# From Green Demand to Green Skills: The Role of Consumers in Shaping Sustainable Workforce Competencies

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*Article*

# From Green Demand to Green Skills: The Role of Consumers in Shaping Sustainable Workforce Competencies

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**Abstract**

As sustainability becomes central to tourism, tourists are no longer passive consumers but active stakeholders who influence organizational behavior. This study investigates how green consumer behavior (GCB) shapes expectations for employee green competencies (GSE) and organizational sustainability strategies (OSS). Data were collected through a structured survey of 326 domestic tourists in Albania. Green Skills Expectation (GSE) was modeled as a latent construct derived from green loyalty and willingness to support sustainability. Statistical analyses included exploratory factor analysis (EFA), K-means clustering, and structural equation modeling (SEM). **Results** GCB significantly predicted both OSS and GSE, confirming that green minded tourists influence how organization's structure and communicate their sustainability practices. Cluster analysis identified two consumer profiles: eco-committed tourists and adaptive green supporters, with the former showing stronger expectations for employee level sustainability competencies. **Implications:** The findings highlight tourists' growing influence over workforce development and HR strategy in tourism. Organizations must align internal competencies with market expectations, especially as consumer trust increasingly depends on the visible presence of sustainability values in frontline employees.

**Keywords:** green demand; green skills; sustainable workforce; tourism

## 1. Introduction

As global economies transition toward decarbonization and environmental resilience, the tourism sector as one of the world's largest and most visible service industries is under increasing pressure to adapt. Sustainability is no longer confined to destination marketing or environmental certification schemes; it is now embedded in consumer expectations about the operations, culture and workforce of tourism enterprises. Tourists are no longer evaluating only the ecological footprint of their experiences they are also projecting expectations about how tourism employees embody sustainability values through knowledge, ethics and behavior.

This shift underscores the rising importance of green skills in tourism competencies that enable service staff, guides, hosts and frontline workers to contribute meaningfully to sustainable tourism development. These include technical skills such as energy and water efficiency practices, waste reduction techniques and sustainable sourcing, alongside soft skills such as environmental communication, cultural sensitivity and ethical guest interaction [1]. For tourism businesses to remain competitive, these skills must be visible and authentic, especially in an industry where service delivery is personal and often experiential.

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Additionally, companies are creating sustainability strategies that incorporate environmental concerns into their value propositions, branding and operational procedures in response to green consumer demands [2]. Commitments to carbon reduction, circular economy principles, sustainable sourcing and reporting transparency are frequently included in these tactics. To establish credibility and trust, businesses are increasingly communicating these initiatives through environmental labeling and green marketing [3].

The concept of green consumer behavior (GCB), defined as the intentional purchase of environmentally friendly products and services, has received significant attention in sustainability literature [4–6]. The prior research has emphasized its influence on marketing strategies, eco-certifications and product design [7]. Far less is known about how green minded tourists influence internal human resource development, particularly in shaping expectations for green competencies among tourism employees.

Based on Stakeholder Theory [8], Stimulus–Organism–Response (S-O-R) Theory [9] and Human Capital Theory [10] this study positions the tourist not simply as a consumer, but as a stakeholder with the potential to shape strategic and workforce level decisions within tourism businesses. When tourists perceive a tour operator, eco-lodge, or hotel as environmentally credible, they increasingly expect that sustainability to be reflected in employee behavior, service delivery and staff knowledge. This expectation creates dual pressure: tourism organizations must demonstrate external environmental performance while investing in internal green capabilities.

The present study investigates these dynamics through an empirical model that examines the relationships among green tourist behavior, perceptions of organizational sustainability strategy (OSS) and expectations for green skills (GSE) in the tourism workforce. Using survey data collected in Albania and analyzed through Structural Equation Modeling (SEM) and cluster analysis, this study explores the following:

(1) Whether green tourist behavior directly influences perceptions of an organization's sustainability efforts?
(2) Whether these perceptions mediate the relationship between green tourist behavior and expectations for employee green competencies?

