



Managing Tourism Decision Overload Through Generative AI: A Multi-Platform Comparative Study of an Algerian Destination

Zerouati Maouahib*¹  and Bencharif Karima² 

¹ Department of Commercial sciences, Faculty of Economics, Setif 1 University-Ferhat ABBAS, Sétif. El Bez Campus, 19137, Algeria
Maouahib.zerouati@univ-setif.dz

² Department of Commercial sciences, Faculty of Economics, Mohamed Khider University, Biskra. BP 145 RP, 07000, Algeria
karima.bencharif@univ-biskra.dz

Abstract. Generative artificial intelligence is increasingly integrated into online travel platforms to support trip planning, yet limited research examines how commercial implementations address tourism decision overload in practice. This study conducts a qualitative, multi-platform comparative analysis of generative AI trip-planning tools on four major platforms—Booking.com, Tripadvisor, Google AI Mode Canvas, and Expedia Romie—using a standardized scenario: a 5-day trip to Algiers, for a solo traveler with mid-range budget and cultural interests. The analysis focuses on three dimensions: choice curation, information synthesis, and recommendation transparency. Results show that Tripadvisor and Google AI Mode most effectively reduced decision overload by generating comprehensive day-by-day itineraries that bundled dispersed information into actionable plans, while Booking.com provided strong accommodation support but weaker activity planning, and Expedia Romie underperformed due to data sparsity for this secondary MENA destination. Transparency emerged as a universal weakness: no platform systematically communicated recommendation logic or flagged potential AI errors. These findings contribute to understanding how platform-level design choices shape AI-mediated tourism decision-making and highlight the need for improved data coverage for MENA destinations, explicit transparency mechanisms, and bias mitigation strategies to ensure generative AI tools support diverse tourism ecosystems while preserving consumer trust and autonomy.

Keywords: Generative AI, Tourism Decision Overload, Trip Planning, Recommender system, MENA tourism, Algeria.

1 Introduction

Generative artificial intelligence (AI) is reshaping how tourists search, evaluate, and select travel options in an increasingly complex digital marketplace, intensifying longstanding concerns about choice and information overload in tourism [1][2][3][4].

© The Author(s) 2026

D. Agti et al. (eds.), *Proceedings of the International Conference on Artificial Intelligence Applications in Business Administration in MENA Region (ICAIBA 2026)*, Advances in Economics, Business and Management Research 393,

https://doi.org/10.2991/978-94-6239-711-8_34

While online agencies and review platforms broaden access to destinations and services, an excess of comparable options and fragmented information can reduce decision quality, increase decision deferral, and undermine satisfaction, prompting the development of recommender systems and, more recently, generative and conversational agents to streamline decision processes [2][3][5][6][7][8][9][10]. Emerging evidence suggests that generative tools such as ChatGPT and platform-specific planners can narrow complex option sets and provide structured suggestions that affect perceived effort, usefulness, and trust, yet concerns about hallucinations, bias, opacity, and privacy remain, and the literature still pays limited attention to how commercial platforms concretely implement choice curation, information synthesis, and transparency in real interfaces [11][12][13][7][9][10].

Against this backdrop, the present study conducts a comparative, multi-platform analysis of generative trip-planning features on leading travel services, focusing on choice curation, information synthesis, and recommendation transparency, in order to deepen theoretical understanding of AI-mediated tourism decision making and to provide actionable insights for tourism businesses and policymakers seeking to use generative AI to alleviate decision overload while preserving consumer autonomy and trust [7][10].

2 Literature review

2.1 Artificial intelligence in tourism

Artificial intelligence has become a central driver in tourism, supporting personalization, operational efficiency, and strategic decision-making. Systematic reviews identify natural language processing, machine learning, and recommender systems as the most employed technologies, with applications spanning marketing, customer service, revenue management, and operations [10][14]. Generative AI—particularly large language models—has rapidly shifted from an emerging topic to a prominent research and practice agenda [15]. [1] position generative AI as a transformative capability across the tourist journey, from inspiration to post-trip engagement, arguing it can lower information processing costs and enable granular personalization while raising concerns over ethics, data governance, and workforce transformation. Against this background, generative AI trip planners represent a high-impact manifestation of AI integration into tourism.

