

Perceived Crowding and Tourism: Promotion and Prevention Reactions

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Abstract:

This article addresses how perceived crowding impact expectations of tourists in Norway. A survey is used to collect data from more than 900 respondents. The project includes the development of a model capturing antecedents of cruise port attractiveness in a crowding context. We measure destination acceptability in terms of promotion vs. prevention reactions towards levels of crowding at the destination. Structural equation modelling reveal that the promotion and prevention reaction is negatively and positively influencing crowding and destination expectation. However, the promotion and prevention reaction influence destination acceptability somewhat differently and with varying intensities.

Key words: *perception of crowding, promotion and prevention reaction*

INTRODUCTION

Large cruise ships can bring up to 7.000 passenger to a destination. Therefore, cruise tourism is often criticized for negatively impacting destinations [1]. Case studies show that one main negative effect of large cruise ships is related to perceived people density leading to experiences of crowding [2].

Perceived density and crowding is heavily studied in outdoor recreation [3-5] while tourist crowding caused by cruise ships is, to our knowledge, only studied in a few instances [6]. Contributing to fill this void, this research imparts a model of how cruise port appeal is affected by varying dimensions of perceived density, tolerances of fellow visitors and perceived crowding.

Perceived crowding has received increased research attention because it is found to influence customer satisfaction and loyalty [7-9]. Previous retail research has found that impact of crowding on consumer behavior is complex and the empirical results reveals mixed results [8-10]. Studies at a festival [11], in a restaurant [12], and at an event [13] show that crowding may sometimes enhance experiences by creating an exciting atmosphere. Expected retail crowding levels and tolerances of queuing are also found to vary among people from different cultures [14-16]. However, research is required to understand the effects of perceived crowding on behavioral outcomes in cruise ports.

In the next section a theoretical background of the density and crowding construct is outlined.

Then, a conceptual model is presented and empirically tested among visitors at three different cruise ports.

LITERATURE REVIEWS

Research indicates that there are dissimilar reactions to the same places, as tourists have varied social interests, desires, motives and goals, and thereby divergent expectations towards destination. Some holidaymakers like to socialize in destinations with many visitors, while others seek tranquil places and what they perceive as genuine local societies.

The concept of perceived crowding:

Crowding among humans have been depicted by Hall [17], who defined personal space as a small protective sphere or bubble that a human maintains between herself/himself and others. If this protected sphere is threatened, then the human defence system creates fear and anxiety [18]. Therefore, crowded settings are found to trigger anxiety, high arousal, low experienced pleasure, and other prevention responses [19].

In social psychology, crowding is conceptualized as a “psychological state characterized by stress and having motivational properties” [20, p. 304]. The motivational properties activate thoughts and behavioral reactions that help individuals to achieve some desired end-states balancing out some stress reactions from assessed crowding. The means to balanced stress

from social stimulation often involves activation of prevention or promotion reactions.

In the context of tourism in cruise ports, one may distinguish between social and spatial density and crowding [21-22]. Social density can be regarded as estimates of the number of people present in a place and feelings of stress related to violations of the personal space [17]. Spatial density, on the other hand, denotes a feeling of blocking and loss of control caused by physical fittings and material hindrances. Appraised crowding, however, is understood as perceived social and spatial density compared to desired or accepted levels [23].

Perceived density may create stressful mental stimulations and sway crowding judgements when some personal thresholds are exceeded [24]. Schmidt and Keating [25] explain this as stimulus overload and argue that people are feeling crowded when they are overwhelmed by the attendance of other people or by the condition of the physical environment at a given area. Crowding can be defined as a negative (but also positive) assessment evoked by a certain density level in a given area [26].

Violations of personal proximity activates the amygdala, the brain region known to be involved in social promotion and prevention reactions [27]. Thus, negative response from crowding and from too close proximity to inappropriate fellow visitors (i.e., out-group individuals) may lead to *prevention reactions*. These are typically worries about many people getting too close, feelings of unsafety in large gatherings, reactions to high sound levels, and what might be seen as improper behavior among fellow visitors (e.g., due to cultural or social differences in group behavior). Exceeded thresholds can boost negative arousal as well as physical and mental withdrawal from the place. Socially crowded environments lead to activation of the neuro-psychological prevention system, which results in people adapting a more prevention focused mindset [19].