By addressing these questions, this research contributes to a deeper understanding of how tourism consumers drive workforce transformation in the sustainability era. The findings offer important implications for tourism operators, policymakers and education providers seeking to align employee training and development with the growing demand for responsible, ethical and environmentally competent tourism experiences.

## 2. Literature Review

*Theoretical Foundation and Literature Review*

Understanding how environmentally conscious tourist preferences influence the development of green skills within tourism organizations requires a foundation in both behavioral and organizational theories. This section integrates three key theoretical perspectives: Stimulus–Organism–Response (S-O-R) Theory, Human Capital Theory and Stakeholder Theory to conceptualize the pathway through which green tourist behavior causes internal organizational change. It then synthesizes empirical insights from literature on green tourism marketing, branding, eco-labeling and workforce transformation to support the proposed model.

### *2.1. Stimulus–Organism–Response (S-O-R) Theory in Tourism*

The Stimulus–Organism–Response (S-O-R) model [9] provides a useful framework for understanding how external stimuli lead to internal responses and visible outcomes. In sustainable tourism, the stimulus (S) represents green tourist preferences for eco-certified accommodations, low impact activities and environmentally transparent operators. The organism (O) is the tourism

 doi:10.20944/preprints202510.1055.v1



organization (e.g., hotels, tour agencies, eco-lodges) that perceives these signals and adapts through strategic, operational and human resource changes. The response (R) is reflected in outcomes such as the visible greening of services, eco-innovation in offerings and the development of green workforce competencies.

This model positions tourists not merely as consumers of tourism products but as initiators of internal organizational transformation. Their preferences exercise direct pressure on firms to realign internal systems including HR practices, employee training and service protocols to meet rising expectations for sustainability [11,12]. In tourism, where service encounters are personal and brand credibility is often judged through staff behavior, this dynamic is especially pronounced.

### *2.2. Human Capital Theory and Green Skills in Tourism*

Human Capital Theory [10] argues that investment in employee education and skill development leads to improved organizational performance, innovation and long-term competitiveness. Applied to tourism sustainability, this theory supports the rationale for tourism businesses to invest in green skills: a combination of technical abilities (e.g., waste management, energy efficiency, sustainable procurement) and soft competencies (e.g., environmental communication, cultural sensitivity, ethical guest relations) necessary for responsible service delivery [1].

Tourism operators increasingly recognize green human capital as a strategic asset. Employees who can authentically represent sustainability values enhance both brand credibility and guest satisfaction [13]. In response to green tourist expectations, firms are called upon to build internal capabilities through structured workforce development aligning with Human Capital Theory's argument that organizational investments in skills are key to securing both market advantage and legitimacy [11,12].

### *2.3. Stakeholder Theory: Tourists as Co-Creators of Workforce Strategy*

Stakeholder Theory [8] asserts that organizations are accountable not just to shareholders but to a broad range of stakeholders including customers, employees, communities and the environment. In tourism, green tourists act as powerful stakeholders who shape legitimacy criteria and influence organizational priorities. When sustainable practices become a baseline expectation, rather than a point of differentiation, tourism firms must embed environmental values across their operations, including hiring practices, staff training and performance management [14].

This theory reframes tourists from external observers to co-creators of organizational behavior. As they seek authenticity and ethical alignment between service promises and staff behavior, green tourists drive tourism organizations to integrate sustainability into their workforce strategy. This includes requiring frontline staff to be competent in eco-tourism principles, local cultural respect and environmental communication thus directly influencing which skills are prioritized in workforce development [15].

## Green Tourism Marketing and Organizational Transformation

Green marketing in tourism refers to the integration of environmental considerations into the design, promotion, pricing and delivery of tourism experiences. Originally regarded as a niche trend, green marketing is now central to competitive strategy in hospitality, transport and destination management [16,17]. Tour operators, eco-lodges and hotels increasingly adopt green marketing not just to enhance their environmental credentials but to meet evolving tourist expectations for ethical and low impact services.

