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The Relationship Between Knowledge of Environmental Law and its Impact on Commitment to Environmental Sustainability

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Abstract

The global imperative for environmental sustainability has catalyzed a shift in societal consciousness, particularly within Western industrialized nations. This heightened awareness, coupled with a collective willingness to enact change, underscores a pivotal moment in addressing environmental challenges and fostering sustainable development. Concurrently, organizations are increasingly tasked with mitigating their environmental footprint. As such, governments, corporations, and academia have intensified their focus on environmental policies and legislation. This study investigates the relationship between environmental legislation awareness, green values (GV), perceived organizational support (POS), and their commitment to environmental sustainability (CES) in Saudi Arabia. Leveraging data from 429 gainfully employed individuals, the examined the interplay of these variables. The research contributes significantly to understanding the drivers of CES in the Saudi context, illuminating the relationships between knowledge of environmental legislation (KEL), GV, POS, and CES among employees. Through rigorous analysis, the findings unveil nuanced insights into the determinants of individual commitment to environmental sustainability. By delineating these relationships, the study provides valuable guidance for policymakers, organizational leaders, and stakeholders striving to foster environmental stewardship in Saudi Arabia and beyond.

Keywords: *Commitment Toward Environmental Sustainability, Green Value, Knowledge of Environmental Legislation, Perceived Organization Support, Structural Equation Modelling.*

Introduction

Environmental sustainability (ES) is critical for realizing the Sustainable Development Goals (SDGs) and addressing climate change challenges. Achieving sustainability and sustainable development (SD) relies on the active participation and agreement of society members (Sulphey et al., 2023; Ziaul and Shuwei, 2023). Individual actions for environmental protection and sustainable development may seem insignificant, but combined across a population can lead to significant environmental benefits (Hohnen, 2007; Vicenete et al., 2021). Thus, environmental conservation is a collective effort involving governments, organizations, and individuals. Governments have various tools to mitigate environmental damage and have a sustainable growth tractile, which includes environmental laws, regulations, and incentives (both positive and negative). Organizations can contribute towards this benign cause by following environmental laws and implementing green practices that could supplement sustainability. Now, governments worldwide are enacting laws to promote environmental sustainability. These laws often include transparency, public participation, and environmental impact assessment provisions. Laws and regulations enacted by governments and supported by international agreements such as the Rio Declaration emphasize the importance of sustainability. These laws help to fulfill the current and future generations' aspirations. However, the public's knowledge and involvement are crucial for such measures' effectiveness.

Saudi Arabia, like other progressive governments, has implemented forward-thinking environmental legislation. Despite this importance, there is limited understanding of Saudi citizens' knowledge regarding environmental legislation, which could impact policy decisions and welfare legislation. Recognizing this gap in the literature, this research aims to address it, providing valuable insights into environmental attitudes and behaviors, particularly in Saudi Arabia, and contributing to the broader literature on sustainability and sustainable development. Due to the absence of a standardized tool for assessing knowledge levels in this context, the researcher took the initiative to develop and validate a 10-item tool. This study also examines

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societal knowledge of environmental legislation and citizens' attitudes and behaviors to promote greater public involvement in environmental sustainability efforts.

Intentions refer to an individual's conscious motivation or willingness to engage in specific behaviors (Ajzen, 1991). Environmental researchers frequently use theoretical frameworks such as the theory of planned behavior (TPB) and the norm activation model (NAM) to analyze pro-environmental intents and behaviors (Ajzen, 1991). In the context of this research, citizens' willingness to be involved in sustainable behaviour reflects their consideration for supplementing governmental efforts toward environmental protection and their readiness to adopt eco-friendly behaviors. The objectives of this study include identifying the relationship between the knowledge levels of environmental legislation and commitment toward environmental sustainability and identifying its relationship with green values. Building upon existing literature on environment-friendly behavior and drawing from various conceptual frameworks, this article proposes a model to explore the factors influencing willingness towards the environment using structural equation modeling (SEM).

Review of Literature

Theoretical Backdrop

The Theory of Planned Behavior (TPB), developed by Ajzen (1985, 1991) and further elaborated by Fishbein and Ajzen (2010), is a prominent predictive persuasion theory extensively used to investigate various environmental behaviors (Armitage & Conner, 2001). According to TPB, intention is the primary determinant of behavior, which is influenced by attitudes toward the behavior, subjective norms, and perceived behavioral control. The Norm Activation Model (NAM), proposed by Schwartz (1977), elucidates individuals' altruistic and pro-social behaviors that could facilitate environmental sustainability (De Groot and Steg, 2009). This model has been applied extensively to study several pro-environmental intentions and behaviors (Liobikien and Poškus, 2019). This study derives inputs from these theories to examine the proposed connections and relationships.

