

# **Beyond the Plate: A Systematic Literature Review on Consumer-Driven Food Waste in Hospitality**

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## Extended Abstract

Food waste has emerged as a central sustainability concern. Yet, hospitality research continues to focus more on operational and managerial explanations over the consumer behaviors that directly generate waste at the point of consumption. Although venues design menus, portion sizes, and service formats, plate waste often reflects diners' ordering decisions, consumption patterns, and responses to situational cues (Dolnicar & Juvan, 2019). Despite growing scholarly attention, research on consumer-driven food waste in hospitality remains fragmented, with limited integration of psychological, cultural, and contextual perspectives (Cardenas et al., 2024).

This study addresses this gap through a systematic literature review (SLR) and complementary bibliometric analysis of consumer-driven food waste in hospitality settings. Using the SPAR-4-SLR protocol, peer-reviewed empirical research published between 2016 and 2024 and indexed in Scopus and Web of Science was identified, screened, and filtered to yield a final corpus of 81 articles. To map the field's intellectual structure, a VOSviewer-based keyword co-occurrence analysis was conducted, allowing the identification of dominant thematic clusters and underexplored research areas (van Eck & Waltman, 2014).

The synthesis reveals four interrelated research clusters. The first focuses on plate waste patterns and service-format drivers, demonstrating that buffet layouts, all-inclusive pricing, and oversized portions consistently increase waste by encouraging over-selection and perceived value-maximization (Juvan et al., 2018; Tomaszewska et al., 2021). The second cluster represents the theoretical core of the literature, dominated by the Theory of Planned Behavior and the Norm Activation Model, which explain waste behavior through attitudes, norms, and perceived control (Schwartz, 1977; Ajzen, 1991; Elshaer et al., 2021). However, this stream repeatedly reports limited explanatory power in high-stimulation dining environments, where sensory abundance and social context weaken the consistency between intention and behavior.

The third cluster integrates emotional drivers, habits, and intervention responses, showing that guilt, concern, and ethical self-evaluation can motivate waste reduction when interventions are autonomy-supportive and embedded at decision points, but may trigger resistance when messaging is moralizing or repetitive (Antonschmidt & Lund-Durlacher, 2021; Chakraborty & Mattila, 2024). The fourth cluster situates food waste within macro-level disruptions and value reorientation, highlighting how crises such as COVID-19 temporarily reshaped service formats and consumer norms around waste and responsibility (Keskin & Acar, 2024).

Across clusters, consumer-driven food waste emerges as a multilevel phenomenon shaped by the interaction of service design, psychological mechanisms, emotional and habitual processes, and culturally embedded meanings of abundance and hospitality. Drawing on the Stimulus-Organism-Response framework, the review shows that dining environments function as behavioral stimuli that shape internal cognitive-affective states and subsequent waste-related behaviors (Mehrabian & Russell, 1974). Interventions such as portion customization, opt-out

take-away options, digital nudges, and subtle menu cues are most effective when they preserve consumer autonomy and align with local norms, rather than relying on awareness campaigns alone (van Herpen et al., 2021; Ong et al., 2023).

The study advances an integrated behavioral perspective that connects intention-based, moral, emotional, and contextual explanations of food waste in hospitality. It also outlines critical future research directions, such as longitudinal and experimental studies, cross-cultural comparisons, and technology-mediated interventions that have the potential to capture habit formation and persistence in behavior. By reframing food waste as a consumer-centric sustainability challenge, this review provides a theoretically grounded agenda to support hospitality scholarship and practice aligned with SDG 12.3.

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