Peattie, 2001 identified three stages of green marketing evolution - ecological, environmental and sustainable. In tourism, this has translated into a shift from ad hoc environmental initiatives to system-wide changes, such as green certifications, waste-reduction campaigns, sustainable supply chains and local sourcing. These strategies, however, require knowledgeable and engaged staff to

 doi:10.20944/preprints202510.1055.v1



implement and communicate them effectively to tourists. As [18] note frontline employees often become the face of sustainability in service encounters. This makes training and internal alignment essential that employees understand ecological practices, local culture and environmental messaging to uphold the brand's promise.

Consumer demand for responsible travel pushes tourism firms to equip their employees with these competencies. [19] suggest that green marketing only succeeds when it is supported by operational capacity and workforce alignment. In tourism, where service quality is closely linked to employee performance, this alignment is especially critical.

### Green Branding and Employee Competency in Tourism

Green branding in tourism goes beyond eco-labels and "green" imagery, it represents a deeper alignment between a company's environmental commitments and its everyday operations. A green tourism brand gains legitimacy when tourists perceive that hotel staff, tour guides, or service personnel genuinely reflect the sustainability values being promoted [20,21].

In tourism, employee behavior is highly visible. Tourists judge credibility not only by certifications or website claims, but by direct experience - whether staff sort waste, offer reusable materials, or share sustainability-related information. [21] found that brand equity in green contexts increases when tourists perceive frontline staff as sincere and competent in sustainability matters. This positions employee training not as a support activity, but as a core component of brand trust.

As a result, green branding in tourism necessitates internal change. It places pressure on organizations to recruit and train employees who are not only operationally competent but also sustainability literate. Green branding thus reinforces the idea that green skills are essential, not optional, in workforce development.

### Eco-Labels and Consumer Trust in Tourism Services

Eco-labels in tourism such as Green Key, EarthCheck, or Travelife serve as third-party verifications of a business's environmental performance [14,22,23]. They guide environmentally conscious tourists by signaling adherence to sustainability standards [24]. Research shows that eco-labels increase trust and can influence booking decisions, especially among millennial and European travelers [14,24–26].

However, achieving and maintaining eco-label certification imposes internal requirements on tourism firms. From cleaning staff to management, employees must understand how to comply with certification standards, track performance metrics and adapt daily routines. [27]emphasize that meeting eco-label criteria often demands interdepartmental coordination and sustained employee training.

In this sense, eco-labels function not only as marketing tools but as drivers of employee upskilling [13]. They create a need for continuous green competency development especially in service roles that interact with sustainability sensitive guests. This reinforces the argument that external consumer facing tools often shape internal workforce practices in tourism [14].

### Green Tourist Behavior as a Catalyst for Upskilling

Environmental concerns now significantly influence tourist decision-making. A growing number of travelers prefer accommodations and tour operators that prioritize sustainability, with many willing to pay a premium or switch providers to align with their values [28]. Although a gap still exists between environmental attitudes and actual behavior firms that align their workforce capabilities with sustainability expectations are more likely to earn consumer trust and long-term loyalty.

In the tourism sector, green tourists do more than consume responsibly,they raise the standard for what sustainability should look like in practice. They expect frontline staff to demonstrate awareness of environmental impacts, engage respectfully with local communities and uphold green

 doi:10.20944/preprints202510.1055.v1



principles through their service delivery. These behavioral expectations elevate the role of employees in meeting - not merely representing - the brand's environmental commitments [19].

Thus, tourists act as external drivers of internal workforce development. Their preferences shape job role definitions, employee onboarding content and the soft skills emphasized in training [29]. Firms that institutionalize green competencies such as environmental interpretation, energy conservation, or eco-certification compliance into performance metrics and hiring decisions are more likely to succeed in attracting the sustainability-minded segment [29]

GLBI and WSS as Indicators of Green Workforce Expectations

In this study, two dimensions: Green Loyalty and Brand Image (GLBI) and Willingness to Support Sustainability (WSS) are used to capture how tourists' express expectations for employee green skills.

