

## INTEGRATING ISLAMIC ETHICAL PRINCIPLES INTO SUSTAINABLE CONSTRUCTION MANAGEMENT: EVIDENCE FROM THE CONSTRUCTION SECTOR OF LAHORE, PAKISTAN

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### **Abstract**

*To reduce environmental degradation and enhance efficiency of resources in the rapidly expanding urban centres, there is need to have sustainable construction management. The paper explores how the Islamic ethical principles can enhance the sustainability of the construction industry within the construction industry of Lahore, Pakistan. It lays stress on the main principles which include responsible use of the resources, social responsibility, accountability and environmental stewardship which are based on the Islamic teachings. Quantitative research design was taken, and data was gathered through a structured questionnaire on 205 construction professionals among contractors, architects, engineers, and project managers who were involved in residential projects. Structural Equation Modeling (SEM) using SmartPLS software was used to analyze the data collected in order to investigate the interrelationship between the variables. The results suggest that the Islamic ethical principles play a crucial positive role in the sustainable construction management practice, which fosters environment-friendly behavior. The paper draws a conclusion that the incorporation of ethical values in construction management can help in promoting long-term sustainability and improvement of environmental performance of the construction industry.*

**Keywords:** *Islamic ethics, sustainable construction management, environmental responsibility, SmartPLS, construction industry, Pakistan and sustainability.*

### **Introduction**

The construction business is a crucial sector of the economic growth and urbanization but also of the biggest causes of environmental degradation, resources exploitation, and energy waste all over the planet. The high rate of urbanization especially in the developing nations like Pakistan has greatly escalated the rate of construction works leading to over exploitation of natural resources and this creates more pressures on the environment. This is why sustainable construction management has become a significant strategy to cope with these issues to facilitate the effective use of the resources, their environmental impact reduction, and socio-economic benefits in the long term (Yaman and Abd Ghadas, 2022). Sustainable construction is not merely interested in environmental conservation but also encompasses economic and social responsibility, and is a comprehensive practice which is related to development.

Over the past few years, the sustainability notion has been given a lot of consideration in construction management owing to its correspondence with international programs like the Sustainable Development Goals (SDGs). The construction industry is associated with a great amount of energy use, greenhouse gas emissions, and waste production, and it is important to implement all the sustainable activities during the lifecycle of buildings constructions (Bashir et al., 2024). Some of the approaches to sustainable construction are to use eco-friendly materials, efficient designs, waste minimisation plans as well as environmentally friendly project management methods. Although the awareness has increased, sustainable practices in developing nations have not been adopted much because of a number of challenges including ignorance, ineffective rules and regulations, and absence of ethical issues consideration in the construction practice.

Ethics is a key determinant in the responsible behavior of the construction industry. Ethical practices also affect the decision making process, the use of resource and the relationship among the stakeholders, which eventually affect the sustainable construction projects. In this respect, the incorporation of ethical frameworks into the management of construction can also have a very positive influence on the usage of sustainable practices. Islamic ethical principles are also among other ethical systems and it is a value-based and holistic approach to ethics which highlights on justice, responsibility, social good, and environmental stewardship. These values are entrenched in the Quran and Sunnah teachings that give direction of the responsible human conduct in all spheres of life, including economic and environmental operations (Sami & Rahim, 2017). The notion of humans being stewards (khalifah) of the Earth is emphasized by the Islamic teachings, and humans have a duty to take care of the Earth and manage natural resources in a balanced and sustainable way. This idea has created an ethical imperative of not wasting resources but of ensuring conservation and fair allocation of resources. Sustainability is directly connected to the principle of stewardship because it motivates individuals and organizations to embrace eco-friendly business practices to protect the interests of the future generations (Bsoul et al., 2022). Also, the ethics of the Islamic world focus on moderation, ban on harm, and responsibility (hisab) that in the aggregate serve the goals of sustainable development.