Knowledge of Environment Law (KEL)

Legal considerations related to economic and social cohesion principles are crucial in shaping the national environmental policy of any country (Soromenho-Marques, 2005). In addition, empirical evidence suggests that societal satisfaction with environmental governance is a significant indicator that can be used to measure the effect of government environmental legislation (Geng and He, 2021). This has made governments across the globe to enact appropriate environmental legislations that could facilitate sustainability and sustainable growth. Saudi Arabia is no exception to this, and the government has enacted comprehensive environmental legislation. The various provisions of the Environmental Act, promulgated through the Royal Decree No. M/34 of 2001 aims to safeguard the environment and society in Saudi Arabia while fostering the sustainable development of the Kingdom's traditional and natural resources. Due to various cultural milieu, Saudi Arabian citizens lack civic participation at the societal level. Previous studies have revealed that these attitudes pose challenges in mobilizing citizens to adopt responsible behaviors and actively promote sustainable lifestyles (Tavares, 2013). Adequate empirical evidence on this topic is also lacking in the Saudi context. Against this backdrop, the study intends to examine the knowledge level of Environmental law among Saudi citizens.

Environmental protection relies heavily on knowledge, particularly in creating and enforcing regulatory frameworks (Hui and Stickley, 2007). This knowledge originates from scientific research and expert insights and forms the basis for policy decisions and actions under environmental laws (Lindsay et al., 2023). However, the accuracy of environmental knowledge evolves with scientific progress, industry advancements, and community awareness of environmental impacts. Environmental regulation must continually adjust to these changes to remain relevant and effective. Evidence shows that knowledge of environmental law is essential for public participation in environmental management programs and their success (Slocum and Thomas-Slatyer, 1995). An empirical study by Liu et al. (2020) found that environmental knowledge influences attitudes, intentions, and behaviors toward the environment. In

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addition, evidence suggests that knowledge of environmental laws could help prevent environmental catastrophes (Maran et al., 2023). In addition, organizations can promote environmental protection by adhering to environmental laws, adopting green energy systems, minimizing packaging waste, utilizing recycled products, and implementing promotional activities that raise awareness of environmental issues (Thompson, 2017).

Green Value (GV)

The concept of green values plays a crucial role in fostering sustainability within organizations, thereby influencing the behavior of their members (Robertson & Barling, 2013). Such values are associated with environmentally friendly behaviors (Robertson and Barling, 2013) and contribute to cultivating green trust and attitudes. Research indicates a significant correlation between personal values and pro-environmental attitudes and behaviors (Al-Ghazali and Afsar, 2021), highlighting the pivotal role of green values in promoting morality and fostering ecological consciousness. Moreover, these values offer emotional benefits and are distinct from materialistic values, as they are inclined towards reducing unnecessary consumption (Furchheim et al., 2020). Consequently, embracing green values can lead individuals towards adopting a modest lifestyle that prioritizes environmental sustainability.

Research has revealed a significant correlation between environmental values and pro-environmental behaviors, offering a potential solution to environmental and ecological challenges. A recent study has identified that a strong dedication to environmental conservation leads to innovative green outputs (Li et al., 2020). This finding underscores the impact of green values on the market system, emphasizing that overlooking this factor can lead to distortions in market pricing.

Perceived Organizational Support for The Environment

Concerns about environmental damage have raised awareness about the importance of protecting the environment in the recent past. These concerns are now a matter of focus for multiple parties, which include various governments, practitioners, research scholars, and companies (Ma et al., 2020; Channa et al., 2021). Progressive companies are now adopting practices for environmental conservation and using them for their competitive advantage (Anser et al., 2020). They earnestly involve all their members to minimize environmental impact (Tariq et al., 2020). Companies foster and support pro-environmental behavior by directing employees to reduce environmental impact through voluntary actions and enhancing environmental performance (Boiral and Paillé, 2012). Companies also integrate environmental strategies with business activities and achieve environmental goals (Tariq et al., 2020).

Organizational support is essential to encourage employees to engage in voluntary behaviours and achieve positive environmental outcomes. This support for environmental initiatives, known as perceived organizational support (POS) for the environment. POS involves an employee's perception of the organization's acknowledgment, appreciation, and consideration of their voluntary inputs toward environmental issues (Seibert et al., 2011). Pioneering work on POS was done by Lamm et al. (2015), who referred to it as employees' perceptions regarding the degree to which organizations value their contributions towards sustainability and environmental performance. POS has a direct influence on employee environmental performance. Employees reciprocate perceived organizational support with positive environmental behaviors (Bhatnagar and Agarwal, 2020).