GLBI reflects the emotional attachment tourists have to a green brand and their perception of brand credibility. In tourism, this includes how aligned employee behavior is with advertised environmental commitments. [21] emphasized that tourists trust brands more when staff demonstrate sincerity, transparency and sustainability fluency. Therefore, GLBI acts as a proxy for expectations around employee behavior, training and competency.

WSS indicates the degree to which tourists are willing to support sustainability financially or behaviorally by paying more, staying longer, or choosing low-impact options. Tourists with high WSS tend to expect firms to practice what they preach, including equipping staff with the knowledge and attitude necessary to deliver sustainable services. Hence, WSS is a signal of market pressure for internal workforce transformation.

Together, GLBI and WSS offer a conceptual link between external tourist perceptions and internal human capital strategies.

Theoretical Framework and Hypotheses

The research follows a positivist epistemology, aiming to identify measurable relationships between behavioral drivers and organizational competencies and is grounded in the Stimulus–Organism–Response (S-O-R) model, Human Capital Theory and Stakeholder Theory.

A conceptual model was constructed. From the theoretical framework and to address the research objectives, the following hypotheses are proposed:

*H1: Green Consumer Behavior (GCB) positively influences Organizational Sustainability Strategy (OSS).*

*H2: Organizational Sustainability Strategy (OSS) positively influences Green Skills Expectation (GSE).*

*H3: Green Consumer Behavior (GCB) has a direct effect on Green Skills Expectation (GSE).*

*H4: The latent variable GSE is significantly indicated by GLBI and WSS.*

## 3. Methodology

This study utilized a quantitative, cross-sectional research design to investigate the relationships between green consumer behavior (GCB), organizational sustainability strategy (OSS) and green skills expectation (GSE). Data were collected from a sample of 326 domestic tourists using a structured online questionnaire, which included 16 Likert-scale items adapted from established instruments in the green marketing and sustainability literature [19,21,30] and rated on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

*Data Analysis and Reliability*

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The analytical framework adopted in this study combined descriptive statistics, reliability and factor analysis, cluster segmentation and structural modeling. These procedures allowed for the identification of latent dimensions, segmentation of behavioral profiles and empirical testing of hypothesized relationships using a mediation framework.

Descriptive statistics were first computed to profile the demographic characteristics of the sample and to summarize responses to each item. Measures included means, standard deviations and frequency distributions for variables such as age, gender, education and behavioral indicators of green consumption.

To ensure internal consistency of the survey instrument, Cronbach's alpha coefficients were calculated for each latent construct identified through factor analysis. The reliability analysis showed strong internal consistency across all constructs, with Cronbach's alpha values ranging from 0.79 to 0.88 and an overall scale reliability of 0.93. These results meet the threshold established by [31] confirming the robustness and reliability of the constructs used.

A Principal Component Analysis (PCA) with Varimax rotation was conducted to identify the latent structure of the 16 Likert-scale items. In line with the guidelines of [31] the following criteria were applied to retain factors: Eigenvalues > 1.0; Factor loadings ≥ 0.50; Cross-loading difference ≥ 0.30. The analysis extracted four factors with total variance explained of 78.89%, indicating a strong factorial structure.

To identify distinct consumer typologies based on behavioral dimensions, a K-means clustering algorithm was performed using the four composite factor scores (GCB, OSS, GLBI, WSS). The optimal number of clusters was determined through silhouette analysis, which supported a two-cluster solution. This segmentation added behavioral context to the structural model, illustrating how different types of consumers exert varying degrees of influence on sustainability strategies and workforce expectations.

To test the hypothesized relationships among the latent constructs, a Structural Equation Model was estimated to use multiple regression paths.

## 4. Results

The present study surveyed a total of 326 individuals representing varied sociodemographic profiles. Analysis of gender distribution indicates a predominance of female participants. Of the total sample, 184 respondents (56%) were female, whereas 142 respondents (44%) were male.

Participants in the study were drawn from multiple age groups, as summarized in Table 1.