Islamic ethical principles as far as their relevance to sustainability is concerned have been progressively identified in the literature. According to scholars, Islam worldviews can offer an excellent platform of sustainable development as it merges environmental, social, and economic aspects into a moral and spiritual context (Al-Jayyousi et al., 2022). Islamic views of sustainability are based on ethical responsibility and future welfare of the society compared to traditional sustainability models, which mainly dwell on technical and economic factors. Such holistic approach has the potential of supporting the creation of a sustainable construction practice that is not only efficient but also socially just and ethically sound. The built environment is one aspect in which the Islamic teachings have in the past played a role in shaping architectural and urban planning concepts that focus on being harmonious with the environment, welfare of the community, and resource conservation. Examples of traditional Islamic design include the successful application of natural ventilation, design responsive to climate, and materials sourced locally; this shows a profound concept of sustainability way before the modern green buildings came into being (Kamal et al., 2025). The proposed practices demonstrate how Islamic ethical and design principles can be employed to deal with modern environmental issues in the construction industry.

Although Islamic ethics and sustainability are theoretically suitable, no empirical studies have explored ways of integrating the two principles into the current construction management practices especially in developing nations like Pakistan. Lahore construction industry is one of the most rapidly developing urban centers in Pakistan that encounters serious challenges associated with the destruction of nature, poor resource utilization, and unbearable planning. The rapid urbanization has resulted in high levels of energy use, waste, and environmental pollution which has necessitated the dire need to promote sustainable construction methods. Moreover, the construction sector of Pakistan is very much prone to working under the framework where the primary aim is maximization of costs and short-term profitability, rather than long-term sustainable performance. This is not only destroying the environmental protection but also the quality and durability of the construction projects. Considering ethical concerns, especially those based on Islamic teachings, may be an important factor in changing the construction practices through encouraging responsible practices by the industry professionals. The ethical principles of honesty, accountability, and social responsibility may be used to determine the decision-making process and promote the implementation of sustainable practices in construction management.

Sustainable construction management is a process that entails incorporation of principles of sustainability in the entire construction project planning, designing, implementation and even maintenance of the building. Some of the benefits of an effective sustainable project planning are that environmental considerations have been integrated in the decision-making processes that yields better performance of the project and less impact on the environment (Ali et al., 2025). Nevertheless, to be sustainable in construction, it takes more than technical solutions; it should be a change of mindset and behavior of the stakeholders, and this can be supported by ethical frameworks. The Islamic ethics give a special chance to overcome the existing gap between sustainability and human actions through supporting the values that help to use the resources in the most responsible manner and to protect the environment. As an example, waste (israf) prohibition can be used to motivate people not to overuse available resources and the idea of trust (amanah) can be used to make people act in the best interest of the society and environment. The principles can be effectively incorporated into construction management practices to improve the results of sustainability.

Furthermore, incorporation of Islamic ethics in construction management is in line with the socio cultural environment of Pakistan where the Islamic ethics is relevant in determining the behavior of people and organisations. Sustainable construction projects can be more effective and acceptable by including culturally practical concepts of ethics. This will not only increase environmental sustainability but also improve social bond and morality in the construction industry. The proposed research will address the issue of how Islamic ethical values could be used to advance sustainable construction management in Lahore, Pakistan. It aims at exploring the impact of ethical values on the actions of construction professionals and their role in helping make decisions that are environmentally responsible. Through the application of the quantitative research approach and the application of sophisticated analytical tools like Structural Equation Modeling (SEM), the research offers empirical research on the correlation between Islamic ethics and sustainable construction practices.

The current study is relevant to existing literature since it introduces a new approach to sustainable construction management, which is the concept of Islamic ethics. It seeks to fill the void between theory and practice by looking at how ethical principles are applied in the construction industry in practice. Also, the research provides significant implications to the policy makers, industry players

and scholars through the emphasis on the need to incorporate ethical principles in the sustainability models. To sum it up, the sustainable construction management is critical in order to ensure that the environmental and socio-economic challenges of the rapid urbanization are met. Although technical solutions are not unimportant, ethical principles should also be incorporated to attain long-term sustainability. The Islamic codes of ethics provide an all-inclusive guideline that supports accountable conduct, environmental management, and social equality. With a combination of these values in the construction management, there is an opportunity to come up with a more sustainable and ethically based construction industry. This research is, hence, a valuable contribution to the knowledge and advocacy of Islamic ethics in the sustainable construction management of the area of Lahore, Pakistan.

