Research paper

The impact of the social servicescape, density, and restaurant type on perceptions of interpersonal service quality[☆]

Lydia Hanks [a,*], Nathan Line [a], Woo Gon (Woody) Kim [b]

[a] Dedman School of Hospitality, Florida State University, 288 Champions Way, UCB 4114, Tallahassee, FL 32306, United States
[b] Dedman School of Hospitality, Florida State University, 288 Champions Way, UCB 4116, Tallahassee, FL 32306, United States

ARTICLE INFO

ABSTRACT

The purpose of this study was to investigate how density in the servicescape affects the three interpersonal dimensions of Stevens et al., (1995) DINESERV conceptualization of service quality (responsiveness, assurance, and empathy) across various restaurant types. Using the framework of information processing theory, it was predicted that when a customer uses density to evaluate anticipated service quality, the information processing style will vary depending on the restaurant context. For fine dining restaurants and sports bars, it was predicted that customers will use heuristic processing, but would use systematic processing when evaluating a family casual restaurant. A 3 (contextual service norms) $\times$ 2 (built density) $\times$ 2 (human density) between subjects factorial design was employed. The results identified a three-way interaction between human density, built density, and restaurant type, suggesting that the type of restaurant does indeed matter when considering how density impacts potential customers' perceptions of a restaurant.

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1. Introduction

Research of the consumption environment and its role in the service delivery process has had a significant effect on the hospitality industry. Beginning with Bitner's (1992) definition of the servicescape as consisting of the physical elements of a consumption environment (e.g., spatial layout, functionality, comfort, etc.), research in this stream has consistently shown a positive effect of the servicescape on consumption behavior (Han and Ryu, 2009; Heung and Gu, 2012; Liu and Jang, 2009; Ryu and Jang, 2007). More recently, research of the consumption environment has shifted to the study of the social servicescape (e.g., Jang et al., 2015; Kim and Lee, 2012; Line et al., in press; Miao and Mattila, 2012). While the traditional conceptualization of the servicescape construct focuses more on the physical aspects of the service space, the social servicescape provides an account of the other social entities (i.e., the other customers) in the consumption environment (Tombs and McColl-Kennedy, 2003); and like the physical servicescape, the

social servicescape can also significantly affect consumer behavior (Line et al., in press).

However while research of both the physical servicescape and the social servicescape has become common, relatively few studies have considered these phenomena simultaneously. Accordingly, the purpose of the present research is to investigate the intersection of the physical and social servicescapes by looking at density in the consumption environment. In the physical servicescape, the density construct refers to the built environment – that is, the net amount of seating and other furniture relative to the overall space in the environment. Conversely, density in the social servicescape refers to the number of other individuals simultaneously sharing the consumption space. By exploring the interactions between these two types of density, this research can be seen as bridging the gap that has heretofore prevented a holistic consideration of the servicescape on service expectations.

Broadly speaking, the premise of this research is that built density and human density can affect customers' perceptions of the interpersonal aspects of service delivery. However, because different categories of restaurants have dramatically different service norms, it is suggested that the extent to which density in the servicescape will affect service perceptions will likely vary according to the contextual norms of the service establishment under consideration. For example, some types of restaurants, such as bars or fine-dining establishments, have relatively well-defined service delivery models. For other types of restaurants, such as casual or

family restaurants, service norms are more ambiguous. Based on the tenets of information processing theory (Chaiken, 1980, 1987; Petty and Cacioppo, 1986), the premise of the present research is that when information pertaining to the service of a particular establishment is heuristically processed (i.e., in establishments with well-defined service norms) density in the servicescape will not affect anticipated service quality. However, when information is systematically processed (i.e., in establishments with less well-defined service norms) density will significantly affect consumers' expectations of service delivery.

As a part of the seminal conceptualization of the servicescape model, Bitner (1992) proposed that the layout of the service environment could affect employee behavior. In turn, observations of this servicescape-driven behavior are used by customers to form service expectations. This suggests that consumers base their perceptions of restaurant service, at least in part, on cues emanating from both the physical and social servicescapes. In order to better understand how these evaluations translate into service expectations, the interactive effects of two forms of density (i.e., built density and human density) are considered in terms of their effect on each of the three interpersonal dimensions of Stevens et al., 1995 DINESERV conceptualization of service quality (responsiveness, assurance, and empathy). The results provide several important implications for restaurateurs interested in managing servicescape density in specific dining contexts.