Employees who perceive their organization's dedication to environmental conservation and receive positive support are inclined to engage in behaviors that enhance environmental performance (Paillé and Meija-Morelas, 2014). In addition, this perception of organizational support for pro-environmental behavior significantly influences employees' environmental performance (Paillé and Meija-Morelas, 2019), underscoring the correlation between heightened perceived organizational support for environmental initiatives and elevated environmental performance.

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Commitment To Environmental Sustainability

Environmental sustainability (ES) can only be realized through a substantial transition towards sustainable development. ES entails the practice of conducting business operations in an environmentally responsible manner. ES embodies the equilibrium between economic advancement and preserving natural resources (Goodland and Daly, 1995), necessitating protecting and conserving these resources. While the concept of ES remains a relatively nascent field of inquiry, numerous scholarly investigations have sought to delineate its parameters. Patzelt and Shepherd (2011) have characterized ES as harmonizing current societal needs with conserving natural resources to ensure their availability for future generations. The attainment of ES demands a synthesis of multidisciplinary expertise and judicious decision-making processes. ES advocates for a global lifestyle that safeguards the environment and biodiversity, eschewing activities that disrupt ecosystems (Goodland, 1995). This imperative is particularly pertinent in the contemporary era as nations strive to foster economic growth within the constraints of finite natural resources (Ones et al., 2015). Crucially, a combination of preventative and remedial measures is essential to address environmental challenges and advance ES objectives. Individual actions and personal behaviors play a pivotal role in realizing ES, encompassing both proactive and passive approaches. Proactive ES pertains to individuals who adopt lifestyles characterized by reduced environmental impact in their consumption patterns, thereby contributing to the preservation of the environment. The latter category pertains to individuals who exemplify ES through their conscientious consumption habits and limited financial resources, resulting in reduced environmental impact. A body of research has elucidated various behaviors, such as pro-ecological attitudes, altruism, environmental knowledge, equity considerations, and frugality, as factors contributing to environmental sustainability (Corral-Verdugo et al., 2009; Sulphey and Faisal, 2021).

Based on the literature review the following hypotheses are formulated for the study:

H1: *Knowledge of Environmental law has a significant positive relationship with Green value*

H2: *Knowledge of Environmental law has a significant positive relationship with Commitment to Environmental Sustainability*

H3: *Knowledge of Environmental law has a significant positive relationship with Perceived Organizational Support*

H4: *Green value has a significant positive relationship with Commitment to Environmental Sustainability*

H5: *Perceived Organizational Support has a significant positive relationship with Commitment to Environmental Sustainability*

Based on the hypotheses formulated for the study the study model is prepared, which is presented as Figure 1.

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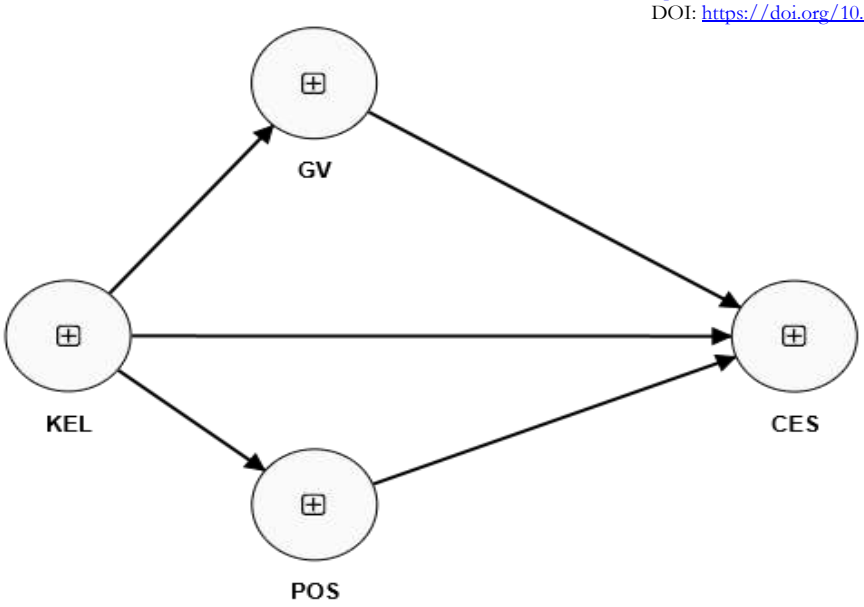

Methodology

This study has collected data from a cohort of 429 employees based in Saudi Arabia. The distribution of the questionnaire was facilitated through various social media groups, with the dissemination of the questionnaire link being overseen by group administrators. Participants were guaranteed the confidentiality of their responses, which contributed to the successful recruitment of 429 respondents within 14 days. Owing to the online data collection method and the compulsory nature of answering all questions in the questionnaire, there were no instances of missing data, and consequently, no responses were excluded from the analysis.

