

# The impact of innovation, corporate social responsibility, environmental practices, and organizational culture on organizational sustainability

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## Abstract

**Purpose:** This study analyzes how corporate social responsibility (CSR), innovation, and environmental policies influence organizational sustainability. It also examines how organizational culture mediates these factors to enhance overall performance.

**Research Methodology:** This study employed a quantitative research design and distributed structured questionnaires to employees and managers in various industries. The data were analyzed using Structural Equation Modeling (SEM) to assess the relationships between the independent variables (innovation, CSR, and environmental practices), mediating variable (organizational culture), and dependent variable (organizational sustainability).

**Results:** The findings show that Environmental practices, CSR, and innovation significantly improve organizational sustainability. The relationship between these independent variables and organizational performance was found to be mediated by organizational culture. In particular, a strong organizational culture amplifies the benefits of these factors on performance, indicating that cultivating a strong culture is essential for attaining sustainability.

**Contribution:** This study advances our understanding of organizational sustainability by presenting data on important factors and the mediating function of organizational culture. This provides practitioners and policymakers with helpful ideas on how to use these characteristics to enhance performance.

**Originality:** A comprehensive model of organizational sustainability was created by combining five independent, mediating, and dependent variables. It presents a fresh viewpoint on how internal variables amplify the influence of sustainability drivers by highlighting the function of organizational culture and offering a comprehensive strategy for enhancing sustainability.

**Keywords:** *Innovation, CSR, environmental practice, organizational culture*

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## 1. Introduction

Organizational sustainability is a multidimensional concept that encompasses an organization's social, environmental, and economic performance, among other aspects of its operations (Srisathan, Ketkaew, & Naruetharadhol, 2020). In recent years, growing environmental concerns, shifting consumer behavior, and the necessity for long-term viability have significantly heightened the awareness of sustainability in the business sector. This increased awareness necessitates that organizations recognize

and capitalize on the primary drivers of sustainability to effectively achieve their objectives within this complex landscape (Levesque & Wake, 2021). Innovation is a critical component of sustainability as highlighted by Dwivedi, Chaturvedi, and Vashist (2023). Innovation enables businesses to develop new products, services, and processes that not only reduce their environmental footprint but also yield superior societal outcomes. Creative innovation can help organizations lower costs, enhance customer satisfaction, and improve operational efficiency (Dani, Gandhi, & Sharma, 2023). Additionally, corporate social responsibility (CSR) plays a vital role in sustainability, requiring businesses to acknowledge and address its impacts on the environment and society. CSR initiatives may include philanthropic efforts, environmental conservation, and community engagement (Asiaei, Bontis, Barani, & Jusoh, 2021).

Environmental practices are crucial for business sustainability. These practices aim to reduce the environmental impact of business operations through measures such as waste reduction, energy efficiency, and sustainable supply chain management (Aghelie, 2017; Boeske, 2023). By integrating these practices, businesses can minimize their ecological footprint and contribute to broader environmental goals. Organizational culture is a key moderating factor in the effectiveness of sustainability drivers. The adoption and success of sustainable practices are heavily influenced by the prevailing culture within an organization. Culture shapes how employees perceive and engage in sustainability initiatives, potentially aiding or hindering their implementation (Isensee, Teuteberg, Griese, & Topi, 2020). Employees working in an environment that prioritizes sustainability are likely to feel a greater sense of accountability and more inclined to support and participate in sustainability efforts.

While the existing literature underscores the importance of integrating sustainability into business strategies, there remains a significant research gap regarding the practical methods by which organizations can embed sustainability into their core operations. This gap is particularly pronounced in organizations that lack the necessary resources and expertise to develop and implement comprehensive sustainability strategies. Moreover, although organizational culture is recognized as a critical driver of sustainability, there is limited research on how culture mediates the impact of innovation, CSR, and environmental practices on sustainability outcomes.

