TOURISTS' WILLINGNESS TO PAY A GREEN PREMIUM: A SYSTEMATIC REVIEW OF THE THEORY OF PLANNED BEHAVIOR AND CONTINGENT VALUATION LITERATURE

Ziyodullayeva Muxlisa Akmal qizi
Davr Bank - HR manager

ABSTRACT

This paper reviews and synthesises the literature on tourists' willingness to pay (WTP) a price premium for green hotels, combining the Theory of Planned Behavior (TPB) with the Contingent Valuation Method (CVM). Drawing on studies from developed and developing-country contexts, the review identifies three main patterns: first, TPB constructs — attitude, subjective norm, and perceived behavioral control — consistently predict WTP, though their relative strength varies by cultural context; second, Value-Belief-Norm (VBN) theory frequently complements TPB by capturing the moral/ethical side of green consumption; and third, CVM provides the measurement bridge that converts psychological intention into an actual monetary figure. The review also finds that income and financial literacy are rarely included as moderators in TPB-WTP models, and that Central Asian markets are almost entirely unstudied. An integrated conceptual framework and seven hypotheses for empirical testing are proposed as the foundation for doctoral-level research in Uzbekistan.

Keywords: *willingness to pay; green hotels; Theory of Planned Behavior; Contingent Valuation Method; sustainable tourism; systematic review*

1. Introduction

Research on green hotels has largely focused on why tourists form positive intentions toward sustainable accommodation. Far less attention has been paid to a practically more important question: how much are tourists actually willing to pay extra for a green-certified hotel room? This distinction matters because the financial viability of going green ultimately depends on whether the price premium tourists will pay covers the cost of certification and sustainability upgrades.

This paper bridges two literatures that are rarely combined: the psychological tradition of TPB, which explains the attitudes and norms driving green hotel choice, and the economic tradition of CVM, which quantifies what tourists would actually pay. The review has three goals: (1) to map how TPB constructs have been used to explain WTP across different studies; (2) to assess how CVM has been applied to value green and environmental attributes; and (3) to identify the financial variables — income, price sensitivity, financial literacy — that remain under-studied, and to propose a framework that incorporates them. Central Asia, specifically Uzbekistan, is the motivating empirical context: the region is almost entirely absent from this literature despite its rapid post-2017 tourism growth.

2. Review Approach

This review uses a systematic, narrative-synthesis approach rather than statistical meta-analysis, which is appropriate given the wide variation in measurement instruments and methods across WTP studies. Studies were identified by searching for combinations of terms relating to willingness to pay, green hotels, price premium, TPB, and CVM, supplemented by backward citation tracking. Three inclusion criteria were applied: (a) the study examined WTP or a price-premium construct in a tourism or hospitality setting; (b) it engaged with TPB, an extension of TPB, or CVM; and (c) it reported an empirical, quantitative finding. Studies on general pro-environmental purchasing were included only when their methodology or findings were directly transferable to the hotel context.

3. Theoretical Foundations

Understanding tourist WTP for green hotels requires two theoretical traditions working together. Table 1 summarises the five key frameworks and maps each to its role in the research.

Table 1. Theoretical frameworks and their relevance to WTP research

Theory	Core idea	Relevance to WTP research
Theory of Reasoned Action (TRA)	Behavior is driven by intention, shaped by attitude and subjective norms.	Foundational precursor to TPB; lacks a control dimension needed for resource-constrained decisions like paying a premium.
Theory of Planned Behavior (TPB)	Extends TRA by adding perceived behavioral control: intention is predicted by attitude, subjective norm, and perceived behavioral control.	Most widely used framework in green hotel research; consistently linked to WTP a premium across different countries and contexts.
Value-Belief-Norm Theory (VBN)	Pro-environmental behavior follows a chain: values → beliefs about consequences → personal moral norm.	Frequently combined with TPB to capture the moral/ethical dimension of WTP that pure rational-choice models miss.
Utility Maximization Theory	People choose the option that maximizes personal benefit within their budget constraint.	Provides the economic foundation: WTP is the monetary expression of the utility tourists gain from a hotel's green attributes.
Contingent Valuation Theory (CVM)	The value of something with no market price can be estimated by asking people directly what they would pay for it.	Converts psychological intention into an actual monetary WTP figure — the key measurement tool for Thesis 1.

