İSTANBUL UNIVERSITY PRESS

Istanbul Business Research

Istanbul Business Research,
IBR 2025, 54 (2): 232–254

https://doi.org/10.26650/ibr.2025.54.1380827

Submitted: 25.10.2023
Accepted: 26.07.2025

Research Article

Open Access

The impact of employee responsiveness on perceived crowding outcomes: Evidence from Türkiye as an emerging market

Hülya Bakırtaş [1]

[1] Aksaray University, Faculty of Economics and Administrative Sciences, Department of Management Information Systems, Aksaray, Türkiye

Abstract This study explores the role of employees as a possible influencer in tempering consumers' crowding outcomes. The research was conducted in the context of Türkiye, an emerging market characterized by a collectivist culture. This research fills a gap in the existing literature on the cultural influences on the retail environment and consumer behavior interactions. The proposed conceptual model is empirically analyzed using data from a field survey of over 500 consumers intercepted at a shopping mall in Bursa, Türkiye. Findings show that employee responsiveness plays a mediating role between consumers' crowding experience and their patronage intentions and satisfaction. In contrast to previous results, findings in the Turkish cultural context indicate a positive relationship between retail crowding and shopping outcomes, including customer satisfaction and behavioral intentions (repurchase and recommendation). Moreover, employee responsiveness had a non-significant moderating effect. This study contributes to the previous literature on the impact of culture on consumers by examining the link between retail crowds and shopping outcomes in a developing country. This relationship is well demonstrated in the marketing literature, but primarily in the context of developed economies.

Keywords Cultural influences · Customer satisfaction · Employee responsiveness · Perceived crowding

Citation: Bakırtaş, H. (2025). The impact of employee responsiveness on perceived crowding outcomes: Evidence from Türkiye as an emerging market. *Istanbul Business Research*, *54*(2), 232-254. https://doi.org/10.26650/ibr.2025.54.1380827

Corresponding author: Hülya Bakırtaş hbakirtas@aksaray.edu.tr

1. Introduction

Among the various physical environmental conditions that determine consumer behavior, one factor continues to attract both practitioner and academic interest: crowding. Firmly rooted in the environmental psychology literature, crowding has since been embraced by many services and marketing academics (Mehta 2013; Santini et al., 2020). The summary findings from numerous studies show that, with a few exceptions (Pons et al., 2014; 2016; Hui & Bateson, 1991; Eroglu et al., 2005), high levels of crowding perceived by patrons in a commercial outfit can have a significant negative influence on their purchasing behaviors as well as the resulting shopping outcomes therein, such as satisfaction, re-patronage intentions, and purchasing experience satisfaction (Machleit & Eroglu, 2000; Eroglu et al., 2005; Pons et al., 2016).

An examination of this literature, however, shows that the search for potential influencers of retail crowding effects is biased toward two issues. First, most research favors factors that are either contextual or consumer-related. The missing element in this literature is the attention to *employee-related influence*s as potential moderators of retail crowding effects, a plausible factor which might help to temper the undesirable effects of retail crowding. Studies on crowding explicitly show the various social implications of consumer behaviors under these conditions. For example, individuals who feel that their personal space has been invaded because of the high density of human beings will act to protect themselves from potential threats from others (Lang & Bradley, 2008), avoid interactions (Cain & LeDoux, 2008), and result in narrowing their construal level (Maeng & Tanner, 2013). Similarly, the services marketing literature shows that the social component of employee performance is a critical determinant of consumers' perceived service quality (Bitner, 1990; Bitner et al., 1990) and customer satisfaction (Mohr & Bitner, 1995).

Second, evident in this expansive literature is the bias toward mostly Western advanced economies as the study context, at the expense of developing and emerging markets without considering the strong impact of culture (Santini et al., 2020). However, limited studies have been conducted on the subject. Findings from a comparative study conducted in Turkish and American college dormitories, results have shown significant differences between the two groups, with the Turkish students showing much higher tolerance for crowding than their American counterparts (Kaya & Weber 2003). Given this evidence, coupled with the higher than average scores of the Turkish culture on the "collectivist" dimension of Hofstede (2001), the findings should not be surprising. In collectivist cultures, consumers tend to experience less stress in crowded stores, as they place a higher value on social interaction and connectedness (Anninou et al., 2018). Consequently, a higher degree of tolerance is displayed toward the crowd (Whiting & Nakos, 2008). Culture influences individuals' perceptions of crowding and responses to crowding. In this context, some cultural indicators of a society (individualism vs. collectivism, social norms and expectation, urban vs. rural etc.) lead to the differentiation of crowding perception and behavior. This neglect of the subject is surprising for two reasons. First, emerging economies now make up a rapidly rising percentage of global GDP, particularly for global retailers, as they increasingly seek to expand their markets across cultures (Cavusgil et al., 2021). Second, these contexts provide fertile grounds for testing the generalizability and validity of knowledge produced in advanced economies and offer new research avenues to expand the information base in the area.