2.2 Information and choice overload in digital tourism

Tourism involves complex, multi-attribute decisions that easily lead to overload in online environments. Meta-analytic and conceptual work establishes that increasing alternatives beyond a threshold reduces decision satisfaction and increases deferral or reliance on simplifying heuristics [16]. In tourism specifically, choice overload affects subjective states and behavioral outcomes through decision strategy complexity [17]. Research on online information overload shows that digital interfaces intensify confusion when combining large volumes of options with heterogeneous, inconsistent cues,

leading to lower perceived decision quality, weakened destination image, and reduced purchase intentions [3][18][19]. Recent studies emphasize that the problem extends beyond quantity to fragmentation across platforms and formats, increasing cognitive integration effort [4][20]. These findings provide a conceptual foundation for viewing generative AI trip planners as tools that may reconfigure choice architectures by summarizing, filtering, and restructuring information.

2.3 Tourism recommender systems

Recommender systems have long addressed information overload in tourism through collaborative filtering, content-based, and hybrid approaches that match users with destinations and accommodations [21][5]. Recent reviews confirm their "pivotal role in travel planning" by tailoring suggestions to user profiles and contextual [22]. Emerging work explores proactive recommendation that anticipates user needs; [6] demonstrate that such interventions can improve satisfaction and reduce perceived difficulty. However, challenges remain, including data sparsity, seasonality, and need for explainability and fairness, as opaque algorithms may undermine trust and exacerbate biases toward popular destinations [5]. Generative AI planners can be seen as an evolution from item-level suggestions to narrative, itinerary-level recommendations combining multiple items into coherent plans, though empirical comparisons with traditional interfaces remain limited.

2.4 Generative AI, trip planning, and consumer trust

A fast-growing body of work examines how generative AI influences travel planning. [11] show that when ChatGPT narrows options, travelers' perceptions of effort and satisfaction depend on retained control, suggesting hybrid human–AI decision processes can mitigate negative effects of option reduction. Users perceive generative itinerary planners as helpful for structuring information and saving time, but express concerns about accuracy and over-reliance [12][23]. Industry actors have responded: Booking.com integrated AI features to "simplify key steps in trip planning" [7], while Tripadvisor launched an OpenAI-powered itinerary generator [8]. However, generative AI introduces new risks: [13] demonstrate that AI hallucinations significantly erode consumer trust, especially for safety-critical trip aspects. [24] argue that bridging the research–practice gap requires balancing automation with transparency, allowing users to understand sources and limitations of AI content.

2.5 Research gap and contribution

The literature shows that AI and recommender systems have long targeted overload, with generative AI further advancing this agenda through conversational, synthesized outputs. However, gaps remain: most studies focus on generic models (e.g., ChatGPT) or industry-level frameworks, with limited attention to how commercial platforms concretely implement generative features [1][11]. Comparative research examining how different platforms vary in choice curation and information synthesis is scarce, as is

systematic analysis of how interfaces communicate logic, sources, and limitations—a gap that recent work identifies as critical for building user trust and bridging research with practice [13][24]. This study addresses these gaps through multi-platform comparative analysis focusing on three dimensions: choice curation, information synthesis, and recommendation transparency; shifting the unit of analysis from algorithms in isolation to the integrated, platform-level tools through which tourists actually experience AI-mediated decision support.

3 Methodology

This study adopts a qualitative, multi-platform comparative design to examine how generative AI trip-planning tools address tourism decision overload. The unit of analysis is the AI-augmented trip-planning interface of leading online travel platforms, and a scenario-based evaluation was conducted using a standardized simulated trip to Algiers, Algeria.

Four platforms were purposively selected because they integrate generative or large-language-model features for leisure travel planning and have substantial global or MENA reach: Booking.com's AI Trip Planner (Smart Filters, Property Q&A, Review Summaries, conversational planner), Tripadvisor's OpenAI-based trip planner (personalized day-by-day itineraries from its review corpus), Google AI Mode with Canvas (side-panel, real-time itineraries integrating Flights, Hotels, Maps), and Expedia's Romie assistant (preference-learning, group chat planning, proactive recommendations) [7][8][25][26].