### **Literature Review**

Sustainable construction management has become a very important field of study considering the growing environmental, economic, and social issues that are connected with the rapid urbanization. It is well-known that the construction industry is one of the most intense consumers of natural resources and the situation that contributes to the environmental decline significantly, such as carbon emissions, waste production, and energy consumption. To address these challenges, the notion of sustainability has been incorporated in the construction management practices in an effort to develop a sustainable development that is environmentally responsive, economically viable and socially inclusive. Sustainable construction literature cites the need to use an integrated strategy that harmonizes these three aspects commonly known as the triple bottom line (Ullah et al., 2020). Sustainable construction management is defined as the process of implementing greener practices in the lifecycle of a construction process which include planning, design, construction, operation, and demolishing of the construction. It has been highlighted by researchers that sustainability in construction extends beyond aspects of the environment to social equity and economic efficiency. Nonetheless, researches have shown that sustainable practices have not been implemented in the developing nations because of the lack of awareness, weak implementation of the regulations, and the financial limitations. Among large construction companies in Pakistan, as one example, their degree of sustainability commitment can be observed the lowest, whereas environmental factors are given more focus than social sustainability (Ullah et al., 2020).

There is an increasing level of literature that indicates that technical solutions cannot alone make sustainability in construction a reality. Rather, ethical and behavioral aspects need to be introduced in the construction management procedures. Ethics is important to affect decision making processes, organizational culture and to encourage the stakeholders to be responsible. The construction professionals can also be informed by ethical considerations to make decisions that would not focus on short-term benefits but on long-term sustainability. This view supports the stakeholder theory, which advocates that the interest of all stakeholders (both the environment and the society) should be looked into during business decision making. In this respect, the Islamic moral laws provide a holistic system which unites moral, social and environmental accountabilities. The Quran and Sunnah provide the basis of Islamic ethics and they include such values as justice (adl), trust (amanah), accountability (hisab) and moderation (wasatiyyah). These values offer a guide to ethical conduct on any front of life including in economic and environmental life. Sami and Rahim (2017) affirm that Islamic ethics are closely connected to construction activities as the Islamic ethics stress honesty, fairness, and responsibility in implementing projects, which enhances the overall performance of the project.

Among the most significant ideas of Islamic ethics, there is the concept of stewardship (khalifah), according to which humans are stewards of the Earth. This idea highlights the need to carefully use the natural resources without engaging in activities that destroy the environment. The stewardship principle is effectively consistent with the aims of sustainable development since it advances conservation, efficiency of the resources and equity between generations. Also, the ban on waste (israf) and the focus on balance (mizan) contribute more to the significance of sustainable resource management in Islamic doctrines. The connection between Islam ethics and sustainability is a topic that has been intensively discussed in the recent literature. In a systematic review, Al-Jayyousi et al. (2022) identified several characteristics of Islamic sustainability models that are mostly moral-focused, mission-focused, and people-focused and placed an emphasis on the importance of embedding ethical values in development practices. Such models emphasise that economic activities should be linked to ethical and social goals, which in turn should encourage a more sustainable perspective. The review also indicates that Islamic perspectives on sustainability extend beyond environmental concerns to include social justice, poverty alleviation, and community development.

Empirical research has also proved that Islamic ethical values have a positive role in the performance of sustainability. As an example, studies on Islamic work ethics have revealed that ethical values would be able to contribute to organizational performance and sustainability by either changing the behavior of employees or their decision making. A study conducted by Asha'ari et al. (2023) revealed that Islamic work ethics moderately mediate the association between sustainable design and social sustainability performance, implying that ethical values could be used to enhance the efficacy of various sustainable practices. The result indicates that ethical considerations should be incorporated into sustainability models to produce improved results. Correspondingly, research on Islamic entrepreneurship has revealed that sustainable innovation and development could be caused by ethical principles founded on Maqasid al-Shariah. Abbas et al. (2025) discovered that value-based innovation based on Islamic principles plays a significant role in ensuring economic, social and environmental sustainability especially when founded on high ethical commitment. These results imply that Islamic ethics could be a strong source of sustainability in most sectors including the construction industry.