2. Literature review

2.1. Human density

A densely populated environment is a commonplace occurrence in many hospitality and tourism contexts such as restaurants, bars, hotels, and theme parks (Kim et al., 2009b). Human density refers to the number of people in a given physical space (Stokols et al., 1973). The level of human density in an environment can impact a number of consumer perceptions in both positive and negative ways, depending upon the type of venue and the customer's expectations for that venue. Some prior research has found that crowding can have a positive effect on customer perceptions and evaluations, particularly at an event for which there is an expectation of large groups (Eroglu and Harrell, 1986; Mowen et al., 2003; Pons et al., 2006). For example, when attending a major league sporting event such as a football or baseball game, or at a large outdoor music festival, the presence of crowds can enhance the experience for the focal customer. Conversely, however, when people encounter a crowded environment in a venue that they did not expect to be crowded or densely populated, they may experience negative emotions (Whiting and Donthu, 2009) such as anger, distrust, and contempt (Eroglu et al., 2005). Crowding and density may also have a negative impact if the focal customer perceives that the crowds will adversely impact his or her ability to achieve goals or receive good service. High levels of density have been found to result in a negative consumer experiences across various contexts such as banks, bars (Hui and Bateson, 1991), restaurants (Robson et al., 2011) and airports (Mattila and Hanks, 2012). In addition to impacting emotions, densely populated environments have been demonstrated to influence other aspects of the consumer experience, such as decision-making, variety-seeking, and purchase selections (Levav and Zhu, 2009). Crowded environments can also affect length of stay (Eroglu et al., 2005; Hui and Bateson, 1991), avoidance behaviors, revisit intentions, satisfaction, and spending levels (Eroglu et al., 2005; Machleit and Eroglu, 2000; Machleit et al., 1994; Noone and Mattila, 2009).

More recent research has demonstrated that a densely populated environment also impacts customer perceptions about others in the service environment. For example, O'Guinn et al. (2015) found that the human density in the service environment impacts customers' perceptions of the characteristics of the other customers, such as class level and social status. However, while research exists regarding the effects of density in the social servicescape, there has been comparatively less research on the effects of density on consumers' perceptions of the interpersonal aspects of the service. To bridge this gap, one of the main purposes of this paper is to explore the influence of human density on the customer's perception of the interpersonal characteristics of the service employees as they relate to the ability to provide high quality service.

2.2. Built density

The density of humans in the consumption space is not the only potential determinant of service expectations. In addition to human density, the built density of the service environment may also affect consumer perceptions of service quality. For the purposes of this study, built density is defined as the density of furniture and fixtures in the servicescape. A significant body of prior work has examined the effects of the physical environment on the perceptions of the consumer (e.g., Baker, 1986; Bitner, 1990, 1992; Wakefield and Blodgett, 1999). Bitner's (1992) seminal work on the servicescape identifies three elements of the physical service environment: ambient conditions, signs/symbols/artifacts, and spatial layout. While such elements certainly affect the consumer's perception of the service environment itself, these factors have also been robustly demonstrated to impact the consumer's perception of seemingly unrelated service attributes, such as service quality. For example, prior research suggests that the consumer's perception of the servicescape has a direct and significant impact on the perception of service quality (Wakefield and Blodgett, 1999). Moreover, elements of the physical environment, such as design, can change both the consumer's evaluation of the reliability of the service (Rust and Oliver, 1994) and his/her beliefs about the quality of the service (Rys et al., 1987).

This study is specifically focused on the dimension of the servicescape known as "spatial layout," which refers to the furniture and other physical features of the service environment in terms of arrangement, the size of these elements, and the spatial relationships between them (Bitner, 1992). This construct is operationalized as a function of the density of the furniture and fixtures in the servicescape – in other words, the number of tables and chairs in the restaurant and their proximity to each other. This study investigates the effect of the built density on the perception of service quality across three different restaurant segments with differing service norms; fine dining, family casual, and bar.

2.3. Contextual service norms

Restaurant establishments can be classified into many different segments (Bujisic et al., 2014), and in addition to the features that are common across segments, each restaurant segment possesses certain unique characteristics that differentiate it from other types of restaurants. While there is no universally accepted account of restaurant segmentation, several classification schemes have been suggested in the hospitality literature (e.g., Goldman, 1993; Jones and Lockwood, 1998; Muller and Woods, 1994). For example, Muller and Woods (1994) identified five categories: quick service, midscale, moderate upscale, upscale, and business dining. Walker (2007) suggested the categories of quick service, fast casual, family, casual, fine dining, and other. In addition to these broad categories, restaurants can be further segmented into subcategories such as sports bars, celebrity restaurants, steakhouses, theme restaurants, and many more.