Sampling

As highlighted by Lenth (2001), the sample size is a critical consideration in any statistical investigation, as it is imperative to ensure a sufficiently large sample size to yield results that support robust statistical inferences (Hinkin, 1995). Utilizing large sample sizes facilitates robust statistical analyses (Stone, 1978). Nevertheless, it is imperative to note that a considerable sample size does not necessarily translate to enhanced efficiency, as cautioned by Lenth (2001), as excessively large samples may diminish the scientific significance of the study. Appropriate sample size has been a subject of considerable debate among scholars (Odeh and Fox, 1991; Hinkin, 1995; Lenth, 2001). Numerous researchers have investigated the optimal sample size required for conducting Factor Analysis (FA) (Schwab, 1980; Hoelter, 1993; Hinkin, 1995; Viswanathan, 1993). Hoelter (1993) stipulates that a minimum of 200 samples is deemed acceptable, while Hinkin (1995) suggests a threshold of 150. Viswanathan (1993) and Hinkin (1995) have advocated for sample sizes even below 100. In the context of conducting FA, Schwab (1980) advocates for a 1:10 item-to-response ratio, whereas Rummel (1970) proposes a ratio of 1:4 as optimal.

The sample in the current study adhered to established guidelines recommended for path model estimation by experts like Barclay et al. (1995). According to Barclay et al. (1995), it is advised that the sample size should be equivalent to ten times the number of scale indicators or ten times the maximum number of structural paths within the inner path model. Extreme caution is necessary when designing the sample to ensure an accurate representation of the critical traits of the population, aiming for the highest precision while minimizing variance. The current study has meticulously exercised care in formulating, identifying, and choosing samples.

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In addition, Krejcie and Morgan (1970) outlined a table of the proper representative sample against the overall population. This Table was revised by Bartlett et al. (2001). It has been stated, according to the Table, that the sample size of 429 is sufficient for a population of over one million. It was also specified that as the population size grows, the rate at which the sample size increases diminish and remains consistent beyond 380. Suskie (1996) explains that the sample should exceed 364, considering a sampling error of 5%, which was supported by many scholars, such as Gill et al. (2010). Simon (2010) argues that this should be considered a "golden standard." Many studies have accepted this stipulation (Salim et al., 2020; Kahtani and Sulphey, 2022; Sandhya and Sulphey, 2019, 2021). Thus, the sample size 429 is sufficient to conduct structural equation modelling (SEM). The demographic characteristics of the sample population are presented in Table 1. It can be observed that the samples enjoys good diversity, and hence can be considered diverse.

Table 1. Demographics of the Sample

Particulars		Number	Percent
Gender	Male	267	62.2
	Female	162	37.8
Marital status	Married	362	84.4
	Unmarried	51	11.9
	Divorced	16	3.7
Qualifications	1	18	4.2
	2	18	4.2
	3	140	32.6
	4	62	14.5
	5	191	44.5

Study 1

In Study 1, the questionnaire on knowledge of environmental law was validated. This can be done using multiple techniques. These techniques include factor analysis (FA), inter-item correlations, and item-to-total correlation (Boyle, 1991; Hinkin, 1995). It has been proposed that item scale elimination can be based on item-to-total correlation (Boyle, 1991). Others suggest that items can be retained if the r-values exceed 0.40 (Kim and Mueller, 1978; Kumar and Beyerlein, 1991). This is founded on the idea that all items within a shared domain are expected to show similar average correlations. Churchill (1979) states that low r-values items indicate they do not belong to the correct domain. This can lead to questionable reliabilities. In this study, the r-values are between .856 and .90; therefore, it met the stipulated value of 0.40. Table 2 shows the results of item-to-total correlations.

In addition, factor analysis (FA), exploratory, and confirmatory were done. The FA was conducted using the principal component axis and orthogonal (varimax) rotation method with Kaiser normalization. The exploratory FA (EFA) has shown a single-factor solution with an eigenvalue of 9.831 (78.310% variance). The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy obtained a value of 0.950, and Bartlett's test of sphericity yielded a result of 5013.964 (significant at 0.000). According to Hinkin (1995), a minimum factor loading of 0.40 is recommended for item retention. In this study, all factor loadings exceeded 0.40, falling within the range between 0.853 and 0.908 (see Table X). After the exploratory FA (EFA), confirmatory factor analysis (CFA) was conducted using the Smart-PLS. CFA aids in verifying the factor structure and evaluating the model's significance level, as stated by Kaur and Sharma (2015). The factor loadings are displayed in Table 3. The CFA loadings ranged between 0.853 and 0.902. Kline and Santor (1999) stipulated that standardized factor loading coefficients exceed 0.50, which is met in the present study.