A single scenario was applied to each platform: a 5-day/4-night trip to Algiers in spring 2026 for a solo, mid-budget traveler interested in culture, history, local cuisine, and authentic experiences. For each platform, a new session was started and natural-language prompts aligned with the scenario were used until a reasonably complete itinerary or recommendation set was produced. All prompts, system responses, and interface elements were captured; cookies were cleared to limit personalization.

The analysis used an a priori framework from research on choice overload, recommender systems, and generative AI in tourism [2][5][13]. Three dimensions were operationalized: Choice curation (how the AI narrows/structures options: extent of narrowing, filters, grouping into itineraries/themes, user control). Information synthesis (how heterogeneous data are condensed: summaries, review sentiment, practical details, itinerary coherence) and Recommendation transparency (how basis, scope, and limits are communicated: data-source statements, explanations, warnings, override controls).

A cross-platform matrix was then constructed for the Algiers scenario, enabling systematic comparison of how each platform reduces perceived complexity, the richness of synthesized information, and the clarity of explanations and uncertainty handling, with particular attention to design choices shaping decision overload for a secondary MENA destination.

4 Results

4.1 Overview of platform responses to the Algiers scenario

All four platforms were tested with the standardized Algiers trip-planning scenario. The platforms varied substantially in their ability to generate useful outputs, the structure of their responses, and the depth of information provided. Table 1 summarizes the key characteristics of each platform's response

Table 1. Summary of platform responses to Algiers trip-planning scenario

Platform	Output format	Itinerary generated	Options presented	Data richness	Transparency features
Booking.com AI Trip Planner	Conversational + structured list	Partial day-by-day suggestions	3–5 accommodations, limited activities	Moderate (reviews, ratings, prices)	Minimal explanations
Tripadvisor AI Planner	Narrative itinerary	Full 5-day itinerary	Bundled attractions per day	High (review excerpts, descriptions)	Implicit data sourcing
Google AI Mode Canvas	Side-panel workspace	Full 5-day itinerary	Flights, hotels, activities integrated	High (Maps, reviews, real-time data)	Limited in-situ explanations
Expedia Romie	Conversational assistant	Partial suggestions	Options presented	Data richness	Transparency features

Source: Elaborated by the authors based on the platforms output

4.2 Choice curation across platforms

The four platforms narrowed and structured options for Algiers very differently. Booking.com’s AI Trip Planner returned 3–5 midrange, centrally located hotels plus broad activity categories, but offered only a weak day-by-day structure and explicitly acknowledged limited activities, directing users to explore locally; users could refine results via filters and follow-up prompts. Tripadvisor generated the most complete 5-day itinerary, bundling 3–4 specific attractions and restaurants per day (e.g., The Great Mosque of Algiers, Casbah of Algiers, Martyrs' Memorial, Notre-Dame d'Afrique, Jardin d'Essai), turning a large pool of listings into about 15–20 concrete recommendations and thereby reducing decision effort. Google AI Mode Canvas also produced a structured 5-day plan, integrating flights, hotels, and activities in a side panel that users could iteratively adjust (e.g., more food-focused experiences), though activity depth for Algiers was thinner than for major European cities. Expedia Romie performed weakest for Algiers, offering only general suggestions and no full itinerary, illustrating data sparsity for secondary MENA destinations and limiting its planning value

4.3 Information synthesis

Information synthesis quality also varied. Tripadvisor provided the richest synthesis, with narrative descriptions combining attraction details, typical visitor experiences, and practicalities like opening hours and context; for instance, its Casbah summary integrated themes such as labyrinthine streets, Ottoman architecture, and optimal visiting times, distilled from many reviews. Google Canvas robustly merged structured data (prices, ratings, distances) with descriptions and Maps, offering hotel comparisons with amenity and review highlights and activities linked to travel times from the chosen hotel. Booking.com synthesized accommodation information well through review-based summaries of “what guests like most” and attribute-focused descriptions, but offered limited synthesized content for Algiers activities and dining. Expedia Romie could combine flight information but lacked sufficient destination content to provide comparable synthesis for Algiers, again reflecting data constraints.