Based on the above explanation, we believe that organizational culuters can mediate the relationship among innovation, CSR, environmental practive, and organizational sustainability. Understanding the mediating role of organizational culture is essential for developing more effective sustainability strategies. By examining how culture influences the relationship between key sustainability drivers and organizational performance, this study provides valuable insights that can help organizations enhance their sustainability efforts. This understanding can guide organizations in fostering a culture that supports sustainability, thereby enabling them to achieve their sustainability goals more effectively.

## **2. Literature Review**

### ***2.1 Innovation and Organizational Culture***

Organizational culture is a critical component of organizational sustainability, and plays a pivotal role in driving innovation. Research has demonstrated that a culture that prioritizes and encourages innovation can significantly enhance creativity, risk taking, and experimentation among employees, all of which are essential for fostering innovation (Batool, Mohammad, Awang, & Ahmad, 2022). An innovative culture not only promotes the generation of fresh and creative solutions to sustainability challenges but also supports the continuous improvement of processes and products. This, in turn, helps organizations remain competitive and adapt to changing market demands and environmental conditions. Innovation is crucial for the advancement of sustainability within organizations. By fostering a culture that supports innovative thinking, organizations can develop solutions that address various sustainability issues, including environmental and social challenges. For example, research has shown that innovation can improve environmental performance through the development of cleaner technologies and more efficient processes. Additionally, innovation can contribute to waste reduction and enhanced energy efficiency, both of which are vital for minimizing the environmental impact of business operations (Singh, Singh, & Kumar, 2020).

Organizational culture not only influences innovation but also has a significant impact on overall sustainability. A strong organizational culture that emphasizes sustainability can lead to numerous benefits such as enhanced organizational reputation, improved environmental performance, and increased employee engagement. When sustainability is deeply embedded in organizational culture, employees are more likely to adopt sustainable practices and support the organization's sustainability goals (Crucke, Kluijtmans, Meyfrootd, & Desmidt, 2022). Moreover, the effectiveness of sustainability initiatives can be significantly enhanced through a well-structured process model to implement sustainability. This model involves the establishment of integrated cross-departmental sustainability management teams, which ensure that sustainability efforts are coordinated and supported across the entire organization. Identifying change agents within the organization can also play a crucial role in driving sustainability initiatives, as these individuals can champion sustainability efforts and motivate others to participate. Furthermore, providing additional funding and incentives can support the successful implementation of sustainability projects and initiatives (Kiesnere & Baumgartner, 2019).

*H1: Innovation positively impact on Organizational Culture*

### **2.2 Corporate Social Responsibility and Organizational Culture**

Corporate social responsibility (CSR) plays a significant role in influencing sustainability within a corporation, and this influence is greatly enhanced by prevailing organizational culture. According to research, fostering a culture that prioritizes CSR can lead to numerous positive outcomes, including improved organizational reputation, enhanced environmental performance, and increased employee engagement (Fatima & Elbanna, 2023; Naab & Bans-Akutey, 2021). When an organization cultivates a culture that values CSR, it not only strengthens its commitment to sustainable practices, but also facilitates its easier implementation, thereby driving overall sustainability (Forozandeh, 2021; Mujtaba & Mubarik, 2022). The relationship between organizational culture and sustainability is complex, and can be mediated by CSR. A strong organizational culture emphasizing sustainability can amplify the impact of CSR initiatives, making it easier for organizations to integrate sustainable practices into their operations. Conversely, a culture that is risk-averse or resistant to change can hinder CSR efforts and limit their effectiveness (Crucke et al., 2022). This underscores the importance of developing and nurturing an organizational culture that supports and promotes CSR as a key strategy for achieving sustainability goals.