In light of the above, this study explores two questions. The questions are as follows: 1) If and how employee responsiveness can ameliorate the undesirable consequences of crowding experienced by their customers, and 2) If the demonstrated negative impact of retail crowding and shopping outcomes holds true within the context of an emerging market (Türkiye). Findings from the service literature show that cus-

tomer-employee interaction is one of the most important factors influencing customer satisfaction (Bitner et al., 1994; Mehta, 2013). In accordance with social facilitation theory (Zajonc, 1965), favorable customer perceptions of store employees can substantially shape consumers' overall attitudes toward the store and influence their shopping behavior (Tombs & McColl-Kennedy, 2010).

As such, our study extends the literature on salesperson effects on the realm of store atmospherics, specifically, to the condition of crowding. This issue is of considerable significance and has potential implications for research and management. In exploring the likely influence of employee responsiveness due to its potential influence on consumers' perceived crowding and their subsequent shopping outcomes, our decision to concentrate on this particular quality of salespeople is motivated by three factors. First, extant research has identified employee responsiveness as among the most pivotal factors contributing to the satisfaction of customers (Parasuraman et al., 1991; O'Neill & Charters, 2000). Second, as demonstrated in extant research, the responsiveness of retail service providers has a substantial impact on consumers' evaluation of the retail sector (Klemz & Boshoff, 2001). The subsequent study found that responsiveness plays a crucial indirect role in shaping purchase willingness, primarily by affecting consumers' perceptions of empathy. Finally, responsiveness is a trainable attribute of store personnel that can be enhanced through targeted training and incentive programs, allowing management to exert influence over its development. Management considers employee responsiveness the most valuable quality in a salesperson and one that is also highly controllable (Kumar et al., 2015).

2. Literature review

A large body of literature exists in environmental psychology that explores the influence of density (and its resultant, crowding) on human cognition, affect, and behavior. In the past three decades, this work has been transferred to marketing to examine the implications of crowding experiences on consumer behavior in the retail context. The marketing literature has now amassed considerable work with the overall conclusion that, yes, the retail setting can play a strong effect on consumers' behaviors in commercial domains as well as their evaluations of their overall experience (e.g. see Turley & Milliman, 2000; Baker et al., 2002). An in-depth understanding of consumer-environment interactions can significantly enhance managerial decision-making regarding the ambient and social dimensions of service settings (Kumar et al., 2015).

Among these environmental variables, crowding has emerged as a prominent factor that has attracted substantial scholarly attention, especially within retail and service contexts (e.g. Eroglu & Machleit, 1990; Eroglu et al., 2005; Hui & Bateson, 1991; Machleit et al., 1994). Studies have greatly expanded the knowledge on the impact of density in retail settings (Huang et al., 2017; Pons et al., 2014, 2016).

Crowding is an experience that results from the density perceived in a given amount of space. Density, in turn, refers to a physical condition alluding to the number of persons and configurations in the given space. Whereas density refers to the measurement of spatial parameters (Stokols, 1972), perceived crowding denotes the negative psychological response individuals experience in densely populated environments (Stokols, 1972; Hui & Bateson, 1991). As such, density is a necessary but insufficient condition for crowding (Eroglu & Harrel, 1986). Table 1 presents a review of the literature on retail crowding, its antecedents, and consequences.

