

MEDIATION AND MODERATION EFFECTS IN CROWDED SERVICE SETTINGS EVALUATION: THE ROLE OF EMOTIONS AND SCARCITY

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ABSTRACT

This paper explores both the potential role of scarcity in moderating the relationship between consumers' density in service settings and satisfaction and the mediating role of emotions in this relationship. Using an experimental design and manipulating perceived scarcity and density levels in a service setting, the results confirm the mediating role of emotions and show an interaction effect between scarcity and density suggesting that consumers, in a crowded setting, are more satisfied in a scarce than non-scarce situation.

INTRODUCTION

Crowding is described as an important environmental factor in consumers' evaluations of their retail experiences [1] [2] [3] [4] [5]. Indeed, most of the studies dealing with this topic underline the negative consequences triggered by crowded situations for individuals or consumers [4] [7]. Additionally, and from a managerial standpoint, crowd management issues have become a growing concern.

Recent studies [16] [6] suggest that the negative relationship between the perceived retail crowding and the satisfaction with the service experience may not be as simple as commonly accepted. For instance, these studies underline the importance of considering different types of crowding (human versus spatial) when interpreting results on a crowd's impact. They also insist on the need to consider situational variables when studying the relationship between crowding and satisfaction.

One potential variable that has received limited attention from the researchers is the extent to which the service encounter represents a scarce event for the consumer. Therefore, this study aims at exploring the potential role of scarcity in moderating the relationship between crowded settings and consumer satisfaction.

LITERATURE REVIEW

Crowd, Density and Emotional Reactions

Studies dealing with the impact of crowds in retail environments support the negative impact of crowded situations on shopping behaviours [3] [6] [7]. In the retail crowding model [2], consumer density is presented as the main driver of service satisfaction, with crowding defined as a negative affective evaluation of a dense situation. Crowding effects appear to be particularly strong when individuals are in a utilitarian shopping situation [8]. As suggested by several authors [9] [10], the negative effects of density lead individuals to unpleasant outcomes. Therefore, perceived crowding is strongly and positively correlated with negative emotions and negatively correlated with positive. Indeed, dense situations seem to decrease feelings of pleasure [8] [6] and increase tension and arousal [5]. Previous studies in environmental psychology dealing with emotional reactions to shopping environments also underline the key role of these emotions in explaining future behaviour (and satisfaction) with the retail situation [11] [12]. Therefore, emotions are often presented as potential mediators of the relationship

between perceived density and satisfaction with the service encounter [6]. Consequently, we hypothesize:

Hypothesis 1: Human density has (a) a negative influence on pleasure and (b) a positive influence on arousal.

Hypothesis 2: Pleasure has (a) a positive influence on satisfaction and (b) arousal has a negative influence on satisfaction.

Scarcity and the density-satisfaction relationship (hypotheses 3 and 4).

Scarcity has often been described in research on crowding as a potential explanation to increased density and crowd is often considered as a cue of a scarce situation [14] [15] [16]. This interrelationship appears to be an important aspect of the density-satisfaction relationship. We propose in this paper that scarcity is in fact more than a rationale for crowding, but it can also be seen as an added value for the consumer in a dense context. Therefore, an adequate combination of scarcity and density may reduce both the negative impact of a dense shopping situation on pleasure and the positive impact of density on arousal

METHODOLOGY

Research Design, Sample and Measures

In this study, the level of scarcity of the situation and the density level are manipulated independently, and their effects are studied. Written scenarios and video stimuli are used to operationalize these variables. The scenarios were written by the researchers, reviewed by experts and pretested. Four groups are necessary to implement the experimental design planned. As undergraduate students were chosen, 30 introductory business courses with at least 30 students registered were randomly selected. The final sample has 860 respondents (4 groups of 215 respondents). A self-administered questionnaire was used to gather the data. All the items were measured on a 7-point Likert scale. Perceived density was measured using an estimation of the number of people in the retail setting. The perceived human and spatial crowding were measured using Machleit et al's scale (1994). In addition, several items capturing the dimensions of pleasure and arousal (PAD) were used to evaluate the emotional reactions to the situation encountered.

RESULTS

Scarcity should ease this state or reduce the level of arousal as it offers a justification, an attribution and even an added value to the experience. However, a counterintuitive finding shows the absence of this moderating effect of scarcity on the density-arousal relationship. A potential explanation cited in previous studies using arousal can be that the items used to capture arousal in the context of our study are actually tapping excitement more than an actual state of stress or tension. The second and main finding of the study really deals with the ability of scarcity to alter crowding perceptions and consumers' satisfaction with the service experience. Scarcity can easily be controlled and even artificially created by managers in their stores. Unlike several other moderating variables identified in the crowding literature (personal or cultural), scarcity can become a crowd management tool. Our study demonstrates the ability of scarcity to turn a potentially dense and negative situation into a dense but positive experience for the consumer. Based on our results, it is achieved through decreasing the lack of pleasure felt by consumer in a dense situation. It also appears that the scarcity game does not have to be played when the density is low, as it does not improve the consumers' experiences. Finally, in the dense and scarce situation only the perceived human crowding is reduced. On the other hand, in the same situation, there are no changes in the level of perceived spatial crowding. These results suggest the importance of signals sent by the crowd to potential customers. Scarcity can be considered as one of these cues or signals, and future research along this line is critical.

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