Studies indicate that the level of CSR involvement within an organization is significantly influenced by its culture. Organizations that prioritize CSR are more likely to engage in higher levels of CSR activities, whereas those with cultures that resist change or are risk averse may struggle to implement effective CSR initiatives. This suggests that organizational culture can either facilitate or impede CSR efforts depending on the values and attitudes promoted within the organization. To effectively promote CSR, research suggests adopting a structured process model. This model includes the creation of integrated cross-departmental CSR teams, which ensure that CSR efforts are coordinated and supported across various functions within the organization. Identifying and empowering change agents within an organization can also be critical, as these individuals can drive CSR initiatives and motivate others to participate actively. Additionally, providing adequate funding and incentives can support the successful implementation of CSR projects and initiatives (Saxena, Balani, & Srivastava, 2021; Singh et al., 2020). A CSR-focused organizational culture can lead to higher levels of employee engagement because employees are more likely to feel a sense of pride and purpose when their organization is committed to positive social and environmental impacts. This heightened engagement can result in improved performance and greater alignment with the organization's sustainability goals. Furthermore, a strong CSR culture can enhance an organization's reputation, making it more attractive to customers, investors, and potential employees, who value corporate responsibility and sustainability.

*H2: Corporate Social Responsibility significantly contribute to Organizational Culture*

### **2.3 Environmental Practice and Organizational Culture**

Environmental practices are critical components of corporate sustainability and are deeply influenced by organizational culture. Research underscores that a culture that prioritizes environmental sustainability can significantly encourage employees to engage in environmental conservation practices. Conversely, a culture that is risk averse or resistant to change may deter such conservation

efforts (Singh et al., 2020). This highlights the dual role of organizational culture in either facilitating or impeding the adoption of environmentally sustainable practices. Organizational culture profoundly impacts environmental practices by shaping employees' attitudes and behaviors toward sustainability. Cultures that value environmental sustainability tend to foster more robust practices. Employees in such cultures are more likely to support and participate in initiatives aimed at reducing an organization's environmental footprint. These practices can include waste reduction, energy efficiency improvements, and sustainable supply chain management. By contrast, cultures that resist change or are risk-averse may struggle to implement and maintain effective environmental practices, thereby limiting the organization's ability to achieve its sustainability goals (Crucke et al., 2022).

Environmental practices often mediate the relationship between sustainability and organizational culture. Studies indicate that fostering a culture that prioritizes sustainability can significantly ease the implementation of environmental practices, thereby enhancing an organization's overall sustainability efforts (Maletič, Maletič, & Gomišček, 2018). A strong culture of sustainability ensures that environmental initiatives are not only introduced but also deeply embedded within organizational processes and daily activities. This embedding helps create a consistent and ongoing commitment to environmental sustainability across all levels of the organization. Furthermore, the research points to the potential effectiveness of a structured process model for implementing environmental practices. This model emphasizes the need for integrated cross-departmental environmental practice teams. Such teams ensure that environmental initiatives are coordinated and supported across various departments, thereby promoting a holistic approach to sustainability. Identifying and empowering change agents within an organization is another critical aspect of this model. These change agents can drive environmental initiatives and motivate colleagues to adopt and maintain sustainable practices. Providing sufficient funding and incentives is essential to support the successful implementation of these initiatives (Amjad et al., 2021).

A culture that prioritizes environmental sustainability can lead to numerous benefits for an organization. These benefits include improved environmental performance, enhanced organizational reputation, and increased employee engagement. Employees are more likely to feel a sense of pride and purpose when working for an organization committed to creating a positive environmental impact. This heightened engagement can result in improved performance and greater alignment with the organization's sustainability goals. Moreover, a strong environmental culture can make an organization more attractive to customers, investors, and potential employees who value sustainability.

*H3: Environmental Practice has positive impact on Organizational Culture*

#### **2.4 Innovation and Organizational Sustainability**

Innovation is a key driver in the development and implementation of sustainable practices and initiatives, and forms a critical component of organizational sustainability. The primary objective of such innovation is to create and apply sustainable practices and technologies that mitigate their adverse effects on the environment, while enhancing social sustainability (Garay, Font, & Corrons, 2019). For example, a study focusing on innovation in the tourism industry found that reducing waste and water usage can significantly enhance the sustainability of lodging facilities. Businesses experiencing exponential growth, such as Xiaomi, utilize innovative business models to effectively integrate resources from around the world and achieve rapid expansion (Zhang & Chun, 2023). These models often include strategies, such as leveraging social media and digital technologies, to build an innovation ecosystem. This ecosystem fosters collaboration, accelerates the development of new ideas, and facilitates global integration of resources. In doing so, companies can maintain their competitive edge while advancing their sustainability goals.