**Table 1.** Respondents by age category.

| Age Group | Males | | Females | | Total | |
|---|---|---|---|---|---|---|
| | No. | % | No | % | No. | % |
| 18 -24 years | 60 | 35 | 112 | 65 | 172 | 53 |
| 25 -34 years | 60 | 51 | 58 | 49 | 118 | 36 |
| 35 years and above | 22 | 61 | 14 | 32 | 36 | 11 |

As shown, **89% of respondents were below 35 years of age**, indicating a young and environmentally conscious sample, consistent with global findings that younger cohorts are more sustainability oriented.

*Factor Analysis*

To explore the latent structure of the 16-item survey and validate the construct integrity, an Exploratory Factor Analysis (EFA) was performed using Principal Component Analysis (PCA) with Varimax rotation.

 doi:10.20944/preprints202510.1055.v1



The Kaiser-Meyer-Olkin (KMO) index was 0.820 exceeded the 0.60 threshold and Bartlett's Test of Sphericity was statistically significant ($p < .001$), suggesting that correlations between items were sufficiently large to proceed with factor analysis [31].

The PCA generated a four factor solution, each with eigenvalues greater than 1.0, thereby satisfying Kaiser's criterion. Collectively, these four factors explained 78.89% of the total variance in the dataset (see Table 2), exceeding the 60% threshold typically considered acceptable for behavioral and social sciences research [31]. This indicates that the model captures most of the data's structural information with minimal loss.

**Table 2.** Total variance explained.

| Component | Eigenvalue | Explained Variance (%) | Cumulative Variance (%) |
|---|---|---|---|
| PC1 | 9.742794 | 60.51889 | 60.51889 |
| PC2 | 1.490829 | 9.260518 | 69.77941 |
| PC3 | 0.797986 | 4.956815 | 74.73622 |
| PC4 | 0.66895 | 4.155287 | 78.89151 |

The internal consistency of the instrument was confirmed using Cronbach's alpha, which produced a coefficient of 0.9322, reflecting excellent reliability across the overall scale. Each factor also met the minimum reliability threshold ($\alpha \geq 0.70$), indicating strong internal coherence among grouped items.

**Table 3.** Cronbach's alpha explained.

| Construct | No. of Items | Cronbach's Alpha |
|---|---|---|
| GCB | 5 | 0.842 |
| OSS | 5 | 0.878 |
| GLBI | 3 | 0.791 |
| WSS | 3 | 0.816 |
| Total | 16 | 0.9322 |

The four extracted factors were interpreted and labeled based on item loadings and theoretical alignment:

(1) Green Consumer Behavior (GCB) - reflecting tourists' eco-preferences, including brand-switching for environmental reasons.
(2) Organizational Sustainability Strategy (OSS) - capturing perceived transparency, sustainable certifications and green marketing credibility.
(3) Green Loyalty and Brand Image (GLBI) - tourists' emotional trust and alignment with environmentally responsible tourism providers.
(4) Willingness to Support Sustainability (WSS) - economic and moral commitment to support sustainable services.

*Latent Variable: Green Skills Expectation (GSE)*

Although the original instrument did not directly measure workforce green skills, GSE was modeled as a second-order latent variable derived from GLBI and WSS. This approach conceptualizes expectations for green employee competencies such as sustainability literacy, ethical behavior and environmental service practices as embedded in broader tourist perceptions and behavioral intentions.

GLBI → GSE: $\lambda = 0.801$, $p < 0.001$

WSS → GSE: $\lambda = 0.849$, $p < 0.001$

These loadings validate the use of GSE as a latent construct reflecting the demand for sustainable workforce capabilities in tourism.

 doi:10.20944/preprints202510.1055.v1



By taking the average of GLBI and WSS, the GSE construct captures both: the perceptual (attitudinal) dimension: what consumers believe about green brands and their trust in brand responsibility (GLBI) and the behavioral/economic dimension: the extent to which consumers are willing to act on those beliefs, even at a cost (WSS).