Table 1

Summary of crowding research

Author(s)	Objective	Sample/Research methods	Main findings
Blut and Iyer (2020)	To summarize and extend the consequences of crowding in literature. The study also reviews current literature on crowding.	Consumers/Secondary data	This study provides evidence regarding the different effects of crowding dimensions on consumer satisfaction and behavioral responses. In addition, the study revealed that the indirect effect of crowding occurs through different mediators. Moreover, this study indicates different effects of crowding depending on various factors.
Hock and Bagchi (2017)	To examine the effects of human crowding on calorie consumption.	Consumers and students/ Secondary data, survey and experiment	This study demonstrated that crowding leads to higher calorie consumption and sheds light on the underlying reasons for this increase.
Zehrer and Raich (2016)	To empirically examine a model that captures the effects of perceived crowding and coping behaviors on customer satisfaction.	Visitors/Survey	Perceived crowding is influenced by various factors, including customers' demographic characteristics. Both perceived crowding and these coping responses negatively impact customer satisfaction.
Pons et al. (2014)	To examine how individuals behave in crowded utilitarian environments and explore the role of scarcity in the density-dissatisfaction relationship	Students/Experiment	The scarcity of the situation can reduce consumers' negative experiences in crowded retail environments. In addition, affective states mediate the relationship between density perceptions and negative reactions.
Mehta (2013)	To explore whether the relationship between perceived retail crowding and consumers' approach behavior follows an inverted U-shaped pattern.	Consumers/Survey	Consumers' patronage intentions are maximized at an optimal level of perceived crowding, with this relationship being mediated by the emotional response of pleasure and the overall evaluation of the store.
Pan and Siemens (2011)	To explore the impact of retail density and time pressure on consumers' evaluations of a store and their intended behaviors."	Consumers/Experiment	consumers tend to favor a moderate level of crowding over environments with either low or high crowding, with the relationship between crowding and outcome variables found to be linear.
Jones et al. (2010)	To examine effect of crowding perceptions, emotions, and shopping values affect consumer satisfaction	Consumers/Experiment	Culture serves as a moderating factor in the relationship between perceived spatial crowding and consumer satisfaction, with the negative impact of spatial crowding being more pronounced among American consumers compared to their Australian ones.

Author(s)	Objective	Sample/Research methods	Main findings
Li et al. (2009)	To examine the impact of different dimensions of perceived crowding on consumer shopping behaviors in an international market context, emphasizing the mediating effects of emotional responses and perceived satisfaction.	Consumers/Survey	Perceptions of crowding have a positive impact on consumers' emotions and satisfaction levels.
Mattila and Wirtz (2008)	To explore how environmental stimulation contributes to impulse buying while also assessing the effects of two key social factors—perceived crowding and employee friendliness—on consumers' tendency to make unplanned purchases.	Consumers/Survey	Perceived overstimulation positively influences impulse buying behavior, whereas employee assistance serves as a moderating factor in the relationship between perceived crowding and impulse purchasing.
Eroglu et al. (2005)	To examine the extent to which shopping values are affected by perceived crowding and to determine whether these values mediate the relationship between perceived crowding and shopping satisfaction.	Adults and students / Survey	Perceived crowding influences shopping values, with this relationship being moderated by individual tolerance for crowding, the duration of the shopping experience, shopping intentions, and purchase occurrence. Moreover, emotions mediate the impact of perceived crowding on shopping values. When these mediating variables are considered, human crowding is found to have a positive effect on shopping satisfaction.
Dion (2004)	To examine the relationship between personal control and crowding	Consumers/Experiment	The social crowding process is affected by personal control; however, the spatial crowding process is not affected.
Macheit et al. (2000)	To explore the association between perceived crowding and customer satisfaction.	Students and adults / Survey and experiment	Emotions serve as a mediating role in the relationship between perceived crowding and consumer satisfaction. Increased levels of perceived crowding are associated with decreased satisfaction. In addition, this relationship is moderated by factors such as prior expectations of crowding, individual tolerance of crowding, and type of retail environment.
Eroglu and Machleit (1990)	To examine the antecedents and consequences of perceived crowding	Adults/Experiment	Under conditions of high retail density, both perceived risk and time pressure intensify individuals' perceptions of crowding.

Author(s)	Objective	Sample/Research methods	Main findings
Harrell et al. (1980)	To examine the effects of adaptation strategies and the outcomes of physical density and perceived crowding. First published study on crowding in marketing.	Consumers/Survey	Perceived crowding affects shopping behavior and consumers' feelings.