4.4 Recommendation transparency

Transparency was the weakest dimension overall. Google AI Mode Canvas offered the most contextual transparency by visually indicating data sources (e.g., Maps, reviews) and enabling click-through to underlying listings, with the Canvas layout making changes in outputs in response to new inputs relatively visible. Tripadvisor implicitly signaled reliance on its review database through phrases like “traveler favorites” or “highly rated,” but did not clearly explain why specific options were chosen over others and did not warn about outdated information or AI limitations. Booking.com occasionally explained recommendations (e.g., “matches your preference for central location”) and included low-salience disclaimers about verifying details, but gave little insight into selection logic. Expedia Romie stressed its learning and real-time monitoring capabilities but provided limited explanation of planning-phase recommendations. Crucially, none of the platforms systematically highlighted the risk of AI hallucinations or factual errors during trip planning, despite evidence that such errors can significantly damage consumer trust [13].

Table 2. Comparative assessment of platforms across analytical dimensions

Dimension	Indicator	Booking.com	Tripadvisor	Google Canvas	Expedia Romie
Choice Curation	Extent of narrowing	Moderate	High	High	Low
	Itinerary bundling	Partial	Full 5-day	Full 5-day	Minimal
	User control	High	Moderate	High	Moderate
Information Synthesis	Summary quality	Good (hotels)	Excellent	Excellent	Limited
	Review integration	Yes	Yes	Yes	Partial
	Practical details	Moderate	High	High	Low
Transparency	Data source indication	Minimal	Implicit	Moderate	Minimal
	Recommendation explanations	Occasional	Rare	Occasional	Rare
	Error/limitation warnings	Rare	None	Rare	None
MENA Destination Performance		Moderate	Good	Good	Poor
Language Support		English	English	English	English

Source: Elaborated by the authors based on the platforms output

4.5 Implications for tourism decision overload

The comparative analysis (table 2) reveals that generative AI trip-planning tools can substantially alleviate decision overload through choice curation and information synthesis, but effectiveness depends on platform design and destination data availability.

For Algiers scenario, Tripadvisor and Google AI Mode Canvas most effectively reduced overload by generating coherent day-by-day itineraries that transformed dispersed information into actionable plans, demonstrating that generative AI can support destination planning in MENA region, though with less depth than for mainstream cities; Booking.com offered strong accommodation support but weaker activity planning, while Expedia Romie underperformed for inspirational planning due to data sparsity. The universal weakness in transparency across all platforms suggests that current generative AI implementations prioritize usability and perceived helpfulness over explainability and error disclosure. This finding aligns with concerns in the literature that the efficiency gains of AI-mediated decision support may come at the cost of user understanding and appropriate calibration of trust [13][24].

5 Discussion

The findings confirm that generative AI trip-planning tools meaningfully reshape the decision environment for digital tourists, though unevenly across platforms. The most tangible benefit lies in choice curation: Tripadvisor, Google AI Mode, and Booking.com bundle options into coherent multi-day itineraries, directly addressing the

problem that excessive alternatives undermine satisfaction and increase decision deferral [16]. These systems operationalize a hybrid architecture where AI filters and structures while humans retain final authority [11].

However, curation effectiveness is destination-dependent. For Algiers, Tripadvisor and Google AI Mode produced reasonably rich itineraries, whereas Expedia Romie was constrained by data sparsity. This reinforces that algorithmic performance deteriorates under sparse data conditions, with popular options over-represented [22][5]. For MENA stakeholders, generative AI may currently amplify visibility for well-documented destinations while offering weaker support for emergent locations, potentially reinforcing spatial inequalities in tourism demand.

Regarding information synthesis, generative AI significantly reduces cognitive effort by integrating reviews, ratings, and logistical details into manageable packages. Tripadvisor's narrative itineraries and Google's Canvas summaries exemplify effective extraction of themes from user-generated content combined with pragmatic constraints [10][1]. Yet when underlying data are sparse, synthesis becomes generic, underscoring the continued importance of data quality.