This integration reflects a dual layered demand signal: consumers who trust green brands and are willing to support them financially are more likely to expect those brands to be internally consistent, especially in terms of employee capabilities and ethics. GSE, as constructed, reflects an empirically grounded and conceptually coherent measure of consumerdriven demand for green skills within organizations.

These factors form the basis for subsequent cluster analysis and structural modeling, providing a valid and reliable structure for examining how green consumer behavior influences sustainability expectations and workforce transformation.

*Behavioral Segmentation: K-Means Clustering of Green Consumer Profiles*

To uncover distinct behavioral patterns among respondents, K-means clustering was performed on the four extracted composite scores: Green Consumer Behavior (GCB), Organizational Sustainability Strategy (OSS), Green Loyalty & Brand Image (GLBI) and Willingness to Support Sustainability (WSS). Each score was computed as the mean of items responses within each validated factor.

Silhouette analysis was used to determine the optimal number of clusters, which indicated that a two-cluster solution yielded the most meaningful segmentation.

*Cluster 1: Committed Eco-Tourists.* Participants in this cluster exhibited high scores across all four dimensions, particularly in WSS and GLBI. This profile reflects deep engagement with sustainability at both the behavioral and attitudinal levels. Consumers in this group not only choose green products but also exhibit brand loyalty and a willingness to incur additional costs to support sustainability. Demographically, this group was younger (18–24) and predominantly female, indicating a generational and gender-driven orientation toward sustainability leadership.

*Cluster 2: Green-Adaptive Tourists*. This segment reported moderate GCB and OSS perceptions, with lower scores on WSS. Although they show awareness of environmental issues and some responsiveness to green marketing, their financial and emotional commitment to sustainability is less pronounced. This group represents a more pragmatic orientation, potentially influenced by price sensitivity or lack of trust in green claims.

**Table 4.** Characteristics of clusters.

| Cluster | % of Sample | GCB | OSS | GLBI | WSS |
|---|---|---|---|---|---|
| Committed Eco-Tourists | 82.82 | 4.31 | 4.37 | 4.54 | 4.01 |
| Green-Adaptive Tourists | 17.18 | 2.31 | 2.75 | 2.79 | 1.82 |

These results reinforce the idea that green consumers are not a homogeneous group. The Eco-Supporters send stronger behavioral and symbolic signals to organizations, which may in turn incentivize firms to invest in green workforce development, while the Green-Adaptive segment may require more credible organizational communication to deepen engagement.

*Structural Equation Modeling (SEM): Latent Construct Approach*

To empirically examine the conceptual framework, a Structural Equation Modeling (SEM) approach was used, treating Green Skills Expectation (GSE) as a latent construct defined by two observed indicators: Green Loyalty and Brand Image (GLBI) and Willingness to Support Sustainability (WSS). This approach allowed us to analyze both direct and mediated relationships between green consumer behavior (GCB), organizational sustainability strategy (OSS) and workforce sustainability expectations (GSE).

 doi:10.20944/preprints202510.1055.v1



As shown in Table 5, the SEM path model tested three primary hypotheses (H1–H3). The standardized path coefficient for H1 (GCB → OSS) was β = 0.743, with a standard error of 0.035 and a t-statistic of 21.23 ($p < 0.001$), supporting a strong and statistically significant relationship. This confirms that consumers with strong green values and behaviors significantly influence how they perceive organizational efforts toward sustainability.

For H2 (OSS → GSE), the path coefficient was β = 0.863, with a standard error of 0.042 and a t-statistic of 20.55 ($p < 0.001$), providing robust support for the hypothesis that consumer perceptions of sustainability-oriented strategies in organizations lead to higher expectations for green workforce competencies.

The direct path H3 (GCB → GSE) also showed a significant positive relationship (β = 0.660, SE = 0.040, t = 16.50, $p < 0.001$), suggesting that consumers not only evaluate external sustainability efforts but also form direct expectations regarding the internal capabilities and ethical training of employees.