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Scale Evaluation

Cronbach's α was used to assess the internal consistency reliability of the scale. The α value was 0.897, which falls within Nunnally's (1978) suggestion of 0.70. This means the result is reliable (Raes et al., 2010). The study assessed the convergent, content, and criterion validities. The validity of the content means 'the degree to which an instrument covers the meaning of the concepts included in particular research (Stone, 1978). Content validity is measured by exercising investigator judgment (Stone, 1978). The tool demonstrates content validity since it was developed from a thorough literature review, refined, and validated using suitable methods. The researchers meticulously employed an inductive approach when constructing the item pool.

According to Hair et al. (2013), convergent validity assessment involves evaluating the average variance extracted (AVE) and item loadings. According to many studies, the main rule is that the AVE should be above 0.50 (Barclay et al., 1995; Hair et al., 2013). In the present instance, the AVE is 0.819, and the composite reliability (CR) value is 0.978 (Table 3). CR measures the reliability of the items as a whole. The minimum CR value should be 0.70, according to Hair et al. (2013). This means that the data of the paper has exceeded the minimum of AVE and CR values. This also means that the scale is valid and reliable.

Table 2. Item-To-Total Correlation and FA Results

Item Nos.	Items	Item-to-total correlation	Factor loadings	
			EFA	CFA
I have a fair knowledge of:				
KEL1	my rights under the Saudi environmental law	.878**	.875	0.874
KEL2	my duties under the Saudi environmental law	.856**	.853	0.853
KEL3	the licencing provisions of the environmental law	.897**	.897	0.896
KEL4	the law provides incentives to protect the environment.	.901**	.902	0.901
KEL5	the incentives the law offers for using clean energy	.900**	.902	0.902
KEL6	the provision regarding encouragement for social participation	.883**	.883	0.885
KEL7	the provisions regarding enhanced public-private sector participation	.907**	.908	0.908
KEL8	the provisions regarding the use of the best available technologies to protect the environment	.885**	.886	0.888
KEL9	the compensation rules for pollution	.880**	.882	0.881
KEL10	the applicable penal provision of environmental law	.860**	.859	0.858

** - Correlation is significant at the 0.01 level

Study 2

The second study utilized the knowledge of administrative law questionnaire and a few other questionnaires to conduct study 2. The other questionnaires used for the study are as follows:

Green Value (GV): This variable was measured using the four-item scale developed by Dumont et al. (2017). The study reported a Cronbach's α of 0.801. A sample item includes "I feel obliged to do whatever I can to prevent environmental degradation."

Perceived Organizational Support (POS): The three-item scale standardized by Cantor et al. (2012) was used to measure POS. A sample item is "My company is willing to extend itself to solve an environmental problem." This questionnaire has reported robust reliability and validity.

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Commitment To Environmental Sustainability (CES): The commitment towards environmental sustainability was measured using the validated, five-item scale developed by Alcock (2012). A sample item is "I am environmentally friendly in most things I do." This questionnaire has been used in multiple other studies.

In addition, the questionnaire also elicited demographic particulars like age, gender, years of experience, and qualification. The demographic particulars and descriptive statistics are presented in Table 1.

Results

Measurement of Reliability and Validity

The constructs had robust reliabilities and validities. The Cronbach's alpha of GV was 0.766, the Composite reliability (rho_a and c) were 0.777 and 0.849, and the AVE was 0.586. The values for POS were 0.852 (Cronbach's alpha), 0.859 (rho_a), 0.910 (rho_c), and 0.772 (AVE). CES reported a rho_a of 0.525, rho_c of 0.738, and AVE of 0.504. All these values meet their respective thumb rule stipulations.

The outer loadings establish the unidirectional predictive relationships between the latent constructs and the observed indicators (Hair et al., 2014). Table 3 shows that all standardized factor loading coefficients exceed the threshold of 0.50, aligning with the recommendation by Kline and Santor (1999).

Table 3. Outer Loadings

Items	KEL	GV	POS	CES
KEL1	0.874			
KEL2	0.853			
KEL3	0.896			
KEL4	0.901			
KEL5	0.902			
KEL6	0.885			
KEL7	0.908			
KEL8	0.888			
KEL9	0.881			
KEL10	0.858			
GV1		0.723		
GV2		0.709		
GV3		0.809		
GV4		0.815		
POS1			0.909	
POS2			0.920	
POS3			0.803	
CES1				0.410
CES2				0.800

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CES3				0.839

The variance inflation factor (VIF) is a diagnostic tool to assess the degree of multicollinearity within the model. Traditionally, a high VIF, with a threshold typically set at 10, indicates problematic multicollinearity (O'Brien, 2007). Therefore, multicollinearity is considered present when the VIF exceeds 10. Tables 4 and 5 indicate the outer and inner model lists. All VIF values are below 10, thereby negating the presence of multicollinearity.