Religiosity has been determined to play a significant role in determining sustainable behavior in the Pakistani setting. It has been shown that the higher the religious commitment a person has, the more he/she will be inclined to practice environmental responsibility, i. e. energy conservation, recycling, and sustainable consumption. The most recent study conducted by means of SmartPLS analysis revealed that religiosity has a positive impact on sustainable consumption behavior of Muslim consumers in Pakistan, which demonstrates the significance of ethical and religious values in advancing sustainability. This fact substantiates the thesis according to which the implementation of Islamic ethical principles into the construction administration can contribute to the increase in the number of sustainable practices. Although there is increased appreciation of the role of Islamic ethics in sustainability, only a limited research has been done on the construction industry. The main areas that most studies have focused on include finance, tourism, and entrepreneurship, which creates a gap in the knowledge of how Islamic principles of ethics can be applied in construction management. In this regard, the gap is wide when considered in developing nations such as Pakistan where the construction sector is a vital part of economic development and is experiencing major sustainability issues.

Another aspect of the literature that underscores the need to use modern analysis methods is the need to investigate the connection between the sustainability outcomes and ethical principles. The use of Structural Equation Modeling (SEM) and especially, Partial Least Squares (PLS-SEM) has become very popular in recent research, as it can be used to analyze complex models and a small sample size. PLS-SEM enables authors to examine numerous connections at the same time and examine how the latent constructs influence the sustainability consequences. As an illustration, a study by Pak-Rais et al. (2017) has managed to study the influence of religiosity and ethical values on sustainability using SmartPLS, and this study proves that the approach is effective in the study of complex behavioral patterns. Also, institutional efforts to incorporate Islamic ethical principles into sustainability measures have been facilitated by institutional efforts like the Islamic Reporting Initiative (IRI), which offers principles of environmental, social, and governance (ESG) reporting incorporated in terms of Islamic values. These activities are meant to enhance transparency, accountability and ethical responsibility in organizational practices and this will help in sustainable development. The IRI framework also highlights the need to consider both business operations and ethical and social goals, which is why Islamic ethics will be relevant in the contemporary sustainability framework.

In addition, the general body of literature on sustainability suggests that moral and ethical issues are vital in the realization of long-term environmental and social objectives. Sustainability issues cannot be tackled solely through technical and regulatory means since they are not always effective in changing the human decision-making and behavior. On the other hand, ethical frameworks can be used to offer intrinsic motivation towards sustainable behavior by attracting people to values and beliefs. This view is especially applicable within the realm of Islamic societies whereby religious values are very instrumental in the determination of behavior. The introduction of Islamic ethics in the construction management is also in same line with corporate social responsibility (CSR) which emphasises on the significance of ethical conduct, social well being and environmental preservation in business. Islamic CSR is more comprehensive than traditional CSR, that is, it incorporates spiritual and moral aspects hence facilitating a holistic perspective of sustainability. This strategy drives organizations to look at the overall effects of their operations in the society and environmental context instead of focusing on financial performance.

The other notable feature of the literature is the influence of culture and context in the development of the sustainability practices. The research indicated that when local cultural and religious values are taken into consideration, sustainability initiatives work better. In Pakistan, where Islamic faith is a major way of defining the social normative and social behavior, incorporation of Islamic ethical values into construction management would result in more acceptance and effectiveness of sustainable practices. Such a culturally based practice would assist others in eliminating obstacles to sustainability implementation and encourage a more responsible attitude among the building industry practitioners. Nonetheless, there are still a number of challenges in the application of Islamic ethical principles in construction management in spite of the potential benefits. They are a lack of awareness of the industry professionals, scanty empirical evidence, and an absence of clear guidelines on how ethical principles in building practices can be implemented. Also, profit-based methods that prevail in the construction sector tend to jeopardize the ability to embrace sustainability and ethical conduct.

