Sciences*, 11(1). <https://doi.org/10.1080/23311886.2024.2441400>

- Jaganjac, B., Hansen, K. W., Lunde, H., & Hunnes, J. A. (2024). The role of organizational culture and structure in implementing sustainability initiatives. *Business Ethics, the Environment & Responsibility*. <https://doi.org/10.1111/BEER.12710>
- Javed, H., Du, J., & Farooq Islam, M. (2025). Unpacking organizational capabilities and green Innovation for sustainable Performance: The role of environmental regulations in manufacturing industry. *Journal of Cleaner Production*, 507, 145453. <https://doi.org/10.1016/J.JCLEPRO.2025.145453>
- Lee, C. C. (2017). Sustainable advantage: Accelerating from regulatory compliance to environmental sustainability. *International Journal of Environmental Sustainability*, 13(2), 37–44. <https://doi.org/10.18848/2325-1077/CGP/v13i02/37-44>
- Li, C., Aziz, F., Asim, S., Shahzad, A., & Khan, A. (2023). Employee green behavior: a study on the impact of corporate social responsibility (CSR) on employee green behavior, green culture: the moderating role of green innovation. *Environmental Science and Pollution Research*, 30(48), 105489–105503. <https://doi.org/10.1007/s11356-023-29798-7>
- Lin, Z., Gu, H., Gillani, K. Z., & Fahlevi, M. (2024). Impact of Green Work–Life Balance and Green Human Resource Management Practices on Corporate Sustainability Performance and Employee Retention: Mediation of Green Innovation and Organisational Culture. *Sustainability*, 16(15), 6621. <https://doi.org/10.3390/su16156621>
- Meyer, J. W., & Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology*, 83(2). <https://doi.org/10.1086/226550>
- Muralidhar, L. B., Lakshmi, K. V. N., Swapna, H. R., Rupani, J., Nethravathi, K., Pandey, B. K., & Pandey, D. (2024). Impact of Organizational Culture on The Level of Corporate Social Responsibility Investments: An Exploratory Study. *Circular Economy and Sustainability 2024* 4:3, 4(3), 2267–2285. <https://doi.org/10.1007/S43615-024-00371-9>
- Nitzl, C., Roldan, J. L., & Cepeda, G. (2016). Mediation analysis in partial least squares path modeling. *Industrial Management & Data Systems*, 116(9), 1849–1864. <https://doi.org/10.1108/IMDS-07-2015-0302>
- Noor Faezah, J., Yusliza, M. Y., Ramayah, T., Teixeira, A. A., & Alkaf, A. R. (2024). Mediating role of green culture and green commitment in implementing employee ecological behaviour. *Journal of Management Development*, 43(3), 253–282. <https://doi.org/10.1108/JMD-08-2023-0258>
- Opoku, R. K. (2025). Championing green sustainability in manufacturing of a developing economy: implications for sustainable performance through eco-regulatory compliance. *International Journal of Productivity and Performance Management*. <https://doi.org/10.1108/IJPPM-06-2024-0408>
- Palthe, J. (2014). Regulative, Normative, and Cognitive Elements of Organizations: Implications for Managing Change. *Management and Organizational Studies*, 1(2). <https://doi.org/10.5430/mos.v1n2p59>
- Porter, M. E., & Van Der Linde, C. (1995). Toward a New Conception of the Environment-Competitiveness Relationship. *Journal of Economic Perspectives*, 9(4), 97–118. <https://doi.org/10.1257/jep.9.4.97>
- Qalati, S. A., Barbosa, B., & Ibrahim, B. (2025). Factors influencing employees' eco-friendly innovation capabilities and behavior: the role of green culture and employees' motivations. *Environment, Development and Sustainability*, 27(9), 21227–21248. <https://doi.org/10.1007/s10668-023-03982-8>
- Roscoe, S., Subramanian, N., Jabbour, C. J. C., & Chong, T. (2019). Green human resource management and the enablers of green organisational culture: Enhancing a firm's environmental performance for sustainable development. *Business Strategy and the Environment*, 28(5), 737–749. <https://doi.org/10.1002/BSE.2277>
- Sarwar, Z., Song, Z. H., Ali, S. T., Khan, M. A., & Ali, F. (2025). How organizational rationale drives sustainable performance: the roles of green culture and environmental regulations. *Sustainability Accounting, Management and Policy Journal*, 1–28. <https://doi.org/10.1108/SAMPJ-06-2024-0539>

- Saunders, M. A., Lewis, P., & Thornhill, A. (2019). Research Methods for Business Students. In *Research Methods for Business Students* (8th ed., Issue March 2023). Pearson.
- Scott, W. R. (2014). *Institutions and Organizations Ideas, Interests, and Identities* (4th ed.). Thousand Oaks, CA: Sage Publishing.
- Shahzad, M. A., Jianguo, D., & Junaid, M. (2023). Impact of green HRM practices on sustainable performance: mediating role of green innovation, green culture, and green employees' behavior. *Environmental Science and Pollution Research*, 30(38), 88524–88547. <https://doi.org/10.1007/S11356-023-28498-6>
- Subramanian, N., & Suresh, M. (2023). Green organizational culture in manufacturing SMEs: an analysis of causal relationships. *International Journal of Manpower*, 44(5), 789–809. <https://doi.org/10.1108/IJM-09-2021-0557>
- Testa, F., Iraldo, F., & Daddi, T. (2018). The Effectiveness of EMAS as a Management Tool: A Key Role for the Internalization of Environmental Practices. *Organization and Environment*, 31(1), 48–69. <https://doi.org/10.1177/1086026616687609>
- Truong, B. T. T., Nguyen, P. Van, Vrontis, D., & Ahmed, Z. U. (2024). Unleashing corporate potential: the interplay of intellectual capital, knowledge management, and environmental compliance in enhancing innovation and performance. *Journal of Knowledge Management*, 28(4), 1054–1073. <https://doi.org/10.1108/JKM-05-2023-0389>
- United Nations. (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda>
- Wang, C. H. (2019). How organizational green culture influences green performance and competitive advantage: The mediating role of green innovation. *Journal of Manufacturing Technology Management*, 30(4), 666–683. <https://doi.org/10.1108/JMTM-09-2018-0314>
- Wang, H. K., Tseng, J. F., & Yen, Y. F. (2014). How do institutional norms and trust influence knowledge sharing? An institutional theory. *Innovation*, 16(3), 374–391. <https://doi.org/10.1080/14479338.2014.11081994>
- Xu, X., Wang, S., Li, J., & Qiao, T. (2024). Environmental regulatory intensity, green finance and corporate green sustainable development performance. *Heliyon*, 10(9), e30114. <https://doi.org/10.1016/j.heliyon.2024.e30114>
- Yong, J. Y., Yusliza, M. Y., Ramayah, T., & Fawehinmi, O. (2019). Nexus between green intellectual capital and green human resource management. *Journal of Cleaner Production*, 215, 364–374. <https://doi.org/10.1016/J.JCLEPRO.2018.12.306>
- Zaidi, S. Y. A., Aslam, M. F., Mahmood, F., Ahmad, B., & Tasaddque, S. (2025). Accomplishing the SDGs Through Green HRM Practices: Insights From Industrial Sustainability Experts. *Global Business and Organizational Excellence*, 44(5), 19–45. <https://doi.org/10.1002/JOE.22294>