Table 4. VIF (outer model list)

Items	VIF
KEL1	5.445
KEL2	5.018
KEL3	4.559
KEL4	4.918
KEL5	4.888
KEL6	4.499
KEL7	5.509
KEL8	4.176
KEL9	4.454
KEL10	3.412
GV1	2.082
GV2	2.064
GV3	2.315
GV4	2.340
POS1	3.009
POS2	3.157
POS3	1.589
CES1	1.004
CES2	1.406
CES3	1.408

Table 5. VIF (Inner model list)

Relationship	VIF
KEL -> GV	1.000
KEL -> POS	1.000
KEL -> CES	1.474

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POS -> CES	1.834
GV -> CES	1.812

Discriminant Validity

Discriminant validity is assessed utilizing the Fornell-Lacker criterion (Fornell and Larcker, 1981), which compares the square roots of the average variance extracted (AVE) with the correlations of latent constructs. According to Fornell and Larcker (1981), AVE's square roots (the diagonal values) should exceed the latent constructs' correlation coefficients (r). If the Heterotrait-Monotrait (HTMT) value surpasses the square roots of AVE, it indicates a lack of discriminant validity. Table 6 demonstrates that the constructs exhibit discriminant validity.

Table 6. Discriminant Validity (Fornell-Lacker Criterion)

	CES	GV	KEL	POS
CES	**0.710**			
GV	0.378	**0.766**		
KEL	0.088	0.509	**0.885**	
POS	0.192	0.636	0.517	**0.879**

The model fit was also assessed to examine if the data fit well. For SRMR, any value lesser than 0.08 fits well (Hu & Bentler, 1998). Likewise, any value of NFI lesser than 0.9 has a good fit (Bentler & Bonett, 1980). In the present model, the value was 0.824, which is robust. NFI is the chi-square ratio of the proposed and benchmark models (Lohmöller, 1989). As a result, the greater the chi-square value, the greater the NFI. This makes NFI the preferred measure for examining model fit (Hair et al., 2014). The squared Euclidean distance (d_ULS) was 1.742, and the geodesic distance (d_G) was 0.519, which demonstrates the empirical covariance matrix and composite factor model covariance matrix (Dijkstra and Henseler, 2015; Hair et al., 2016). Thus, the values present robust goodness of fit.

Coefficient of Determination (R^2)

The evaluation of the structural model involves assessing R^2 values and path coefficients (Dijkstra and Henseler, 2015). These metrics gauge the model's predictive accuracy and illustrate the combined impact of exogenous variables on endogenous variables. R^2 is crucial in determining the model's predictive accuracy. According to Cohen (1988), R^2 values of 0.26, 0.13, and 0.02 indicate substantial, moderate, or weak levels of explanatory power, respectively. All R2 values in this study surpass 0.26, (Table 7) indicating a strong explanatory power according to Cohen's criteria (1988). Therefore, the model meets the criteria for substantial explanatory power.

Table 7. R-Square

Vairable	**R-square**	**R-square adjusted**
GV	0.259	0.257
POS	0.267	0.266
CES	0.158	0.153

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The F2 results are detailed in Table 8, which evaluates the measured variance and elucidates the influence of each exogenous variable in the models. These values in the Table align with the effect size criteria outlined by Cohen (1988).

Table 8. f-Square

Variable	CES	GV	POS
KEL	0.014	0.349	0.365
GV	0.144		
POS	0.001		

Hypothesis Testing Using PLS-SEM

The study aimed to enrich and enhance existing knowledge of the studied variables (KEL, GV, POS, and CES) through a multi-analytical approach. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to validate the conceptual model developed based on existing theories and predict effect sizes. Following FA and goodness of fit testing, the significance of all direct and indirect effects in the structural model was assessed using bootstrapping techniques. The test was conducted with a bootstrapping sample size of N = 10,000, as Hair et al. (2016) and Henseler et al. (2014) proposed. Through the bootstrapping technique, t-statistics were assessed for path coefficients to evaluate the significance of the hypothesized connections. The details of the path analysis coefficients, p-value, and t-values for the hypothesized model are presented in Table 9 and Figure 2. These results have thrown out a few interesting facts which can add value to the existing literature.