Visitors vary in terms of how aroused they become and how much affect (+/-) they might experience from massive crowding. Collectively oriented tourists may not at all report negative activation or emotional stress from extensive crowding [28]. In fact, some persons who regard social interaction positively display positive judgements of people concentrations. Thus, high people density may evoke a positive emotional response among some leisure travelers leading to a pleasant *promotion reaction*. The latter is commonly related to the phenomenon of social botanizing [29]; an interest in people-watching. It is a mental emotive state that certain visitors enjoy; to fix their eyes on both fellow visitors and locals in the places they arrive at. Such visitors presumably have a higher acceptance of and even a preference for large numbers of heterogeneous people.

Conceptual research model

We hypothesize that the cognitive and affective attitudinal mindsets (prevention vs. promotion focus) triggering variances in appraised crowding will mediate the relationship between dimensions of perceived social density and the judged acceptability of three minor Norwegian cruise ports.

METHODOLOGY

This study look at how tourists assess crowding in three cruise port areas in Norway. In the next sections, we present the method and the results.

Sample: The questionnaire were randomly distributed to available leisure travelers. A screening question confirmed that respondents were leisure travelers. Some 1338 persons were identified as potential respondents and were asked to fill in the self-completion questionnaire. Of these, 341 declined to participate and 20 questionnaires were discarded because they were incompletely filled in. This produced 977 valid questionnaires, corresponding to 73% of those visitors who were asked to take part.

Measures: The variables used for the study included the items traditionally applied to measure perceived crowding and expectations towards the cruise destination. Perceived crowding was measured using a nine-point Likert scale with the end-points “not at all crowded” (1) and “extremely crowded” (9) [30]. The single-item crowding scale is easy to answer and has been used in more than 181 different studies of outdoor recreation research [4-5]. The expectations towards the cruise port area was measured by a single-item five point Likert scale with the end points “disagree” (1) and “agree” (5) [31]. Using single-items indicators to represent a construct has its pros and cons [32].

Items of the promotion reaction (six items) and prevention reaction (four items) variables were derived from studies by Carver and White [33], Higgins, Roney, Crowe, and Hymes [34], Sengupta and Zhou [35], and Maeng, Tanner, and Soman [19]. The visitors' perception of destination adaptation (four items) were partly developed based on the personal interviews and partly inspired by Jacobsen [36], Urry [37], and Walter [38].

RESULT

To test the model, structural equation modeling (SEM, using LISREL 8.80) was conducted.

Structural equation model: The SEM analysis identifies the relationships between the prevention, promotion, and destination adaptation items upon perceived crowding and place expectations [39]. The results indicate that the SEM model fits the data:

$\chi^2 = 617.04$; $df = 92$; $p < 0.01$; $NFI = 0.95$; $CFI = 0.96$; $GFI = 0.98$; $CN = 348.15$; $RMSEA = 0.055$. All test measurements met the requirements of a well-fitting model. The results indicated that destination adaptation reduces prevention reactions ($\beta = -0.43$, $t = -6.73$, $p < 0.01$) and increases promotion reactions ($\beta = 0.58$, $t = 9.28$, $p < 0.01$) as an indirect effect operating via perceived crowding assessments upon judgments of a cruise ports. We find that promotion and prevention reactions impact assessed crowding with a negative relationship (prevention: $\beta = -0.18$, $t = -6.88$, $p < 0.01$) and a positive relationship (promotion: $\beta = 0.49$, $t = 8.29$, $p < 0.01$). The increasing promotion reduces the negative valence of the assessed crowding, creating a more favorable assessment. Conversely, increasing prevention boosts the negative valence of the crowding, creating a more unfavorable assessment. The negative impact induced by increased prevention is stronger than the positive valence impact of increased promotion upon crowding. Furthermore, crowding affects destination expectation with a direct negative effect ($\beta = -0.09$, $t = -3.81$, $p < 0.01$). Finally, destination adaptation affects destination expectations with a direct negative effect ($\beta = -0.10$, $t = -2.47$, $p < 0.01$).