Research has indicated that crowding that customers perceive affects them in various ways, reduces their shopping satisfaction, causes deviations from planned shopping experience by spending less money than anticipated, or even causes them to leave the store without purchasing (Eroglu & Machleit, 1990; Hui & Bateson, 1991; Eroglu et al., 2005). The crowding experience may lead consumers to reduce exploratory shopping behaviors, overlook low priority items, and constrain social interactions (Kim et al., 2016; Huang et al., 2017). For instance, in a study conducted by İplik (2005) on supermarket consumers in Adana province, it was found that consumers' perception of crowding changed depending on time pressure and shopping motivation, and that the crowding and time pressure perceived by consumers reduced their satisfaction level during the shopping experience. This study revealed a positive correlation between consumers' time pressure and their perception of crowding. In addition, the results indicated that customers who were task-oriented had a higher perception of crowding than those who were not task-oriented. Göktuğ and Arpa (2015) discovered the effect of crowding on recreation experience quality. Their study revealed that an increase in visitor numbers during weekends led to longer queues and reduced the adequacy of service facilities. Consequently, the satisfaction levels of weekend visitors were lower compared to those visiting during the week. Furthermore, the quality of their recreational experience was diminished. In a study conducted by Mert (2015), it was found that the relationship between the complexity of city life and the need to satisfy needs creates the inevitable experience of the contradiction between quiet and crowds together, and the concept of the indispensability of shopping malls is prioritized in consumers' shopping experience, even though it is not desired by consumers. Shopping malls offer food, entertainment, sports, and various recreational services, allowing consumers to spend their leisure time in a safe and comfortable environment. They attract people from all segments of society, regardless of income or education levels, and are often preferred because they promote a sense of social sharing. The marketing advantages offered by shopping malls, their physical characteristics, and the promotional activities conducted are the main factors determining the preference of these places (Cengiz & Özden, 2002; Vural & Yücel, 2006). In sum, in-store crowding is typically perceived as highly arousing (generally in an unfavorable way), and, as a means of avoiding overstimulation, consumers tend to shorten their shopping duration and modify their behaviors, such as avoiding impulse purchases and browsing. Thus, the crowding experience has consequences for customer evaluations of retail encounters in terms of satisfaction and repatronage intentions. As explained previously, although H_1 and H_2 hypotheses have already been demonstrated by previous literature and are not our main focus here, we tested them in our study to explore if these relationships, proven mostly in the context of developed, Western economies, would still hold in a non-Western, emerging country with a different cultural context (the Turkish market). Given the expectation that crowding perceptions are likely to differ across cultures (Evans et al., 2000), we set out to test this claim with the hope of expanding knowledge in the area. Based on the above literature review, the model proposes the following:

H_1: Perceptions of crowding impact consumers' shopping satisfaction.

H_2: Perceptions of crowding impact consumers' behavioral intentions.

In addition to its spatial dimension, crowding has a social dimension that has a powerful impact on consumer behaviors and outcomes. The social environment of a retail venue consists of two main groups: Customers and employees. Our focus here is on the latter, not only because this is a relatively neglected area of research but also because, unlike customer behaviors, employee behaviors are largely under management control. The underlying premise of our study is that the employee-consumer interactions might play a significant role in tempering the negative consequences of perceived crowding experienced by customers in a service setting.

Overall, the marketing literature emphasizes that service interactions should be understood as "social encounters" rather than "economic exchanges" (Czepiel, 1990), highlighting that due to the intangible nature of services, customers often depend on employee behavior as a key indicator when evaluating service quality (Shostack, 1977). Research also shows that consumers' negative experiences in commercial domains can be improved by positive service orientations and behaviors of the service personnel (Whiting, 2015). However, in crowded environments, individuals may try to gain a sense of control over their personal space by reducing their engagement with others (Sommer, 2009). Social avoidance theory proposes that individuals avert their gaze from others as a means of minimizing the likelihood of unwanted social interactions (Evans & Wener, 2007), thus inhibiting the flow of aversive inputs from their immediate social environment. Yet, social connectedness theory argues that people have a fundamental need to belong, and when situations endanger that need, they have a powerful human motive to maintain it by forming others. In circumstances where a sense of connectedness is diminished, individuals tend to seek out new social bonds with others (Baumeister & Leary, 1995). Thus, individuals who experience interpersonal setbacks have an increased desire to reconnect with others who seem desirable (Mead et al., 2011). Customers' personality traits (introverted or extroverted), shopping motivation (task-oriented or recreation-oriented), shopping value (hedonic or utilitarian), time pressure, physical characteristics of the shopping place (narrowness, temperature level, bad smell, etc.), as well as events, promotions, and entertainment held in the store, create social avoidance or social connectedness toward the store in individuals (Albrecht et al., 2017; İplik, 2005; Kusumowidagdo et al., 2015). This is where certain employee qualities can be critical.

Empirical research on both service quality and service satisfaction affirms the importance of customer-employee interactions in the assessment of overall service quality and satisfaction with services (Bitner et al.,1990). To the extent that service employees possess qualities deemed desirable by customers, they can influence customer satisfaction and other transaction outcomes, such as re-patronage intentions and attitudes toward the retailer and purchases made therein.