The results indicate that other than the hypothesized relationship POS -> CES, all the other hypotheses formulated for the study are accepted. The results show that KEL significantly affected GV as hypothesized ($t = 12.635$, $p < .000$) and CES ($t = 2.188$, $p < .029$). POS was also found to relate significantly to KEL ($t = 12.408$, $p < .000$), accepting the hypothesis. In addition, the t-value for the relationship GV -> CES was 6.107 ($p < .001$), thus accepting the hypothesis formulated. However, the t-statistic for the relationship POS -> CES was only 0.455, which is not significant. Thus, this hypothesis was not accepted.

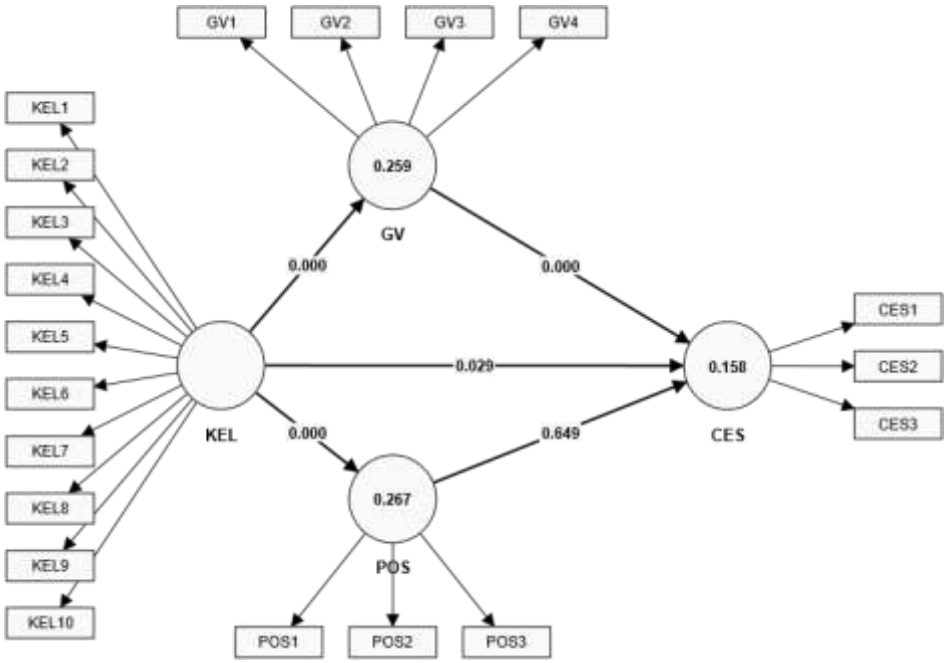

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Table 9. Path Coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
KEL -> GV	0.509	0.511	0.04	12.635	0.000
KEL -> CES	-0.131	-0.133	0.06	2.188	0.029
KEL -> POS	0.517	0.519	0.042	12.408	0.000
GV -> CES	0.469	0.471	0.077	6.107	0.000
POS -> CES	-0.038	-0.035	0.084	0.455	0.649

Discussion

Environmental awareness, concern for its quality, and sustainable development have permeated mainstream culture in the Western industrialized world. This heightened awareness, coupled with a willingness to actively contribute to social and environmental well-being, motivates individuals to make personal sacrifices and lifestyle changes to address environmental challenges and facilitate environmental sustainability (Vicente et al., 2021). Recently, environmental issues have garnered increased attention, prompting organizations to confront the challenge of mitigating their environmental impact (Gilal et al., 2019). Globally, there is increasing awareness of and concern for environmental sustainability. This heightened concern has prompted governments and corporate entities to prioritize environmental sustainability and accord it the necessary importance. In addition, the effect of environmental policies and legislation have become the object of focus by government officials, corporate leaders and academicians (Geng and He, 2021). The findings of this study shed light on the relationship between KEL, GV, POS, and CES among employees in Saudi Arabia. The results revealed several significant insights into the factors influencing individuals' commitment to environmental sustainability.

This study found a positive relationship between KEL and both GV and CES. This suggests that individuals who understand environmental legislation better are more likely to hold environmentally friendly values and demonstrate a substantial commitment to sustainable behaviours. This finding, which aligns with Liu et al. (2020) and Sulphey (2019), underscores the importance of education and awareness programs focused on environmental laws and regulations to promote sustainable behaviours among citizens.

In addition, the study identified a significant positive relationship between KEL POS. This implies that employees knowledgeable about environmental laws perceive their organizations as supportive of environmental initiatives. This finding aligns with the empirical evidence of Liu et al. (2020) and Maran et al. (2023). Organizations can play a crucial role in fostering environmental awareness and knowledge among their employees through training, policies, and initiatives to promote sustainability. The study also found a significant positive relationship between GV and commitment to environmental sustainability. This indicates that individuals with strong environmental values are likelier to exhibit behaviours aligned with environmental sustainability goals. This confirms the earlier finding of Li et al. (2020). Cultivating green values among individuals can be instrumental in promoting environmentally responsible behaviours and fostering a culture of sustainability (Sulphey et al., 2023). However, it is noteworthy that the findings did not support the hypothesized relationship between POS and CES. This suggests that while employees' knowledge of environmental laws relates to organizational support for environmental initiatives, it may not necessarily translate into commitment to sustainable behaviours. Further research is needed to explore the underlying factors that mediate this relationship.