In addition to these strategies, knowledge-sharing practices are vital for fostering social sustainability and improving organizational performance. According to Cugueró-Escofet, Ficapal-Cusí, and Torrent-Sellens (2019), factors such as organizational justice, support, dedication, contentment, and justice play a significant role in enhancing knowledge-sharing and collaborative practices. These elements contribute to creating a work environment in which innovation can thrive, thereby leading to more inventive and sustainable business operations. Effective knowledge sharing ensures that valuable

insights and best practices are disseminated throughout the organization, promoting continuous improvement and adaptation. By integrating these innovative approaches, organizations can better address sustainability challenges. The creation and use of sustainable practices not only reduce environmental impacts, but also contribute to social well-being, thus supporting the overall goals of sustainability. This integrated approach ensures that innovation is not just about technological advancements but also includes improving social structures and organizational practices, leading to holistic sustainability.

*H4: Innovation positively impact on Organizational Sustainability*

### **2.5 Environmental Practice and Organizational Sustainability**

Incorporating sustainability concepts into organizational operations and decision-making procedures is crucial for aligning environmental practices with organizational sustainability (Akbar, Ariana, Setyadi, Pawirosumarto, & Endri, 2024; Marlapa et al., 2024; Nawaz & Koç, 2019). This involves implementing high-performance organizing techniques that prioritize environmental management and integrate ecological routines into everyday business processes. By making green activities routine and embedding them into corporate procedures, organizations can significantly enhance their performance and sustainability (Zoogah, 2018). To foster a culture of environmental sustainability, organizations must encourage staff engagement and cultivate a pro-environmental climate. Norton, Zacher, and Ashkanasy (2015) emphasize the importance of engaging employees in sustainability initiatives, which can be achieved by incorporating environmental sustainability into the company's core principles and operational procedures. This may include offering incentives and training programs for staff members to promote sustainable practices (Horak, Arya, & Ismail, 2018). Such initiatives not only raise awareness but also build a workforce committed to sustainability goals.

Moreover, integrating environmental sustainability into corporate plans and operations can stimulate innovation that focuses on sustainability. Batista and Francisco (2018) suggest that this may involve the development of new products, services, or procedures that have a reduced environmental impact and promote social sustainability. By prioritizing environmental considerations in the innovation process, companies can create solutions that benefit both the environment and society. In addition to product innovation, promoting sustainability can lead to improvements in other business areas. For instance, organizations can adopt energy-efficient technologies, reduce waste through improved processes, and implement sustainable supply chain practices. These actions not only mitigate the negative environmental impacts of business activities, but also contribute to the long-term viability of the organization.

*H5: Environmental Practice contribute significantly on Organizational Sustainability*

### **2.6 Organizational Culture and Organizational Sustainability**

Fostering a common set of values and behaviors that promote environmental, social, and governance (ESG) standards is one of the key ways organizational culture enhances organizational sustainability. Employees who work in an environment that supports them are more likely to act in such a way. Norton et al. (2015) argued that strategies include incorporating environmental sustainability into company beliefs and policies and offering incentives and training for sustainable behaviors might help achieve this. Al Mansoob, Al Qubati, and Ekowati (2023) mentioned that the creation of novel sustainable practices and technology can result from an inventive culture that promotes experimentation and risk taking. This may entail the incorporation of sustainability into the process of developing new products and running businesses.

According to Abdelwahed and Soomro (2024), strong corporate governance practices can ensure that sustainability is integrated into organizational decision-making processes and operations. This includes setting clear sustainability goals and metrics, and holding leaders accountable for sustainability performance. Bilan, Hussain, Haseeb, and Kot (2020) highlighted that by encouraging a culture of ongoing experimentation and development, organizational learning and innovation can promote sustainability. This entails incorporating sustainability into organizational learning and growth processes (Prakoso, Pradipto, Roychansyah, & Nugraha, 2020).