The question now turns to which employee qualities can affect consumers' satisfaction and shopping outcomes, thus yielding to the literature on salesperson effectiveness and satisfaction. While employee friendliness and reliability (Mattila & Wirtz, 2008) are shown to be strongly desired qualities, one that consistently tops the list across many studies: Responsiveness. Employee responsiveness relates to several behaviors including provision of prompt service, willingness to help, being alert to and anticipating customers' needs and the desire to keep them informed. Parasuraman et al. (1988; 1991) contended that responsiveness is the most important factor in exceeding customer expectations, and Roberts et al. (2003) validated this contention. Another study revealed that responsiveness rates were highest in terms of the overall performance measure and service quality dimension (O'Neill & Charters, 2000). A study on the fast food service industry shows that among all possible influencers of customer satisfaction, employee responsiveness is the most important quality (Andaleeb & Conway, 2006). Bitner (1990) provided empirical

evidence that appropriate employee responses can transform service failures into satisfactory customer experiences, even when the failures stem from breakdowns in the delivery system. Brown and Maxwell (2002) stated that, from the customer's viewpoint, responsiveness—alongside assurance and empathy—is among the most important indicators of performance.

One study is especially critical because it linked employee responsiveness to consumers' environmental assessments (Klemz & Boshoff, 2001), providing empirical evidence that the extent of in-store personnel responsiveness leads to more positive consumer evaluations of the retail environment, subsequently resulting in higher purchase intentions. The study also indicates that employee responsiveness affects willingness-to-buy by working through customers' perceptions of employee empathy. Similarly, responsiveness generates positive outcomes by reducing temporal costs because timely service is particularly valuable to today's time-pressed consumers. Retailers can shape perceptions of responsiveness by ensuring that store visits are as efficient and brief as possible (Klemz & Boshoff, 2001).

Naylor and Frank (2000) explored this relationship between timeliness and responsiveness and argued that employee responsiveness can result in at least two types of cost/benefit outcomes for customers: Temporal and psychic. Timely responsiveness from employees helps consumers save time; however, when employees fail to respond adequately, customers experience increased time costs. The psychological benefits associated with the responsiveness dimension have been explored in the context of direct selling. Crosby et al. (1990) demonstrate that in repeat-contact sales relationships—such as those in life insurance—responsiveness, particularly through the expression of a willingness to assist customers, plays a crucial role in sustaining long-term sales relationships, enhancing sales effectiveness, and fostering expectations of future purchases. Similarly, Bitner et al. (1990) highlighted the significance of employee responsiveness in shaping customers' outcome perceptions within the service context. This study reveals that the general employee contact category generates the highest frequency of positive customer responses. Unsolicited actions by employees, such as offering special attention, providing unrequested services, and displaying politeness without being overbearing, are among the most prominent features of service encounters that are particularly memorable and lead to customer satisfaction. It also finds, however, that a lack of employee responsiveness (e.g. rudeness, giving signs of being bothered by the customer, ignoring customers or slow service) can lead to memorable dissatisfactory service encounters. These results lead us to believe that responsiveness likely plays a significant role in shaping customer satisfaction with and intention to patronize a retailer, especially under stressful conditions of high crowding.

While employee responsiveness has been shown to be an influencer of shopping outcomes, previous research has identified various situational factors that might affect its manifestation within the retail context. One such condition is the potential impact of the physical environment on employee attitudes and behaviors. Both environmental psychology and organizational behavior literature examine the physical influences on employee behaviors and show the effects of relevant factors, such as workplace design, ambience, privacy and congruence (Sundstrom et al., 1996). Given our focus here, we are primarily interested in the evidence on how density (and the resultant crowding experience) can affect employee attitudes and behaviors, particularly, their responsiveness. Relevant work in the area has shown that workplace privacy (both visual and acoustic) and the extent of social interaction in the venue can affect employee productivity, performance, and satisfaction (Wineman, 1982). Skandrani et al. (2011) found that several store environmental factors affected employee behaviors, among which the extent of crowding was major. Similarly, the concept of environmental load and work on the antecedents and consequences of crowding in the retail

setting leads to the potential impact of crowding on employee behaviors, such as responsiveness (Bitner, 1992; Bitner et al., 1994; Eroglu & Machleit, 1990; Machleit et al., 1994).