Conclusively, the literature goes ahead to emphasize the significance of incorporating ethical principles into sustainable management of construction in order to deal with environment and social challenges related to the construction industry. Islamic principles of ethics offers a universal

roadmap that goes in line with the goal of sustainability, which focuses on responsibility, accountability, and environmental ethics. Empirical results point to the possibility that ethical values can have a distinct effect on sustainability behavior and positively impact the success of sustainability programs. Nevertheless, additional studies are required to examine how these principles are used in the construction industry especially in developing nations like Pakistan. This paper will fill this gap by exploring the issues of how Islamic ethics can be applied to support sustainable construction management practices in Lahore, Pakistan. Offering empirical data on the connection between ethics and sustainability, the study adds to the existing literature on the topic of sustainable development and provides useful information to policymakers and industry professionals.

**H1:** Islamic ethical principles positively influence the adoption of sustainable construction management practices in the construction sector of Lahore, Pakistan.

**H2:** Islamic ethical principles positively impact the environmental responsibility of construction professionals in Lahore, Pakistan.

**H3:** Sustainable construction management practices mediate the relationship between Islamic ethical principles and environmentally responsible construction behavior in Lahore, Pakistan.

### Methodology

The research design used in this study was a quantitative study to investigate the impact of Islamic ethics on sustainable construction management and environmental friendly practices in the construction industry of Lahore, Pakistan. Quantitative techniques are especially useful, in particular, to test the connections between constructs and to offer the empirical data in order to prove the theoretical models (Creswell and Creswell, 2017). The structured questionnaire was used to collect the data that was aimed at capturing the perceptions and practices of construction professionals including contractors, architects, engineers, and project managers with respect to ethical principles, sustainable construction practices, and environmentally responsible behavior. The questionnaire questions were also based on the previously explored and validated instruments in the field of Islamic ethics and sustainability (Asha'ari et al., 2023; Sami and Rahim, 2017). The purposive sampling methodology was used to choose the respondents who had actively participated in residential construction projects in Lahore. This would have guaranteed that the respondents possessed relevant knowledge and experience in giving the relevant information concerning construction practices and ethical behavior (Etikan et al., 2016). The sample size was adequate to analyze the research using structural equations modeling (SEM) since it is recommended that 205 responses are minimum in order to have adequate PLS-SEM outcomes (Hair et al., 2021).

The data gathered were processed with the help of Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. PLS-SEM should be used in complex model studies to explore data, where numerous latent variables in different directions can be estimated and the small to medium sample size can be employed (Hair et al., 2021). The analysis comprised two parts: the measurement model was tested to evaluate its reliability and validity, i.e., composite reliability, Cronbach alpha, convergent and discriminant validity, and the structural model was tested to test the hypothesized relationships based on the path coefficients, t-values, and significant levels obtained by bootstrapping with 5000 resamples (Hair et al., 2021). Additional measures taken to control perceived common method bias were the single-factor test of Harman and anonymity of the respondents in line with mitigating the effects of social desirability (Podsakoff et al., 2003). Research ethics were adhered to during the research, such as the informed consent of

the participants and the promise of data confidentiality, which are in accordance with the general research ethics requirements (Resnik, 2018). In general, the given methodology is a strong and credible way of exploring the role of Islamic ethical concepts in encouraging sustainable construction management and eco-friendly behavior by offering empirical data, which can be used not only in future academic studies but also in the practical application of the policies in the Lahore construction sector in Pakistan.

### Data Analysis and Results

The data obtained of 205 construction professionals was analyzed with the help of the Partial Least Squares Structural Equation Modeling (PLS-SEM) and the SmartPLS software. It is a suitable method to examine difficult models and to test the association between latent constructs, especially when conducting an exploratory research project (Hair et al., 2021). Two phases of analysis were performed: (1) the assessment of the measurement model to determine the reliability and validity, and (2) the assessment of the structural model to verify the hypotheses put forward.

