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The moderating role of context in the effects of choice attributes on hotel choice: A discrete choice experiment

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HIGHLIGHTS

- This study examines the moderating role of context in the effects of choice attributes on hotel choice.
- A discrete choice experiment, based on a Bayesian D-optimal design, was conducted using MNL and RPL models.
- Leisure travelers with family were influenced by price and overall atmosphere.
- Business travelers emphasized room quality and a comfortable feeling.
- Incorporating choice context into a discrete choice model can increase understanding of hotel choice behavior.

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ABSTRACT

This study used discrete choice modeling to identify the moderating role of context in the effects of cognitive, affective, and sensory attributes on hotel choice. To evaluate a hotel consumer's choice for attributes in a different choice context (leisure vs. business), a stated preference experiment based on D-optimal design was conducted using both a multinomial logit (MNL) model and a random parameter logit (RPL) model. The results show that while leisure travelers' choices for family vacation trips were more influenced by price and overall atmosphere than were business travelers', business travelers put an emphasis on room quality and comfort when on a business trip alone. The study demonstrates the trade-offs made by leisure and business travelers when choosing a hotel through discrete choice modeling. The findings provide hotel managers with important insights and implications in terms of target segmentation, product development, and marketing communication strategy.

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1. Introduction

Understanding consumer choice behavior is crucial for effective service management and marketing success (Bettman, Luce, & Payne, 2008). The traditional rational choice view has evolved into the information processing model (Bettman, 1979), which views "consumers as rationally bounded, yet emotionally dispassionate, decision makers who logically evaluate alternatives in terms of trade-offs among product attributes" (Khan, Dhar, & Wertenbroch, 2005, p. 145). That is, the information processing model neglects the affective dimensions of choice (Holbrook &

Hirschman, 1982), but Bateson and Hoffman (1999) claim that affect plays an important role in how a customer will ultimately assess the service encountered and subsequently, the firm's overall quality and value. In sum, consumers process information rationally and experientially by using two conceptual systems: (a) a rational system and (b) an experiential system (Epstein & Pacini, 1999; Epstein, 2003).

Customer experience as a source of long-term competitive advantage is created by consistently exceeding both the customer's cognitive and emotional expectations (Shaw & Ivens, 2002). In particular, hospitality and tourism products are in essence experiential (Williams, 2006), and hotels need to create products and services that differentiate their brands from competitors in terms of experiential attributes (Dube & Renaghan, 1999; Dube, Bel, & Sears, 2003). To gain a full understanding of customer choice in the hotel context, it is important to examine consumer choice behavior

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through a thorough understanding of the interplay between a consumer's cognitive choice attributes and affective preferences based on the experiential view (Peterson, Hoyer, & Wilson, 1986). Based on previous research (e.g., Brakus, Schmitt, & Zhang, 2008; Darke, Chattopadhyay, & Ashworth, 2006), this study assumes that customer experiences that influence hotel choice are comprised of cognitive, affective, and sensory attributes.

Meanwhile, Bettman, Luce, and Payne (1998) suggested "the constructive choice view" in which consumer choice is highly dependent on context and contingent on consumer decision goals. As every choice is made within a decision context, the choice criteria for customer choices and decisions may vary depending on the decision context. Thus, depending on the choice context and/or situation, customers may have different criteria or preferences for choice attributes. Consumer beliefs about the relative value and importance of alternative decision criteria may be dynamic and subject to contextual influence (Kraus, 2000). That is, the value and importance of product differentiation depends on its perceived relevance to the choice context. Thus, it is necessary for researchers to clearly define the context in which customers are to assess choice sets in order to make meaningful decisions (Hensher, Rose, & Greene, 2005). With the exception of a few studies (e.g., Victorino, Verma, Plaschka, & Dev, 2005), previous hotel choice studies based on a stated preference experiment did not deal with different choice contexts (e.g., leisure vs. business). They also have not integrated and considered both cognitive and affective attributes as hotel choice attributes.