*H6: Organizational Sustainability impacted by Organizational Culture*

## 2.7 Research Framework

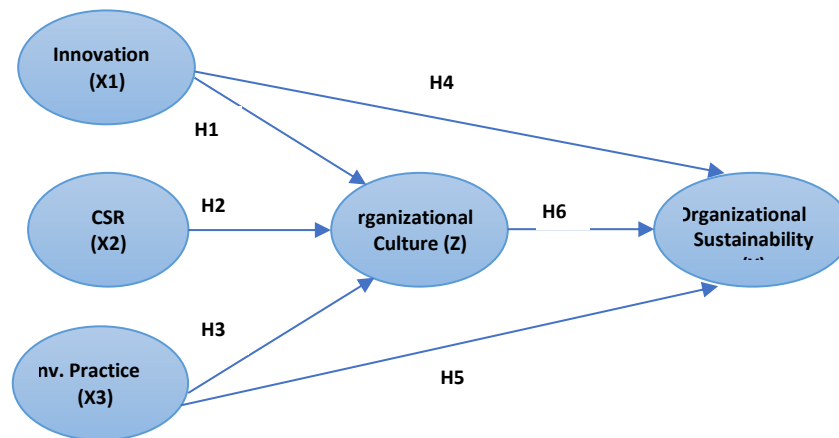


Figure 1. Framework Model

## 3. Methodology

### 3.1 Population and Sample

This study aims to investigate the impact of innovation, corporate social responsibility (CSR), and environmental practices on organizational sustainability, with organizational culture serving as a mediating factor. The study population comprised 235 employees from various manufacturing organizations located in Jababeka Industrial Park, Indonesia. This information was generated from the manufacturing data of Jababeka Park, Indonesia. To ensure a representative sample, a simple random sampling technique was employed, resulting in 173 questionnaires. Following the data collection phase, 15 questionnaires were identified as having misleading or incomplete responses and were excluded from the analysis. This resulted in a final sample size of 158 valid questionnaires, which provided a robust dataset for the study.

### 3.2 Data Collection

Data were meticulously gathered through structured questionnaires distributed to the selected organizations within the Jababeka Industrial Park. These questionnaires were designed to capture comprehensive information on several key variables including innovation, corporate social responsibility, environmental practices, organizational culture, and organizational sustainability. Each item in the questionnaire was crafted to elicit precise responses to facilitate a detailed analysis of the relationships between these variables. The data collection process was grounded in a cross-sectional design, allowing for data collection at a single point in time. Additionally, a correlational design was implemented to meet the research objectives, aiming to identify and quantify the relationships among the study variables.

### 3.3 Data Analysis

The collected data were analyzed using SmartPLS 3, a sophisticated path analysis software that is well suited for structural equation modeling (SEM). This analytical approach was chosen to examine the complex relationships between the independent variables (innovation, CSR, and environmental practices), mediating variable (organizational culture), and dependent variable (organizational sustainability). The use of SmartPLS 3 enabled researchers to conduct a thorough path analysis that provided insights into how each independent variable influenced organizational sustainability directly and through the mediating effect of organizational culture. This detailed analysis helped uncover the underlying mechanisms and interactions that drive sustainability within organizations.

## 4. Result and discussions

### 4.1 Respondent Demographic

This research was conducted on the employees of manufacturing companies located in the industrial area of Jababeka, Indonesia. A total of 158 respondents participated in this study. The demographic

breakdown of the respondents provides a detailed view of the study sample. The respondents were drawn from various types of manufacturing companies, with a significant majority (75.23 %) coming from the electronics manufacturing sector. This indicates a strong representation of the electronics industry in the sample. Gender distribution among the respondents showed a higher number of female than male participants, with females constituting 68.45% of the total respondents. This gender imbalance could reflect employment patterns within the selected manufacturing companies or the specific roles targeted in the survey.