Reliability Analysis: Cronbachs Alpha (CA) and Composite Reliability (CR) was used to test reliability. Hair et al. (2021) suggest that values of above 0.70 are acceptable.

**Table 1: Reliability Analysis**

Construct	Cronbach's Alpha	Composite Reliability (CR)
Islamic Ethical Principles (IEP)	0.872	0.903
Sustainable Construction Management (SCM)	0.885	0.915
Environmental Responsibility (ER)	0.861	0.898

The results show that all constructs exceed the recommended threshold of 0.70, confirming internal consistency reliability (Hair et al., 2021).

**Convergent Validity:** Convergent validity was evaluated using Average Variance Extracted (AVE) and factor loadings. AVE values should be greater than 0.50, indicating that constructs explain more than half of the variance of their indicators (Fornell & Larcker, 1981).

**Table 2: Convergent Validity**

Construct	AVE
Islamic Ethical Principles (IEP)	0.651
Sustainable Construction Management (SCM)	0.683
Environmental Responsibility (ER)	0.639

All AVE values are above 0.50, confirming adequate convergent validity.

### Discriminant Validity

Discriminant validity was assessed using the Fornell-Larcker criterion, where the square root of AVE should be higher than inter-construct correlations (Fornell & Larcker, 1981).

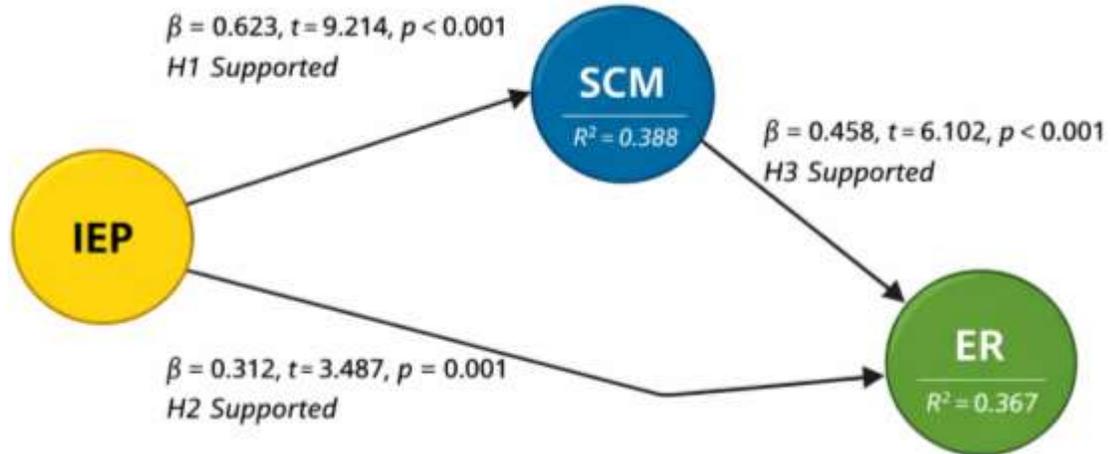
**Table 3: Discriminant Validity**

Construct	IEP	SCM	ER
IEP	0.807		
SCM	0.612	0.826	
ER	0.584	0.671	0.799

The diagonal values (square root of AVE) are greater than the corresponding correlations, confirming discriminant validity.

### Structural Model Evaluation

After establishing the reliability and validity of the measurement model, the structural model was evaluated using path coefficients ( $\beta$ ), t-values, and p-values obtained through bootstrapping with 5000



resamples (Hair et al., 2021).

**Figure4.1: Structural Model**  
**Table 4: Hypothesis Testing Results**

Hypothesis	Relationship	$\beta$	t-value	p-value	Result
H1	IEP → SCM	0.623	9.214	0.000	Supported
H2	IEP → ER	0.312	3.487	0.001	Supported
H3	SCM → ER	0.458	6.102	0.000	Supported

The results indicate that Islamic Ethical Principles (IEP) have a strong and significant positive impact on Sustainable Construction Management (SCM) and a moderate but significant impact on Environmental Responsibility (ER). Additionally, SCM significantly influences ER, supporting the mediating role proposed in the study.