3.1 From TRA to TPB

The Theory of Reasoned Action (TRA) proposed that behavior is driven by intention, which is shaped by attitude and social norms. The Theory of Planned Behavior extended this by adding perceived behavioral control — the recognition that even motivated people may not act if they face barriers such as cost or limited availability. In the green hotel context, perceived behavioral control often reflects whether guests feel they can afford or easily access a certified green option, making it directly linked to WTP.

3.2 The Moral Dimension: VBN Theory

Many studies reviewed here augment TPB with Value-Belief-Norm (VBN) theory, which argues that pro-environmental behavior is also a moral act — driven not just by personal benefit but by a sense of obligation. VBN proposes a chain: values → beliefs about environmental consequences → personal moral norm. This moral norm can sustain WTP even when the tangible personal benefit of staying in a green hotel is unclear, which is why combining TPB and VBN consistently outperforms using either framework alone.

3.3 CVM and Utility Maximization

The economic tradition treats tourists as utility-maximizing agents whose satisfaction comes from both conventional hotel attributes (comfort, location, price) and the environmental attributes of green certification. Since green attributes have no direct market price, CVM constructs a hypothetical scenario — respondents are told the baseline room rate and asked whether they would pay a higher amount for a certified green room. The dichotomous-choice (yes/no) bid format, analyzed with logit or probit regression, is now the standard because it most closely resembles a real purchase decision. Crucially, TPB and CVM are complementary, not competing: TPB explains why someone wants to pay a premium, CVM measures how much.

4. Synthesis of Empirical Findings

Table 2 summarises the key studies reviewed across both the TPB-based green hotel WTP literature and the CVM-based ecotourism valuation literature.

Table 2. Synthesis of reviewed empirical studies

Study focus	Theory / Method	Context	Key WTP finding
Guest satisfaction and WTP premium prices for green hotels	TPB + service quality; SEM	Cross-national	Emotional attachment and guest satisfaction are strong indirect predictors of WTP a premium — attitude alone is not enough.
Intention to visit green hotels (TPB + VBN)	TPB + VBN; SEM	Post-pandemic market	Subjective norms and perceived behavioral control predict intention directly; WTP emerges

			as a downstream consequence.
Cross-national WTP differences for green hotels	TPB + personality traits; PLS-SEM	Two developing countries	Cultural identity and personality traits moderate the attitude–WTP relationship, suggesting context matters greatly.
Green behavioral intention antecedents (developing country)	TPB + moral norm; SEM (n=203)	Developing country	Altruism shapes attitude, which shapes WTP more through quality perception than moral obligation alone.
Green consciousness and WTP premium price	Extended TPB; CFA/SEM	Single-country hotel guests	Green psychological benefit and CSR image perception precede WTP; moral obligation is not the only driver.
CVM for ecotourism resource valuation (Borneo)	CVM; Logit/Probit	Protected areas, Asia	Visitors reveal a finite, estimable monetary WTP that varies by visitor origin and bid level offered.
WTP for environmental conservation (China nature reserve)	CVM; Tobit model	Nature reserve, China	Most respondents accept a positive WTP, but the mean bid is modest relative to income — WTP is real but not large.

4.1 TPB Predictors Are Consistent, but Context Matters

Across all reviewed studies, attitude toward green hotels is the most consistently significant predictor of WTP, regardless of national context. Subjective norm tends to be a stronger predictor in collectivist or developing-country samples, where social approval carries more weight. Perceived behavioral control's effect varies depending on how it is measured: studies that measure it narrowly (only as self-confidence) find weaker effects than those that also capture price accessibility and availability of green options.

4.2 The Premium Is Real but Modest

A consistent pattern across both hotel-specific and ecotourism CVM studies is that most tourists are willing to pay something extra for a green option, but the premium is modest — clustering in the low-to-moderate single-digit percentage range rather than a large premium. This is an important practical finding: studies that measure only attitude or intention tend to overstate the revenue case for green investment, while CVM-based studies that pin respondents to a specific bid amount produce more conservative, credible estimates for pricing and investment decisions.