Analyses of the indirect effects were executed. First, the indirect effect of relationships between destination adaptation, promotion reaction, and perceived crowding were calculated: $-0.43 \times -0.18 = 0.077$. Then, the indirect effect between destination adaptation, prevention reaction, and assessed crowding were calculated: $0.58 \times 0.49 = 0.285$. Since the indirect effect of destination adaptation-prevention-crowding (0.284) is larger than the destination adaptation-promotion-crowding (0.077) relationship, then assessed crowding is more linked to the negative prevention reaction among the respondents.

DISCUSSIONS AND CONCLUSIONS

This paper investigate the impact of perceived crowding on holidaymaker expectations through the role of promotion and prevention. The assumption is that perceived crowding is influenced by both a promotion reaction and a prevention reaction. The findings show that the promotion reaction influences visitor expectation indirectly by positively effecting perceived crowding. Likewise, the results show that prevention reactions influences visitor expectation indirectly by negatively effecting perceived crowding. These results suggest that for some visitors, numerous fellow vacationers can be a positive part of a destination experience, which is in line with some earlier studies in other contexts [11-12, 40].

The study also indicate that arrival numbers in cruise ports should be controlled and managed because prevention reactions can give negative

responses to visitors. These negative results of perceived crowding are consistent with retail industry studies [9], tourism sector research, and consumer behaviour studies [19].

In the present paper, cognitive as well as affective likes and dislikes (promotion and prevention reactions) of dense environments are found to mediate crowding assessments. Thus, motivation for acceptance of crowding and social interaction is varied. Quite a few cruise passengers, on the other hand, seem to like chatting with fellow travelers including compatriots, partly because of limited language proficiency beyond their native tongue.

A place that have become dominated by adaptation to tourism have been termed "tourist bubble" [41-42], a touristic world of its own. For instance, visitors to North Cape (in northern Norway), where numerous cruise passengers turn up, construe the cape as mainly a postmodern place, dominated by collective enjoyment, as people applaud, toast one another, talk, and take photographs [43]. North Cape is thus perceived as less authentic by some individual travelers [44]. How tourists react to and judge concentrations of callers is previously studied also in terms of social carrying capacity and visitor acceptability [31]. Accepting visitor numbers beyond social carrying capacities may involve stress evoked by gatherings of many heterogeneous visitors, which negatively influences views on both fellow visitors and locals. Studies of social carrying capacity often reflect an individualistic-romantic tourist perspective that is linked to the belief that "tourism destroys tourism", that tourism itself ruins places and thus annihilates qualities that originally attracted visitors, recently termed over-tourism. This is particularly prevalent when features that originally attracted tourists become dominated by offers later developed specifically for tourists [45].

Limitations and future research

Limitations in this study include variations at the selected destinations that were not covered by a limited number of interview days. However, differences in responses between a warm day and cool could be noteworthy, and also visibility differences (e.g. low clouds). The same goes for mood variations, as a positive mood have been found to yield a higher acceptance of perceived crowding.

Future research could explore other constructs and other relationships with respect to perceived crowding. Manning [46] suggests that research on crowding should focus on dimensions of (1) the situation, (2) of other tourists, and (3) personal characteristics. It could be interesting to study different crowding situations in tourism and compare them. One option is to study a larger

number of different cruise ports and compare them with perceived crowding.

Future studies could take into consideration cultural variations by including visitors from both individualistic and collectivistic cultures [47]. Other tourists at a destination could influence the perception of crowding. If the other tourists are perceived as similar to oneself, then, one might tolerate crowding better compared to situations where the crowd is perceived as different (out group) [48]. Finally, as constructs like density, perceived density, perceived crowding, human crowding, spatial crowding, and social crowding are used interchangeably [9, 49], a further conceptual development might be desirable.

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