The relevance of holistic website perception. How sense-making and exploration cues guide consumers' emotions and behaviors ☆

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ABSTRACT

A multitude of single cues determines consumers' emotional responses to business-to-consumer (B2C) websites. This study suggests that it is imperative to more holistically evaluate websites following the Gestalt approach. Consistent with the landscape model of preference, this study argues that consumers prefer online settings that are high in sense-making and exploration potential as they make consumers feel good and increase their confidence level. The results of two empirical studies indicate that the holistic perception of online settings enhances emotional reactions and leads to desired behavioral outcomes.

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1. Introduction

An increasing number of consumers shift their buying activities from physical stores (e.g., fashion stores, travel agencies) to retail and travel websites. The reasons for this changed purchase behavior range from lower prices, greater convenience, and time savings, to better product and service selection available on the websites. Market researchers project that B2C e-commerce sales in the US alone will reach a 10% compound annual growth rate (CAGR) between 2013 ($231 billion) and 2017 (projected to be $370 billion). Expectations on the e-commerce growth rate in Europe are fractionally higher over the same period, although the overall market is obviously smaller. Europe's online retail sales will hit $247.1 billion by 2017, up from $165.6 billion in 2013, representing a 10.5% CAGR (Forrester Research, Inc., 2013). The growth of online sales forces companies to differentiate their online stores from their competitors (Verhoef et al., 2009).

Marketing academia has acknowledged the increasing relevance of online commerce and examines how to create loyal customers through effective web-design. The vast majority of existing research predominantly focuses on consumers' website perceptions with respect to single cues and investigates, for example, the influence of site structure and content (Harris & Goode, 2010; Richard, Chebat, Yang, & Putrevu, 2010; Richard, 2005), perceived ease of use (Childers, Carr, Peck, &

Carson, 2001; Porter & Donthu, 2006), informativeness (Mazaheri, Richard, & Laroche, 2011; Richard et al., 2010), esthetic formality and esthetic appeal (Porat, Liss, & Tractinsky, 2007; Wang, Hernandez, & Minor, 2010), entertainment (Mazaheri et al., 2011; Richard et al., 2010; Rosenbaum, 2005), and flow-experience (Dargel & Williams, 2002; Hoffman & Novak, 1996; Williams & Dargel, 2004) on consumer responses. Williams and Dargel (2004), for instance, suggest a comprehensive conceptual model built on Bitner's (1992) servicescape model. Rosenbaum (2005) extends the work of Williams and Dargel (2004) and conceptualizes the elements of cyberspace by defining eleven constructs in the stimulus section and analyses whether the level of expertise and socialization of Internet users influences their purchasing decisions. While Rosenbaum (2005) and colleagues, however, use a considerable number of single dimensions that are not specifically driven from theory, this study follows the overarching theory of Gestalt to explain the underlying mechanism of consumers' website perceptions.

Gestalt theory has its roots in German psychology and is associated with psychologists, such as Wertheimer (1938), Koffka (1935) and Lewin (1947). A Gestalt refers to a system, in which its constituent parts all interrelate, such that the characteristics of the whole determine the characteristics of each part. An alteration of one part leads to an alteration of all other parts and the whole itself (Wertheimer, 1938). Gestalt psychologists claim that studying perception using single cues is insufficient as breaking down consumers' perception into single parts would mean to lose sight of the perception itself (Schiffman, 2001). In fact, they regard visual perception as global and holistic, integrating it with human behavior and, therefore, call for a dynamic and organizational interpretation of perception. Research suggests that

informing preferences or choice judgments, consumers care less about single cues in form of physical attributes than about the benefits they gain from the product (Ratchford, 1975). In other words, they are more concerned about whether the medicine cures what hails them, than the physical attributes (ingredients) that constitute the medicine (Singh, Dalal, & Spears, 2005).

To date, only a scant body of marketing research transfers this logic to online settings and accounts for the fact that consumers perceive online environments holistically. The studies of Demangeot and Broderick (2010), Lee and Kozar (2009), and Rosen and Purinton (2004), for instance, apply Kaplan and Kaplan's (1982, 1989) landscape preference model, which emphasizes two basic needs that are crucial for holistic perception: The need to make sense of an environment and the need to explore an environment (Kaplan & Kaplan, 1989). More specifically, individuals tend to prefer places where they feel competent and confident, that is, places where they can make sense of the environment while they also engage in it. Human perception, in this regard, does not focus on single elements of an external environment, but on the organization of the space (Rosen & Purinton, 2004) because the organization of space delivers the essential information to the observer, and indicates whether s/he could function well in that space (Kaplan & Kaplan, 1982). Following a Gestalt approach thus helps to draw a more comprehensive and realistic picture of consumers' website perception than a single cue approach and helps managers to understand consumers' mental processes and how to design user-friendly pages in order to address these needs.