**Table 5.** SEM Hypothesis Testing.

| Hypothesis | Path | β | Std. Error | t-Statistic | p-value | $R^2$ | Decision |
|---|---|---|---|---|---|---|---|
| H1 | GCB → OSS | 0.743 | 0.035 | 21.23 | < 0.001 | 0.724 | Supported |
| H2 | OSS → GSE (latent) | 0.863 | 0.042 | 20.55 | < 0.001 | 0.677 | Supported |
| H3 | GCB → GSE (latent) | 0.660 | 0.040 | 16.50 | < 0.001 | 0.821 | Supported |

The $R^2$ values for the dependent variables were substantial: 0.724 for OSS, 0.677 for GSE (when predicted by OSS only) and 0.821 for GSE (when predicted by both OSS and GCB). These values indicate that the model explains a considerable amount of variance in sustainability strategy perception and workforce expectations, further reinforcing the strength of the relationships.

The measurement model confirmed the validity of modeling Green Skills Expectation (GSE) as a latent construct. As shown in Table 6, both GLBI and WSS exhibited strong loadings onto GSE, with $\lambda = 0.801$ and $\lambda = 0.849$, respectively. These factor loadings were statistically significant ($p < 0.001$), confirming that the latent construct is well-represented by these observed variables.

**Table 6.** Latent Construct Loadings for GSE.

| Latent Variable | Indicator | Loading (λ) | p-value |
|---|---|---|---|
| GSE | GLBI | 0.801 | < 0.001 |
| GSE | WSS | 0.849 | < 0.001 |

Model fit was assessed using several standard indices, presented in Table 7. The results confirm that the SEM model achieved excellent fit: CFI = 0.963 and TLI = 0.951, both above the 0.95 threshold for excellent fit. RMSEA = 0.045 and SRMR = 0.039, both indicating strong approximation and residual fit. While the $\chi^2$ value (121.45) was statistically significant (p = 0.001), this is expected in large sample models and does not undermine the good fit shown by the other indices

**Table 7.** SEM Model Fit Indices.

| Fit Index | Value |
|---|---|
| Chi-square ($\chi^2$) | 121.45 |
| p-value | 0.001 |
| CFI | 0.963 |
| TLI | 0.951 |
| RMSEA | 0.045 |
| SRMR | 0.039 |

 doi:10.20944/preprints202510.1055.v1



These results empirically confirm that green consumer behavior plays a critical role in shaping not only perceptions of sustainability efforts but also expectations for internal competencies effectively acting as a driver of green workforce transformation. The strength of the direct and indirect paths highlights the dual influence of consumer action: external market signaling and internal behavioral demand.

## 5. Discussion

This study examined the role of green consumer behavior in shaping organizational sustainability strategies and workforce expectations, particularly the development of green skills. The use of a latent variable - Green Skills Expectation (GSE) - derived from two key behavioral dimensions (GLBI and WSS) enabled a more precise measurement of how consumer attitudes and economic commitment signal demand for internal organizational competencies. The results of the SEM analysis provide several insights with significant implications for theory and practice.

*Consumers as Agents of Organizational Transformation*

The results clearly demonstrate that green consumer behavior (GCB) exerts a significant influence on how consumers perceive organizations' sustainability strategies. This aligns with Stakeholder Theory [8], where consumers function as key stakeholders capable of shaping strategic priorities. When organizations recognize this pressure, they are more likely to adapt not just their marketing, but also their internal operations and training systems to align with sustainability values.

Moreover, the significant path from GCB to OSS suggests that environmentally engaged consumers critically evaluate companies based on their transparency, packaging, eco-claims and promotional ethics. This reaffirms earlier research [3] indicating that green branding is no longer limited to surface level tactics but demands credible, systemic alignment across functions including human resources and employee conduct.

*From Strategy to Skills: The Mediating Role of OSS*

A second key finding is that organizational sustainability strategy significantly predicts GSE. Consumers who perceive a company as genuinely committed to sustainability develop higher expectations for the competencies, behavior and knowledge of its employees. This supports the Human Capital Theory framework [10] where consumer demand acts as an informal signal for firms to invest in workforce training, reskilling and ethical development.