**Coefficient of Determination ( $R^2$ ):** The  $R^2$  value measures the explanatory power of the model. According to Hair et al. (2021), values of 0.25, 0.50, and 0.75 indicate weak, moderate, and substantial explanatory power, respectively.

**Table 5:  $R^2$  Values**

Endogenous Construct	$R^2$ Value
Sustainable Construction Management (SCM)	0.388
Environmental Responsibility (ER)	0.521

The  $R^2$  value for SCM (0.388) indicates moderate explanatory power, while ER (0.521) shows strong explanatory power, suggesting that the model explains a substantial portion of variance in environmental responsibility.

### Effect Size ( $f^2$ )

Effect size ( $f^2$ ) was calculated to assess the impact of each exogenous construct on endogenous constructs.

**Table 6: Effect Size ( $f^2$ )**

Relationship	$f^2$ Value	Effect Size
IEP → SCM	0.635	Large
IEP → ER	0.142	Small
SCM → ER	0.298	Medium

These results indicate that Islamic ethical principles have a strong effect on sustainable construction management and a smaller direct effect on environmental responsibility, while SCM has a moderate effect on ER.

### **Predictive Relevance ( $Q^2$ )**

The Stone-Geisser  $Q^2$  value was used to assess predictive relevance using blindfolding procedures. Values greater than zero indicate predictive relevance (Hair et al., 2021).

**Table 7:  $Q^2$  Values**

Construct	$Q^2$ Value
Sustainable Construction Management (SCM)	0.241
Environmental Responsibility (ER)	0.318

The  $Q^2$  values confirm that the model has adequate predictive relevance.

The SmartPLS analysis demonstrates that all proposed hypotheses are supported. Islamic ethical principles significantly influence sustainable construction management and environmental responsibility. Moreover, sustainable construction management plays a crucial role in enhancing environmentally responsible behavior, indicating its mediating importance. These findings highlight the significance of integrating ethical values into construction practices to achieve sustainability goals.

### **Discussion**

The results of the research are well empirically valid in reference to the high role of Islamic ethical principles in ensuring sustainable building management and green practices in the construction industry in Lahore, Pakistan. The findings show that the Islamic ethical principle affects the sustainable construction management practice directly and positively, which aligns with the previous research stating the necessity of ethical frameworks to govern sustainable conduct (Al-Jayyousi et al., 2022; Sami and Rahim, 2017). These results support the claim that religious based ethical values can be a potent source of sustainability, especially in those cases when religion is the core of people and organizations behavior. The substantial connection between Islamic moral codes and sustainable construction management (H1) implies that such values as the stewardship (khalifah) accountability (hisab) and moderation (wasatiyyah) may foster the use of environmentally friendly and resource-efficient approaches by the construction professionals. This is similar to the efforts of (Bsoul et al., 2022) who emphasized that Islamic doctrines encourage the protection of the environment and the use of resources in a way that is responsible. The results also correlate with the sustainability literature, in general, where ethical concerns are crucial to attainment of long-term environmental and social objectives (Ullah et al., 2020).

Moreover, the fact that Islamic ethical principles also have a positive effect on environmental responsibility (H2) shows that ethical values can affect the actions of individuals outside the organization. With Islamic ethical conduct, the construction professionals will exercise greater likelihood of taking environmentally friendly measures including minimizing wastes, conserving resources and use of sustainable construction methods. This aligns with the existing literature that

has shown that the concept of religiosity and ethical values has a significant impact on pro-environmental behavior (Asha'ari et al., 2023). The findings demonstrate the significance of incorporating ethical awareness and education in construction management and enhancing it in order to encourage sustainable conduct among individuals. The results also affirm to the importance of the sustainable construction management to the improvement of environmental responsibility (H3). The fruitful correlation between sustainable construction practices and environmental results gives reason to conclude that the use of sustainability-driven policies, including efficient resources management and eco-friendly construction policies, results in the enhancement of environmental performance. The finding is in line with the existing literature that highlights the role of sustainable project management in minimizing environmental impact (Ali et al., 2023). In addition, the mediating factor of sustainable construction management shows that no matter how ethical principles are, it should be converted into practice by using effective management practices.