The most pronounced weakness is recommendation transparency. No platform systematically communicates how recommendations are produced, what sources are used, or where limitations lie—striking given evidence that AI hallucinations significantly erode consumer trust [13]. Current implementations prioritize frictionless experience over informed decision-making, falling short of frameworks calling for explainable, fair AI aligned with user values [1][24]. Platforms' reliance on popularity metrics risks privileging mainstream suppliers, raising questions about ensuring diverse, inclusive representation of MENA—and specifically Algerian tourism offerings.

6 Conclusion

This study examined how generative AI trip-planning tools on four platforms—Booking.com, Tripadvisor, Google AI Mode and Expedia Romie—handle trip planning for Algiers across three dimensions: choice curation, information synthesis, and recommendation transparency. Results show generative AI can substantially alleviate decision overload by narrowing options into structured itineraries and synthesizing heterogeneous information, especially on platforms with robust data coverage. However, destination-dependent performance differences and systemic transparency deficits pose risks for consumer trust [13].

Theoretically, the study contributes by shifting focus from generic models to concrete platform-level implementations, clarifying how design choices differentially address overload and where they fall short of expectations for trustworthy AI [1][24]. For practitioners, generative itinerary planners create tangible value but should be complemented by transparency mechanisms and bias mitigation strategies. For policy, the study underscores ensuring MENA destinations are adequately represented in AI data ecosystems; without coordinated efforts to improve data quality and multilingual content, platforms may continue favoring dominant hubs [10].

Limitations include reliance on a single destination, a qualitative scenario-based methodology, and the absence of direct traveler outcome measurement, which constrains generalizability and prevents causal claims about whether observed platform differences truly reduce decision overload. Future research could validate the present qualitative findings through quantitative user testing. For example, controlled experiments could assign participants to plan the same multi-day trip using one platform condition and measure perceived information/choice overload, decision confidence, satisfaction with the resulting itinerary, and trust in recommendations. Behavioral metrics such as time-to-completion, number of alternatives consulted, prompt iterations, and decision deferral could complement self-reported scales. Such studies, replicated across multiple destinations and user segments, would strengthen the external validity of the comparative framework and clarify which design mechanisms most effectively reduce tourism decision overload.

Disclosure of Interests. The authors have no competing interests to declare that are relevant to the content of this article.

References

- [1] Dogru, T., Line, N., Mody, M., Hanks, L., Abbott, J., Acikgoz, F., Assaf, A., Bakir, S., Berbekova, A., Bilgihan, A., Dalton, A., Erkmen, E., Gao, L., Guchait, P., Haywood, J., Karatepe, O.M., Kim, J., Lee, M., Mao, Z., Zhang, T.: Generative artificial intelligence in the hospitality and tourism industry: Developing a framework for future research. *Journal of Hospitality and Tourism Research* 49(2), 235–253 (2025).
- [2] Park, J.Y., Jang, S.C.S.: Confused by too many choices? Choice overload in tourism. *Tourism Management* 35, 1–12 (2013).
- [3] Tan, W.K., Kuo, P.C.: The consequences of online information overload confusion in tourism. *Information Research* 24(2), 826 (2019).
- [4] Zhong, D., Wang, Y., Wang, L., Sun, Q., Wang, M.: Information overload in digital tourism marketing: Challenges and opportunities for enhancing purchase intentions. *Information Development*, 02666669251334136 (2025).
- [5] Solano-Barliza, A., Arregocés-Julio, I., Aarón-Gonzalez, M., Zamora-Musa, R., De-La-Hoz-Franco, E., Escorcía-Gutiérrez, J., Acosta-Coll, M.: Recommender systems applied to the tourism industry: A literature review. *Cogent Business & Management* 11(1), 2367088 (2024).
- [6] Li, C., Zheng, W.: Nipping trouble in the bud: A proactive tourism recommender system. *Information & Management* 62(1), 104062 (2025).
- [7] Booking.com: Booking.com enhances travel planning with new AI-powered features for easier, smarter decisions. Press Release, <https://news.booking.com/bookingcom-enhances-travel-planning-with-new-ai-powered-features--for-easier-smarter-decisions/>, last accessed 2026/01/12.
- [8] Tripadvisor: Tripadvisor launches AI-powered travel planning product. Press Release, <https://tripadvisor.mediaroom.com/Tripadvisor-launches-AI-powered-travel-planning-product>, last accessed 2026/01/13.