Interestingly, the indirect pathway (GCB → OSS → GSE) confirms that perceptions of a company's strategy moderate and enhance the relationship between consumer values and expectations of green skills. This also aligns with S-O-R Theory [9], where the stimulus (consumer behavior) triggers an organizational organism (OSS), leading to a behavioral response (workforce transformation).

*The Power of Direct Expectation*

Even beyond the organizational strategy, the direct effect of GCB on GSE was strong and statistically significant. This suggests that green consumers are not passive observers; they actively form expectations about internal competencies based on their values, irrespective of what the organization claims externally. This reflects a higher order cognitive association between sustainable consumption and perceived ethical integrity within firms, as discussed by (Norton et al., 2015).

This finding is particularly important because it places consumer expectation on par with traditional institutional or regulatory pressures in driving green skills development. When a consumer supports a green brand, they implicitly expect every aspect of that brand from product to personnel to reflect those values.

*Validating the Latent Construct of GSE*

 doi:10.20944/preprints202510.1055.v1



The use of GSE as a latent construct combining GLBI and WSS was both theoretically and empirically justified. The factor loadings ($\lambda = 0.801$ and $\lambda = 0.849$) showed that consumer loyalty and economic commitment are not isolated behaviors they merge into a coherent psychological expectation for sustainable workforce practices. This opens a new opportunity for future research on green competencies, especially in linking customer perception to human resource development and internal ethics.

## 6. Conclusion

This study contributes to the growing literature on sustainable tourism by empirically validating a conceptual model in which environmentally conscious tourists act as catalysts for internal workforce transformation. In an industry where employee interaction plays a central role in service delivery, the findings highlight how tourist expectations directly influence the competencies required of tourism employees.

*Theoretical and Practical Implications*

This research adds value across three core theoretical domains:

Stimulus–Organism–Response (S-O-R) Theory: This study extends the S-O-R model by showing that tourist preferences (stimuli) not only trigger changes in tourism marketing and strategy (organism) but also initiate internal shifts in human capital investment - particularly the development of green service competencies.

Human Capital Theory: Our findings illustrate that green tourists serve as external market signals that push tourism businesses to invest in sustainability training, ethical awareness and employee upskilling to stay competitive and meet growing expectations.

Stakeholder Theory: By positioning tourists as active stakeholders, the study reinforces their influence over not only brand perception but also organizational structures, including HR strategies and service design.

By linking green loyalty (GLBI) and willingness to support sustainability (WSS) to the construct of Green Skills Expectation (GSE), this research bridges consumer psychology with sustainable workforce development. It shows that tourists' trust and behavioral commitment extend beyond environmental impact they increasingly expect tourism employees to reflect and represent the values of sustainable travel.

*Practical Implications*

For tourism business leaders, educators and human resource managers, this study provides timely and actionable insights:

Investing in green employee skills is no longer just a compliance measure; it is a market driven necessity.

Tourists evaluate employee behavior, communication and knowledge as part of their overall loyalty to green brands.

Sustainable tourism marketing must be aligned with HR practices ensuring that staff training, culture and ethical behavior reinforce external sustainability messages.

Public institutions and tourism policy makers should support green tourism certifications, eco-labels and consumer education, not just to influence behavior but to accelerate workforce transformation toward sustainable service delivery.

*Future Research Directions*

This study highlights several directions for future research in sustainable tourism. Developing tourism specific measures of expected employee sustainability knowledge and behavior would strengthen the construct validity of green skills research. Qualitative studies could explore how

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businesses interpret tourist expectations and incorporate them into HR practices and employee engagement.

Comparative research across subsectors and countries could expose how consumer-driven sustainability pressures vary, helping tailor workforce strategies. Since younger and female tourists showed stronger green expectations, future studies could use moderation analysis to examine how demographics influence workforce development.

A broader multi-stakeholder lens considering employees, regulators, and communities would offer a more complete view of how green skills emerge within tourism systems.

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