The age distribution of the respondents indicated that a substantial majority were young adults, with 81.47% of the respondents aged between 21 and 30 years. This age range suggests that the workforce in these manufacturing companies is relatively young, which might have implications for the adoption and impact of innovative practices within these organizations. Regarding educational background, the majority of the respondents held a bachelor’s degree (S1), accounting for 72.32% of the total sample. This high level of education among the respondents suggests that the workforce is well educated, which can be an important factor in understanding the impact of corporate social responsibility, environmental practices, and innovation on organizational sustainability. The educational attainment of respondents could also influence their perceptions and engagement with the initiatives being studied (Riestyaningrum, Ferdaos, & Bayramov, 2020).

#### 4.2 Convergent Validity Test

The assessment was based on the convergent validity of each construct for evaluation. Average variance extracted (AVE) parameters and outer loading were used to calculate Convergent Validity. If a reflexive measure's value increased by 0.7, the construct to be measured was considered to have a correlation. For studies in the early stages of development, however, a measurement scale with a loading factor value of 0.5 to 0.6 is thought to be adequate. The outer loading value was displayed in the outer model results using SmartPLS 3.2.9. The goal of convergent validity is to determine the validity of each relationship between an indicator and its underlying constructs or variables. The goal of convergent validity is to determine the validity of each relationship between an indicator and its underlying constructs or variables. The convergent validity of the measurement model with reflexive indicators was evaluated based on the association between the item or component scores and the latent variable scores or the construct score calculated by the SmartPLS program.

Table1. The Convergent Validity Test Result

Variable	Indicator	Outer Loading	Condition	Information
<b>Organizational Sustainability (Y)</b>	OS1	0.704	>0.7	Valid
	OS2	0.771	>0.7	Valid
	OS3	0.826	>0.7	Valid
	OS4	0.737	>0.7	Valid
	OS5	0.753	>0.7	Valid
	OS6	0.750	>0.7	Valid

<b>Organizational Culture (Z)</b>	OC1	0.816	>0.7	Valid
	OC2	0.796	>0.7	Valid
	OC3	0.892	>0.7	Valid
	OC5	0.788	>0.7	Valid
	OC6	0.865	>0.7	Valid
<b>Innovation (X1)</b>	OC8	0.871	>0.7	Valid
	OC9	0.827	>0.7	Valid
	IN2	0.812	>0.7	Valid
	IN4	0.725	>0.7	Valid
	IN5	0.802	>0.7	Valid
	IN6	0.746	>0.7	Valid
	IN7	0.883	>0.7	Valid
<b>Corporate Social Responsibility (X2)</b>	CSR1	0.861	>0.7	Valid
	CSR2	0.757	>0.7	Valid
	CSR3	0.788	>0.7	Valid
	CSR4	0.774	>0.7	Valid
	CSR5	0.854	>0.7	Valid
	EP2	0.755	>0.7	Valid
<b>Environmental Practice</b>	EP4	0.740	>0.7	Valid
	EP5	0.849	>0.7	Valid
	EP7	0.844	>0.7	Valid



(X3)				
	EP8	0.779	>0.7	Valid

Output Smart-PLS 3

Due to the fact that each indicator has a loading factor value greater than 0.70, the final results of the Convergent Validity test demonstrate that all indicators are valid and satisfy the Convergent Validity.

#### 4.3 Discriminant Validity

The cross-loading value, which displays the strength of the association between constructs and their indicators and the indicators of other constructs, provides insight into the discriminant validity value. The square root Average Variance Extracted (AVE) value for each construct and the correlation between the construct and other constructs in the model must be compared to determine the standard value for cross-loading, which must be greater than 0.7. Each construct has a good discriminant validity value if its AVE root value is higher than the correlation value between it and other constructs in the model. The Discriminant Validity test displays the cross-loading result from the Discriminant Validity analysis; reflecting indicators are also visible in the cross-loading between the indicators and their constructs.

Examining the value of each construct's square root of Average Variance Extracted (AVE) and comparing it to other constructs in the model is another way to determine the discriminant validity of the constructs. Each AVE construct value in this study should be greater than 0.5, so that the convergent validity of the tested model is unaffected. Hence, the concept in this study model has a good Discriminant Validity.