- [9] Weiss, E.: The empowered traveler: How generative AI can help the travel industry streamline booking information. Accenture, <https://www.accenture.com/us-en/blogs/travel/empowered-traveler>, last accessed 2025/01/17.
- [10] López-Naranjo, A.L., Puente-Riofrio, M.I., Carrasco-Salazar, V.A., Erazo-Rodríguez, J.D., Buñay-Guisñan, P.A.: Artificial intelligence in the tourism business: A systematic review. *Frontiers in Artificial Intelligence* 8, 1599391 (2025).
- [11] Shin, S., Kim, J., Lee, E., Yhee, Y., Koo, C.: ChatGPT for trip planning: The effect of narrowing down options. *Journal of Travel Research* 64(2), 247–266 (2025).
- [12] Hu, S.C.: Users' Perceptions Toward Applying Generative AI for Tour Itinerary Planning. *Business and Management Horizons* 13(1), 29–43 (2025).
- [13] Rejón-Guardia, F., Molinillo, S., Anaya-Sánchez, R.: AI hallucinations in tourism: How errors impact consumer trust and recommendation acceptance. *Journal of Consumer Behaviour*, 1–16 (2026).
- [14] Wang, S., Wang, Q., Cui, Q., Lan, T.: Artificial intelligence in tourism: A systematic literature review and future research agenda. *Sustainability* 17(20), 9080 (2025).
- [15] Bujdosó, Z., Vida, N., Máté, B., Nagy, K., Bringye, B.: The artificial intelligence usage and benefits in tourism marketing. *GeoJournal of Tourism and Geosites* 60(2), 1147–1157 (2025).
- [16] Chernev, A., Böckenholt, U., Goodman, J.: Choice overload: A conceptual review and meta-analysis. *Journal of Consumer Psychology* 25(2), 333–358 (2015).
- [17] Decrop, A., Del Chiappa, G.: Choice overload in consumer services: The mediating role of decision strategy complexity on subjective states and behavioral outcomes. *Journal of Tourism, Heritage & Services Marketing* 10(1), 48–55 (2024).
- [18] Karl, M., Reintinger, C.: Information overload and its consequences in tourism decision-making. *Tourism Management Perspectives* 20, 74–83 (2016).
- [19] Lu, C.C., Gursoy, D., Lu, C.: Antecedents and outcomes of consumer confusion in the online tourism context. *Tourism Management* 52, 76–89 (2016).
- [20] Li, J.: Does information overload attract or repel self-driving tourists? *Tourism Management Perspectives* 52, 101234 (2025).
- [21] Borràs, J., Moreno, A., Valls, A.: Intelligent tourism recommender systems: A survey. *Expert Systems with Applications* 41(16), 7370–7389 (2014).
- [22] Sharma, P., Rubina, T.: Recommender systems in tourism: A comprehensive scientific review. In: *Annual 31st ISC Research for Rural Development 2025*, vol. 40, pp. 317–325. Latvia University of Life Sciences and Technologies, Jelgava (2025).
- [23] Prasanna, A., Pushparaj, P., Kushwaha, B.P.: Conversational AI in tourism: A systematic literature review using TCM and ADO framework. *International Journal of Hospitality Management*, in press (2025).
- [24] Lasarov, W., Trabandt, M., Hoffmann, S., Viglia, G.: How practitioners can leverage GenAI to bridge the research–practice gap. *Tourism Management* 113, 105309 (2026).
- [25] Google: New ways to plan travel with AI in Search. The Keyword, <https://blog.google/products-and-platforms/products/search/agentive-plans-booking-travel-canvas-ai-mode/>, last accessed 2026/01/13.
- [26] Expedia: Put your trip on autopilot: Expedia Group introduces new AI-powered travel assistant Romie. Press Release, <https://www.expedia.com/newsroom/spring-product-release-2024/>, last accessed 2026/01/13.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