In addition, studies show how the consumer's retail experience may be enhanced or hidden by other inhabitants (consumers and employees) may enhance/hinder her experience (Dion, 2004; Kim & Kim, 2012). This is found to be especially true under conditions of crowding, which triggers a negative influence on customers' perceptions and satisfaction (Van Rompay et al., 2008). These findings suggest that high levels of density in a store that negatively affect the behaviors of both employees and customers might conceivably result in employees showing lower (higher) levels of responsiveness, which are then reflected in consumers' unfavorable (favorable) evaluations of their own retail experience

The foregoing discussion leads us to the following hypotheses to establish the expected relationship between customers' crowding perceptions, employee responsiveness, and shopping outcomes.

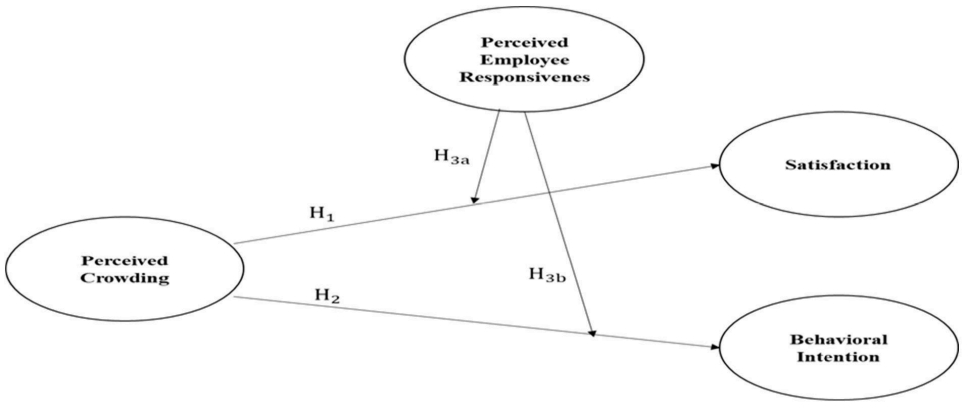
H_3: Perceived employee responsiveness moderates the relationship between perceived crowding and shopping outcomes (i.e., satisfaction and behavioral intentions).

$H_{3a:}$ Perceived employee responsiveness moderates the relationship between perceived crowding and shopping satisfaction.

H_{3b}: Perceived employee responsiveness moderates the relationship between perceived crowding and behavioral intentions.

The proposed conceptual model is presented in Figure 1. The model is rooted in the crowding literature as well as the work in services and sales domains, in particular, drawing from social avoidance and social connectedness theories.

Figure 1
Conceptual model



3. Method

This research focuses on consumers who purchase apparel. Because it was not possible to observe all possible samples of the universe, a convenience sampling method was used. It is not possible to determine an exact number for the universe; thus, it was determined to be unknown, and the sample size was evaluated accordingly. In this study, the minimum sample size to be achieved according to Cochran's (1977) sample size formula was 384. The data were collected using a survey technique. The survey was answered verbally by five people, and any unclear statements were corrected. The data were collected in a large shopping mall in

Türkiye (Bursa City) during the period of July to September, at the same time zones (morning, noon, and early evening) on a daily basis, in order to ensure maximum randomness and heterogeneity of the respondents. The shopping mall was designed in accordance with European Standards, and its architectural structure has been rewarded. Moreover, the fact that it is located in the very center of the city and is considered a meeting point for all age groups due to its ease of access has been effective in selecting this shopping mall for the study. With the management's consent, the author organized a table at a location that was more centrally situated within the shopping mall, in close proximity to the apparel retailers. This strategic positioning enabled her to engage with consumers as they exited the stores. Participants who agreed to participate were requested to complete the survey. The researcher requested that participants share their experiences by clarifying that their responses would be kept anonymous and that the data would contribute to the fulfillment of her research objectives. Participation in the survey was voluntary, and no incentives were provided to encourage participation. A total of 507 participants were included in the study, with the majority (68%) being female. The mean age of the participants was 25 years or older (%76), and 60% of the participants were enrolled in higher education.

There are four latent variables in this study, all of which were measured using a 7-point scale. *Perceived Crowding (PC)* was adapted from the studies of Machleit et al. (1994) and Li (2004) and consists of three items. *Perceived Employee Responsiveness (PER)* was adapted from Hu and Jasper (2006) and consists of two items. *Behavioral Intentions* (BI) *to patronize* are derived from Jones and Reynolds (2006) and consist of two items. *Shopping Satisfaction (S)* was derived from the research conducted by Babin et al. (1994) and Eroglu and Machleit (1990) and consists of two items. These scales consist of two items, based on the outcomes of the preliminary assessment.