Table 2. The Average Variance Extracted Test Result

Variable	Condition	AVE
Organizational Sustainability (Y)	> 0.5	0.620
Organizational Culture (Z)	> 0.5	0.678
Innovation (X1)	> 0.5	0.635
Corporate Social Responsibility (X2)	> 0.5	0.624
Environmental Practice (X3)	> 0.5	0.628

Table 2. indicates that every variable has a good AVE value. For organizational sustainability, organizational culture, innovation, Corporate Social Responsibility, and environmental practices already have a 0.5 score.

Table 3. The Discriminant Validity Test Result (Fornell-Lacker Criterion)

Variable	1	2	3	4	5
Organizational Sustainability	0.812				
Organizational Culture	0.801	0.830			
Innovation	0.761	0.802	0.870		

CSR	0.740	0.770	0.803	0.831	
Environmental Practice	0.714	0.730	0.812	0.825	0.876

The square root of the extracted mean variance for every construct is higher than the correlation between any given construct and other constructs in the model, which may be deducted. Based on the AVE values, the concepts of the estimated model satisfied the requirements for discriminant validity. The internal consistency of the dependability of the instruments in a study model is the two goals of Cronbach's alpha testing, and the test results should be > 0.60. assume cronbach alpha value >0.7 and composite reliability for all latent variables. Should that be the case, it suggests that either the construct has strong reliabilities or the questionnaires that were employed in this study are dependable and consistent.

Table 4. Validity and Reliability Construct Test Result

Variable	Cronbach's Alpha	Composite Reliability	Information
Organizational Sustainability (Y)	0.869	0.935	Reliable
Organizational Culture (Z)	0.874	0.939	Reliable
Innovation (X1)	0.887	0.942	Reliable
Corporate Social Responsibility (X2)	0.864	0.898	Reliable
Social Servicescape (X3)	0.867	0.885	Reliable

#### 4.4 Structural Model Test (Inner Model)

The Structural Model Test assesses and verifies the functionality of a model in a specific setting. It evaluates a model's robustness, dependability, and ability to accurately predict or replicate real-world events. This process used a conceptual framework. The inner model analysis ensures the accuracy and robustness of the structural models, evaluated using the R-squared value (goodness-fit test). The R-Square (R<sup>2</sup>) coefficient, ranging from zero to one, indicates the extent to which the dependent variables are explained. A higher R-squared value indicates that the independent variables can predict fluctuations in the dependent variables well. However, the R-Square increases with the addition of independent variables, even if they have little impact. The R-squared value was determined using data analysis.

Table 5. R-Square Test Result

Variable	R-Square
Organizational Sustainability	0.874
Organizational Culture	0.853

The structural model indicates that the model for the purchase intention variables is robust, as evidenced by an R-squared value exceeding 0.67. Specifically, the R-Square value for Organizational Sustainability was 0.874 or 87.4%. This high value suggests that 87.4% of the variance in Organizational Sustainability can be explained by innovation, Corporate Social Responsibility (CSR), and environmental practices. The remaining 12.6% of the variance may be attributed to other variables that were not examined in this study.

Similarly, the R-square value for Organizational Culture was 0.853 (85.3 %). This indicates that innovation, CSR, and environmental practices can explain 85.3% of the variance in Organizational Culture. The remaining 14.7% of the variance is likely influenced by other factors that were not included in this analysis.

The F-square (Effect Size) metric was used to assess the relative impacts of the influencing (exogenous) variables on the impacted (endogenous) variables. The F-Square value measures the magnitude of the influence of an exogenous latent variable on an endogenous latent variable. An F-Square value of 0.35 indicates a large effect and suggests a significant influence from the predictor variable. A value of 0.15 indicates a medium effect, and a value of 0.02 indicates a small effect.