To address this research gap, this study examines how choice context influences the relative importance of cognitive, affective and sensory attributes in hotel choice. In particular, it compares hotel choice behavior according to two types of customers with different contexts (leisure vs. business). Through this process, differences in the choice attributes between two distinct contexts are identified. Specifically, this study examines the moderating effect of context that cognitive, affective, and sensory attributes have on consumer hotel choice in different choice contexts using a multinomial logit (MNL) model and a random parameter (or mixed) logit (RPL) model. Further, this study uses a Bayesian D-optimal design from the JMP 8.0 DOE (design of experiment) in contrast to the more traditional use of fractional factorial designs in tourism and hospitality literature. Also, this study aims to identify how hotel choice behavior is influenced by cognitive, affective, and sensory attributes. It identifies the differential role of the cognitive, affective, and sensory attributes on hotel choice. Thus, this study evaluates hotel consumers' different preferences in the hotel choice context (leisure vs. business). The findings may help hotel managers understand the trade-offs different types of consumers make when choosing a hotel.

The remainder of the article is arranged in three sections. The first section provides a literature review that consists of two parts. First, the theoretical literature that explains the influence of three types of attributes - cognitive, affective, and sensory - on hotel choice, and the moderating role of the choice context on the effects of choice attributes on hotel choice is reviewed. Then, the methodological literature of choice modeling that includes an overview of discrete choice modeling, as well as discrete choice analysis (MNL and RPL) methods is outlined. The second section covers the study methodology (e.g., Hoyos, 2010; Victorino et al., 2005). The final section presents the study's findings and discusses its theoretical and managerial implications.

2. Literature review

2.1. The effects of cognitive, affective, and sensory attributes

Previous research has conceptualized products as having two basic dimensions: cognitive and experiential (Erevelles, 1998). Any product can theoretically be positioned with a cognitive, symbolic, or experiential image since many brands offer a mixture of symbolic, cognitive, and experiential benefits (Park, Jaworski, & MacInnis, 1986). Cognitive-experiential self-theory (CEST), which is a dual information processing theory, provides a theoretical rationale for the usefulness of rational and experiential systems in information processing (e.g., Epstein, 1990, 2003). According to CEST, the experience system utilizes a quick and simple approach when processing information - relying on the information's "feel" to make judgments. This system operates in an automatic, associative, pre-conscious, and holistic manner and is associated with affective experience, whereas a rational system is logical, rule-based, sequential, process oriented, effortful, and conscious (Epstein & Pacini, 1999; Kahneman & Frederick, 2002).

In experiential marketing, the ultimate goal is to create holistic experiences that integrate individual experiences into a holistic gestalt (Schmitt, 1999). Pine and Gilmore (1998) and Schmitt (1999) proposed that consumers conceptualize their experiences as a blend of senses, affect, and cognition. Similarly, Bitner (1992) argued that customers' internal physiological, cognitive, and emotional responses to the servicescape cause them to approach (choose) or avoid service organizations (e.g., hotels and restaurants). Experiential marketers view consumers as both rational and emotional human beings with the motivation to achieve pleasurable experiences. Berry, Carbone, and Haeckel (2002) and Mascarenhas, Kesavan, and Bernacchi (2006) argue that companies compete best when they combine cognitive and affective attributes in their offerings because a customer experience consists of two categories: (1) the functioning of the good or service and (2) emotions and senses. That is, a total customer experience should have a blend of both physical and emotional elements along all stages of the customer experience and value chain (Mascarenhas et al., 2006). According to Orth and Marchi (2007), cognitive attributes offer the most intrinsic advantages for product consumption and usually correspond to product attributes that are linked to basic motivations. Affective attributes relate to how it feels to use the product. Yuan and Wu (2008) define experiential value as customer perceptions of products or services evoked through direct use or indirect observation and found that both cognitive and affective attributes (customer feelings such as enjoyment and relaxation) influence customer satisfaction.

To fully understand the customer choice model and consumption experience, it is necessary to integrate the experiential perspective (e.g., imagery, feeling, arousal, and senses) into existing choice models based on an information processing perspective (Holbrook & Hirschman, 1982; Peterson et al., 1986). Khan et al. (2005) argued that because they arose from different theoretical paradigms within consumer research and decision-making, affective and cognitive attributes represent independent product attributes and both perspectives have important implications for how consumers make trade-offs among these attributes depending upon the choice context.

In the hospitality literature, some studies found that both cognitive and sensory attributes influence repeat patronage and choice intention (e.g., Choi & Chu, 2001; Juwaheer, 2004). Choi and Chu (2001) found that service quality, room quality, and value were the three most influential attributes in determining a traveler's overall satisfaction and the likelihood of returning to the same hotel. Similarly, Juwaheer (2004) found that both sensory attributes (room attractiveness and décor) and cognitive attributes (reliability, assurance, hotel surroundings and environmental factors, and food and related factors) were important in hotel revisit intentions.

Several studies focus more on the importance of affective