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Overall, the findings of this study underscore the importance of knowledge, values, and organizational support in promoting environmental sustainability, adding to the existing literature. By addressing the identified factors effectively, stakeholders can work collaboratively to advance environmental conservation efforts and contribute to a more sustainable future.

The implications of this study are multifold and offer valuable insights for various stakeholders, including policymakers, organizations, and researchers, in fostering environmental sustainability. The following sections presents the study's implications.

Policy Implications

Policymakers can utilize the study findings to design and implement educational programs that raise awareness about environmental legislation. These programs can target citizens to enhance their understanding of environmental laws and regulations, promoting greater compliance and participation in sustainability initiatives. This also supplements the findings of Geng and He (2021) who found that environmental regulation would enhance environmental awareness and public demand for environmental quality. Governments can incorporate environmental education into various curricula and be involved in public awareness campaigns to instil environmentally friendly values in all sections of society, ensuring a more informed and environmentally conscious population.

Practical Implications

Organizations can leverage the positive relationship between knowledge of environmental laws and CES by investing in employee training and development programs. These programs can cover topics such as environmental legislation, sustainable practices, and the importance of individual contributions to environmental conservation. Organizations can promote sustainable behaviours and initiatives by enhancing employees' understanding of environmental regulations and fostering a supportive work environment. Corporate sustainability initiatives should integrate environmental information and awareness-building components to empower employees with the required knowledge and skills to contribute effectively to corporate environmental sustainability efforts. In addition, environmental sustainability initiatives should be accompanied by clear communication of organizational support for sustainability goals. This can foster a sense of employee responsibility and commitment, driving engagement and participation in sustainability initiatives.

Limitations and Scope for Further Research

The study has done an initial validation of KEL scale. This scale would further validation to be generalized. Since the scale was developed based on samples only from Saudi Arabia, which has a unique culture (Al Kahtani and Sulphey, 2022). It would be ideal to have the scale validated using data from other parts of the world. In addition, a wider range of variables that are connected to environmental legislations and sustainability would be plausible. This would open further avenues for future discussions on the concept. Another possible limitation is the issues associated with experimenter/observer effect (Rosenthal, 1976). This bias is associated with the researcher's interpretation of results. However, this bias may not have impacted the research, since all prescribed threshold values and rules of thumb have been adhered to.

The results emphasize the need for additional research to investigate the elements influencing the relationship between POS for environmental initiatives and individual commitment to sustainability. Future research should examine organizational culture, leadership support, and employee perceptions to better understand this relationship. Longitudinal research may provide valuable insights into the dynamics of information acquisition, attitude formation, and behaviour change across time, allowing for a better understanding of the mechanisms that drive environmental sustainability results. The study also highlights the need for further research to explore the factors influencing the relationship between POS for environmental initiatives and individual commitment to sustainability. Future studies could investigate organizational culture, leadership support, and employee perceptions to understand this relationship better. Longitudinal studies could provide valuable insights into the dynamics of knowledge acquisition, attitude

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formation, and behaviour change over time, offering a deeper understanding of the mechanisms driving environmental sustainability outcomes. Studies could also be undertaken to examine the moderating role of various demographic factors of the respondents on the identified variables. Furthermore, caution needs to be exercised while generalizing the study's outcomes. Finally, there is also scope to replicate the study in other countries with diverse cultures, across the globe. A cross-cultural study with samples from different nationalities could bring exciting results.

Conclusion

This study examined the knowledge of environmental legislation and citizens' attitudes and behaviors to promote greater public involvement in environmental sustainability efforts in Saudi Arabia. This study makes substantial contribution to the understanding of the factors influencing CES in Saudi Arabia. The findings highlight the importance of knowledge of environmental law, and green values in shaping individuals' commitment to sustainable behaviours. Promoting the knowledge of environmental laws, environmental education, fostering green values, and enhancing organizational support for environmental initiatives are essential strategies for promoting environmental sustainability in organizations and communities. Further research is needed to explore additional factors that may influence commitment to environmental sustainability and to develop targeted interventions aimed at promoting sustainable behaviours. It is expected that this study has significant implications in the Saudi context. It is also expected that this study will act as a catalyst for future studies in this interesting and fecund area of research.

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