Table 6. The F-Square Test Result

Variable	F-Square	Information
Organizational Culture > Organizational Sustainability	0.096	Weak
Innovation > Organizational Sustainability	0.162	Medium
Innovation > Organizational Culture	0.315	Medium Strong
CSR > Organizational Culture	0.059	Weak
Environmental Practice > Organizational Sustainability	0.125	Weak
Environmental Practice > Organizational Culture	0.104	Weak

Table 7. Hypothesis Testing Results

No	Hypothesis	Original Sample	Standard Deviation	T-Statistics	P Value	Description	Results
H1	Innovation → Organizational Culture	0.326	0.093	3.698	0.000	Significant Positive	Accepted
H2	CSR → Organizational Culture	0.468	0.079	6.862	0.000	Significant Positive	Accepted
H3	Environmental Practice → Organizational Culture	0.182	0.063	3.253	0.002	Significant Positive	Accepted
H4	Innovation → Organizational Sustainability	0.223	0.078	3.324	0.001	Significant Positive	Accepted
H5	Environmental Practice →	0.315	0.078	4.718	0.000	Significant Positive	Accepted

	Organizational Sustainability						
H6	Organizational Culture → Organizational Sustainability	0.263	0.059	5.497	0.000	Significant Positive	Accepted

The predictive relevance (Q2) value was used to measure the goodness of the structural fit of the inner model. The model has a predictive relevance value if the Q-squared value is greater than 0 (zero). The following computation shows the R-squared value for each endogenous variable used in this study.

Table 8. The Construct Cross-Validation Redundancy Test Results

Variable	SSO	SSE	Q2 (=1-SSE/SSO)
Organizational Sustainability	1.803.000	860.807	<b>0.522</b>
Organizational Culture	1.391.000	569.953	<b>0.590</b>

The following table illustrates the results of the Construct Cross-Validation Redundancy tests. The findings indicate that the organizational sustainability variable has a Q2 value of 0.522, whereas the organizational culture variable has a Q2 value of 0.590. These results demonstrate the predictive relevance of the model. Specifically, the Q2 values suggest that the model has a significant predictive power. A Q2 value greater than 0 indicates that the model is capable of predicting endogenous constructs to a meaningful extent. In this case, both Q2 values well above zero confirm that the model is not only workable but also has a relevant predictive value. Therefore, the computational results validate the model's ability to effectively predict organizational sustainability and culture.

## 5. Conclusion

With a t-statistic value greater than 1.96, all variables and hypotheses in this study demonstrate positive significant results, indicating that they can be accepted. Additionally, the p-value for each hypothesis variable was less than 0.05, further validating the significance of these findings. Moreover, all the variables and hypotheses yielded favorable outcomes for the original sample, consistently showing positive results. Thus, based on the research objective of this study, we found that all hypotheses were accepted. This indicates that each variable and hypothesis exhibited robust and noteworthy outcomes. Furthermore, these significant and positive results across all variables suggest that the identified relationships between innovation, corporate social responsibility (CSR), environmental practices, organizational culture, and organizational sustainability are reliable and meaningful. Theoretically, future researchers should consider adding additional variables to generate distinct findings and broaden the scope of this research. Subsequent studies should explore these relationships in more detail and enhance the data-collection process to support the robustness of the findings.

This study implies that organizational sustainability can be improved if organizational culture can impact the improvement of organizational innovation, CSR, and environmental practices. The practical suggestion of this study is that organizations should promote experimentation and risk-taking to drive innovation. This can be achieved by creating new, eco-friendly, and sustainable goods and services. Businesses should place strong emphasis on CSR by developing projects and programs that demonstrate a commitment to social and environmental issues, such as environmental conservation and community development. To reduce their environmental impact, organizations should adopt sustainable practices and green technologies, such as reducing waste and improving energy efficiency. Developing a thorough sustainability strategy can help cultivate a culture that supports sustainability by promoting employee engagement and participation. This strategy should outline specific sustainability goals and

objectives that can be implemented through a detailed sustainability roadmap and various sustainability initiatives. By integrating these practices into the organizational framework, businesses can enhance their sustainability efforts and achieve long-term success.

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