Additionally, it is important to acknowledge consumers' emotions for website design. Emotions play an amplifying role in consumer decision making because emotional responses toward an environment mediate consumers' interaction with an online environment. Thus, emotions often determine the consumer's choice of websites when purchasing online (Deng & Poole, 2010). Based on emotion research (e.g., Mehrabian & Russell, 1974; Russell & Pratt, 1980) this study proposes that because an individual's affective system is judgmental, it assigns positive or negative valence to an environment. In doing so, this study applies the well-established model of environmental psychology by Mehrabian and Russell (1974) to online settings, and suggests that sense-making and exploration website cues are important design factors that affect users' initial emotional responses toward a website and subsequently facilitate desirable responses of consumers. While several researchers (Ha & Lennon, 2010; Huang, 2003; Mummalaneni, 2005; Porat et al., 2007; Wu, Cheng, & Yen, 2008) have already adapted Mehrabian and Russell's (1974) model to online contexts, they focused on selected aspects of the website, but did not account for a more holistic view of perception.

This study, therefore, addresses the mentioned gaps by making two important contributions. First, it develops and tests a conceptual model that accounts for consumers' holistic perception of websites. More specifically, this research draws on the logic of Gestalt theory in that it develops and tests a second-order measurement model of consumers' website perception. Holistic, in this study's understanding, refers to the fact that it is the total configuration of cues that determines consumers' responses to a setting (Mattila & Wirtz, 2001). Kaplan and Kaplan's (1989) landscape preference model helps to classify the stimuli that consumers are confronted with into a dimension of sense-making and exploration. Second, the study combines Gestalt theory with emotion theory and links it to attitudinal and behavioral responses of consumers (i.e., satisfaction with the website and loyalty intentions). The authors draw on the notion that holistic website perception elicits positive emotions and subsequently influences consumer outcomes.

This article proceeds as follows. Following this introduction, Section 2 describes the study's conceptual framework of holistic website perception and its underlying hypotheses. Section 3 presents Study 1 that analyzes and advances the second-order structure of the sense-making potential and exploration potential. The study draws on Demangeot and Broderick's (2010) work and thereby validates the

holistic nature of consumers' website perceptions. Study 2 develops and tests a web-Gestalt model in an empirical study and relates consumers' emotional states and behavioral outcomes to consumers' website perceptions. The paper closes with a summary and outlines implications for marketing theory and practice.

2. Theoretical framework and hypotheses

2.1. Theoretical background and development of the concept of holistic website perception

Two streams of literature help to establish the conceptual background of this study. These include literature in environmental psychology and literature that addresses the visual preference for external environments.

2.1.1. Environmental psychology approach

Mehrabian and Russell's (1974) environmental psychology model serves as a theoretical framework for this study that is based on the stimulus–organism–response (S–O–R) paradigm. According to the S–O–R paradigm, Mehrabian and Russell (1974) explain how external stimuli affect consumers' internal states and lead to a variety of consumer responses (Sherman, Mathur, & Smith, 1997). Fig. 1 presents the S–O–R model that this study adapts to the current website perception context.

The S–O–R paradigm suggests that a set of emotions (PAD: pleasure, arousal and dominance) mediates a consumer's approach or avoidance behavior to an environment. Pleasure refers to the degree to which someone feels good, joyful, happy, or satisfied with a situation; arousal is the degree to which a person feels excited, stimulated, alert or active; and dominance is the extent to which the consumer feels in control of a situation. Previous research finds that dominance has little or no significant effect on consumer behavior (Russell & Pratt, 1980; Donovan & Rossiter, 1982). Therefore, consistent with recent research, this study does not further consider the dominance dimension (Eroglu, Machleit, & Davis, 2003; Menon & Kahn, 2002; Wu et al., 2008).

2.1.2. Visual preference for external environments

Research suggests that people respond to environments as entities in an integrated way. Although individuals may perceive single cues of an environment, the total configuration of cues determines their responses to a setting (Mattila & Wirtz, 2001). Gestalt theory and, more basically, Kaplan and Kaplan's (1989) landscape preference model provide a theoretical foundation of how people holistically perceive online settings. Information is the basic notion (Kaplan, 1992) as Gestalt theory proposes that individuals derive necessary information through the content and the organization of the environment. The need to gain information helps one to make sense of an environment, thus providing individuals a feeling of security about what is going on around them and helping them find their way. Making sense is not enough to cause an individual to seek out places. Individuals are also more likely to enter environments if they receive promising information that encourages their exploration. Thus, in addition, individuals want to explore environments by seeking more information and looking for new challenges (Kaplan, Kaplan, & Ryan, 1998). Consistent with Kaplan and Kaplan (1989), this study proposes that consumers prefer online environments that they can easily understand and that they can easily engage with.

Making sense in this regard refers to the ability to comprehend, to keep one's bearings, and to understand what is going on in a setting, while exploration refers to the ability to figure out, to learn, and to be stimulated (Kaplan & Kaplan, 1982). During an interaction with an external environment, time perception also plays a significant role. Individuals quickly assess environments on the basis of immediate space perception, and long-term space perception. Rosen and Purinton (2004, 789) explain this perception process as "standing at the garden