4. Results

A confirmatory factor analysis (CFA) was conducted in order to assess the validity and reliability of the measurement model, and a good fit was found (Table 2). Research conducted by Bagozzi and Yi (1988) determined that the composite construct reliability (CCR) of all scales exceeded 0.60. As demonstrated in this study, the Cronbach's alpha for each construct exceeded 0.70, a critical point that Nunnally (1978) recommended. This finding provides evidence in support of the internal consistency of the scales. The average variance extracted for all scales in this study exceeded the recommended critical value of 0.50 (Fornell & Larcker, 1981). The factor loading values of the latent constructs varied between 0.70 and 0.92. The findings indicated that the scales demonstrated both convergent validity and reliability. Furthermore, the acceptable fit and goodness-of-fit indices vary depending on the index. As indicated in the extant literature, the acceptable fit of the indices is as follows: i) for $\chi 2/df$, $2 < \chi 2/df < 5$; ii) for RMSEA, $.05 < RMSEA \leq .10$; iii) for GFI, $.90 \leq GFI < .95$; iv) for AGFI, $.80 \leq AGFI < .90$; v) for NFI, $.90 \leq NFI < .95$; vi) for NNFI, $.95 \leq NNFI < .97$; vii) for CFI, $.90 \leq CFI < .97$ (Kelloway, 1998; Engel - Schermelleh et al., 2003; Hooper et al., 2008; Fan et al., 1999; Byrne; 2001; Berthon et al., 2005).

Table 2

Measurement model

Construct	Stand. loading	AVE	CCR	α
PC		***0.62***	***0.83***	***0.82***
PC1	0.84			

Construct	Stand. loading	AVE	CCR	α
PC2	0.80			
PC3	0.73			
PER		***0.74***	***0.85***	***0.85***
PER1	0.80			
PER2	0.92			
BI		***0.65***	***0.78***	***0.77***
BI1	0.72			
BI2	0.88			
S		***0.59***	***0.72***	***0.72***
S1	0.70			
S2	0.80			
χ^2=	35.13			
χ^2/df (21)=	1.67			
NFI=	0.99			
NNFI=	0.99			
CFI=	1.00			
GFI=	0.98			
AGFI=	0.97			
RMSEA=	0.04			

The discriminant validity analysis was performed on the two models. The first model enabled the existence of the covariance, while the second model restricted it. A comparison is made between the χ^2 values of the two models. Following the comparison, the critical value at the .05 significance level with 6 degrees of freedom is 6 χ^2 .05 = 12.592. Given that 627.17 > 12.592, this finding shows that discriminant validity is present between all of the model's constructs ($\Delta\chi^2$= 627.17, Δ df = 6, p= 0.05).

As explained in the section on the conceptual model, the study was tested for the possible moderation effect that employee responsiveness (PER) might have on the relationship between perceived crowding (PC) and the two shopping outcomes, satisfaction (S) and behavioral intentions (BI).

The first stage of the moderation testing process involved conducting a correlation analysis. The results of this analysis are presented in Table 3, which indicates that PC, PER, S, and BI are correlated. Hierarchical linear regression analysis was then conducted to determine the moderating effects of PER. Table 4 presents the hierarchical regression results of the PC, PER, and S analyses. As reported in Table 4, PCs accounted for 23 percent of the variance in satisfaction (see Model 1). When the variable of PER was added to the regression, the independent variable increased to 29 percent of the variance (see Model 2). Finally, following the addition of the interaction variables (PC and PER) to Model 3, it was determined that two independent variables had become significant, while the interaction variable had become non-significant.

Table 3

Correlation analysis results

	PC	PER	S	BI
PC	1			

	PC	PER	S	BI
PER	0.455**	1		
S	0.478**	0.440**	1	
BI	0.291**	0.253**	0.449**	1

Not **p< 0.01.

The results in Table 4 of Model 3 indicate the same R^2 found in Model 2. To minimize the risk of multicollinearity resulting from the correlation between PC and PER, the variables have their mean centered. Consistent with expectations, the main effects of PC and PER positively and significantly affected S (β_1 = 0.23, t = 8.34; β_2 = 0.20, t = 6.64 see Model 2). The parameter estimate for the interaction term was not significant (β = 0.16, t = 0.97) indicating that PER does *not* moderate the impact of PC on satisfaction. Thus, H_{3a} was rejected. As for the impact of perceived crowding on satisfaction, as Model 1 shows, the effect itself was supported. Thus, H_1 was partially supported.