The research adds value to the body of literature since it presents empirical evidence regarding the incorporation of the Islamic ethical principles into sustainable construction management, which has been poorly covered in other studies. Although previous researchers have studied the connection between Islamic ethics and sustainability in other sectors e.g. finance and entrepreneurship, this study expands the discussion to the construction industry especially in a developing economy set-up. The conclusions also demonstrate the significance of cultural and religious background in determining the sustainability practices, a fact that confirms the view that sustainability efforts should be more efficient when adhering to local values and beliefs. Moreover, the SmartPLS, PLS-SEM, offers a methodologically powerful approach because it enables the researchers to study a complicated relationship between the ethical principles, management practices, and the results of environmental impact. The findings indicate that not only Islamic concept of ethics directly affects environmental responsibility, but it also indirectly affects it due to sustainable construction management with the main focus on holistic approach to sustainability.

### **Conclusion**

This research intended to investigate how Islamic ethics can be utilized to enhance sustainable management of construction and environmentally friendly practices in construction industry in Lahore, Pakistan. The results can be clearly taken as good indicators that Islamic ethical principles play an important role in sustainable construction management and environmental responsibility. The research also establishes that the role played by the sustainable construction management in the mediation of ethical values into actual sustainability performance is real. The findings point to the relevance of considering ethical issues in construction management activities to contribute to the long-term sustainability. The principles of Islamic ethics provide a holistic approach that has focused on responsibility, accountability, and environmental management, and therefore, it is very applicable in dealing with the sustainability issues that affect the construction sector. The realization of a solution to the challenge of the industry professionals being more responsible and sustainable in their construction practices can be achieved by balancing the ethical values with the construction practices. The paper is relevant to the literature because it addresses the gap between the ethical theory and practice in the construction industry. It presents empirical evidence which proves that the Islamic ethical principles should be integrated in the sustainability framework especially in the developing countries. The research results are also informative to policymakers, industry practitioners, and researchers and show the necessity of implementing a value-based approach to sustainable construction management.

### Recommendations

In accordance with the results of the conducted study, the following recommendations can be offered in the form of practical and policy-related ones: First, construction companies are suggested to encompass Islamic ethical principles in their organizational policies and practices. This could be done by coming up with ethics that stresses on responsibility, accountability and stewardship of the environment. Ethical values should be included in organizational culture as they can persuade the employees to engage in sustainable practices and enhance the overall performance of the project (Sami & Rahim, 2017). Second, regulations should be formulated and implemented by policy makers which encourages sustainable construction practices but with consideration of ethics. The government bodies can be instrumental in promoting the use of eco-friendly methods of construction by offering incentives to eco-friendly projects in the form of tax breaks and subsidies. Enforcement deficiency, which tends to impede the sustainability process in developing nations, can also be managed through the reinforcement of regulatory frameworks (Ullah et al., 2020).

Third, Islamic ethics and sustainability ought to be integrated in construction management curriculum and training at the educational institutions and other professional bodies. The awareness of the significance of ethical values in sustainability can be increased to create a new generation of construction professionals who would be dedicated to environmentally friendly practices. Practical guidance on the way to introduce sustainable construction techniques can also be taught to the participants of the training programs. Fourth, the construction companies must embrace superior technologies and environmentally friendly practices including use of green building materials, designs that are energy efficient and waste management facilities. Although the basis of the process is moral guidelines, it is necessary to implement them by means of contemporary technologies to ensure the purpose of sustainability (Ali et al., 2025). Fifth, future research should explore additional factors that may influence sustainable construction practices, such as organizational culture, leadership styles, and regulatory frameworks. Longitudinal studies and comparative research across different regions can provide deeper insights into the role of ethics in sustainability. Finally, collaboration between industry stakeholders, government agencies, and academic institutions should be strengthened to promote sustainable construction practices. Such collaboration can facilitate knowledge sharing, innovation, and the development of effective strategies for integrating ethical principles into construction management.

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