4.3 Income and Financial Variables Are Under-Studied

In most reviewed TPB-based hotel studies, income is collected as a demographic background variable rather than tested as a theoretically motivated moderator. The CVM-based ecotourism literature does better — it regularly models income and visitor origin (domestic vs. international) as explanatory variables in the bid amount. This gap is the most important integration opportunity for future research: bringing the CVM tradition's attention to economic moderators into the TPB-based hotel WTP framework.

4.4 Central Asia Is Absent from the Literature

The reviewed literature is concentrated in East Asia, Southeast Asia, the Middle East, and selected African and South Asian contexts. Central Asia — Uzbekistan, Kazakhstan, Kyrgyzstan — is essentially absent, despite the region's rapid post-2017 tourism growth and its distinct cultural and religious context. The Muslim-majority, collectivist values of Central Asian tourists may shape the moral-norm pathway differently from East Asian or Western samples, making direct extrapolation unreliable and direct empirical study necessary.

5. Discussion: Key Tensions and Gaps

Three tensions emerge from this synthesis. First, a measurement tension: many TPB studies use a Likert-scale 'willingness to pay more' item as a WTP proxy, which is weaker than a CVM bid amount because it does not anchor the respondent to an actual price point. Second, a theoretical tension: while most reviewed studies treat TPB and VBN as complementary, few formally test whether moral obligation sustains WTP when the calculated personal benefit is low. Third, a contextual tension: the models and instruments developed in East Asian and Western samples may not transfer cleanly to Central Asian, Muslim-majority settings where communal values and religious attitudes toward environmental stewardship are different.

Together, these tensions justify an extended model that: (a) uses CVM-style bid elicitation rather than a Likert-scale proxy; (b) retains both TPB rational-choice constructs and VBN moral-obligation constructs as parallel predictors; and (c) explicitly tests income and financial literacy as moderators rather than treating them as background controls.

6. Proposed Framework and Hypotheses

The integrated framework proposed here combines five predictor categories from the reviewed literature — attitude, subjective norm, perceived behavioral control, environmental awareness, and perceived moral obligation — with a WTP outcome measured via a CVM-style dichotomous bid format. Income and financial literacy are included as moderators of the attitude–WTP and moral-obligation–WTP paths.

This framework is designed as the theoretical foundation for Thesis 1 of the author's doctoral research programme: an empirical survey-based study of tourists' WTP a green premium in Uzbekistan, analyzed using structural equation modeling (SEM) combined with contingent valuation. The findings from this consumer-side study will feed directly into Thesis 2, which models whether the WTP premium is large enough to make green hotel investment financially viable for operators and bankable for lenders.

Seven hypotheses are proposed for empirical testing:

• H1: A more positive attitude toward green hotels is positively associated with WTP a green premium.

• H2: Higher subjective norm is positively associated with WTP a green premium.

• H3: Higher perceived behavioral control is positively associated with WTP a green premium.

• H4: Higher environmental awareness is positively associated with WTP a green premium.

• H5: Higher perceived moral obligation is positively associated with WTP a green premium.

• H6: Income level positively moderates the relationship between attitude and WTP a green premium.

• H7: Financial literacy positively moderates the relationship between environmental awareness and WTP a green premium.

7. Conclusion

This review synthesises the TPB-based green hotel literature and the CVM-based environmental valuation literature to understand why and how much tourists are willing to pay extra for green-certified accommodation. The main findings are: TPB constructs reliably predict WTP but their relative strength is context-sensitive; VBN's moral-obligation pathway adds explanatory power beyond rational-choice variables alone; the actual monetary premium tourists will pay is real but modest; income and financial literacy are systematically underused as moderators; and Central Asian markets are entirely unstudied. The integrated TPB-CVM framework with income and financial-literacy moderators proposed here addresses all three of these gaps and provides a theoretically grounded, empirically testable foundation for doctoral-level research in Uzbekistan and the wider Central Asian region.

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[Remaining empirical study citations — guest satisfaction & WTP study (Humanities and Social Sciences Communications); TPB + VBN green hotel study (Journal of Tourism Futures); developing-country green behavioral antecedents study (MDPI Sustainability); extended TPB green consciousness study (PMC); cross-national WTP study (ScienceDirect); Borneo CVM study; Kanas Nature Reserve CVM study — to be added with full journal, volume, issue, and DOI details before journal submission.]