Table 4

Results of the moderated regression analysis

Independent variables	Satisfaction		
	Model 1	**Model 2**	**Model 3**
PC	0.31 (12.25*)	0.23 (8.34*)	0.23 (8.35*)
PER	-	0.20 (6.64*)	0.20 (6.66*)
PCXPER	**-**	**-**	**0.16 (0.97)**
R^2	0.23	0.29	0.29
Adjusted R^2	0.23	0.29	0.29
R^2 Change	0.23	0.06	0.001
F	149.94*	103.4*	69.24*

Notes: Nonstandardized regression coefficients are reported with t-values in parentheses.

As reported in Table 5, PC accounted for nine percent of the variance in behavioral intention (see Model 1). This is an interesting finding which exactly mirrors the finding for H_2, where once again, the effect was supported and crowding was found to have a positive influence on shopping patronage intentions. Thus, H_2 was partially supported. When PER was added to the regression, the independent variable increased to 10 percent of the variance (see Model 2). Finally, following the addition of the interaction variables (PC and PER), it was determined that two independent variables had become significant, while the interaction variable had become non-significant within the regression model 3.

Table 5

Results of the moderated regression analysis

Independent variables	Behavioral intention		
	Model 1	**Model 2**	**Model 3**
PC	0.13 (6.84*)	0.098 (4.69*)	0.098 (4.55*)
PER	-	0.072 (3.21*)	0.072 (3.20*)
PCXPER	**-**	**-**	**0.001 (0.108)**
R^2	0.09	0.10	0.10
Adjusted R^2	0.08	0.10	0.10
R^2 Change	0.09	0.02	0.00
F	46.80*	28.97*	19.28*

Notes: Nonstandardized regression coefficients are reported with t-values in parentheses.

The results shown in Table 5 for Model 3 indicate the same R^2 per Model 2. Consistent with expectations, the main effects of PC and PER positively and significantly affected S (β_1 = 0.098, t = 4.69; β_2 = 0.072, t = 3.21 see Model 2). The parameter estimate for the interaction term was not significant (β = 0.00, t = 0.11). This indicates that PER does not moderate the impact of PC on BI. Thus, H_{3b} was rejected. Figure 2 and Figure 3 show the graphical illustration of our results with respect to the moderating effect. Figure 2 and Figure 3 show that PER does not moderate the impact of PC on S and BI, respectively. According to Figure 2 and Figure 3, PER has a positive but insignificant effect on both satisfaction and behavioral intentions.

Figure 2

Moderating effect PER in the relation between PC and S

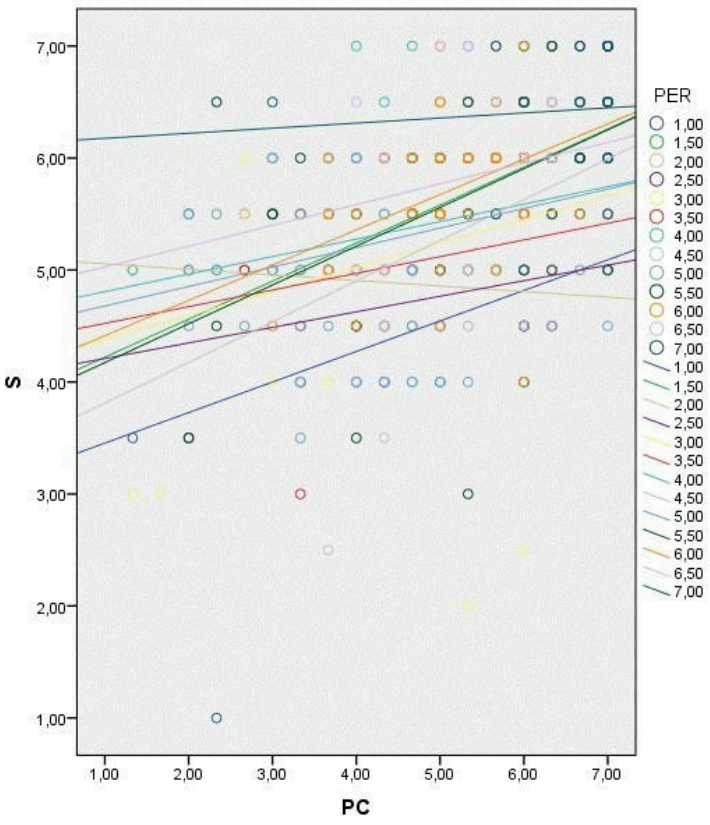
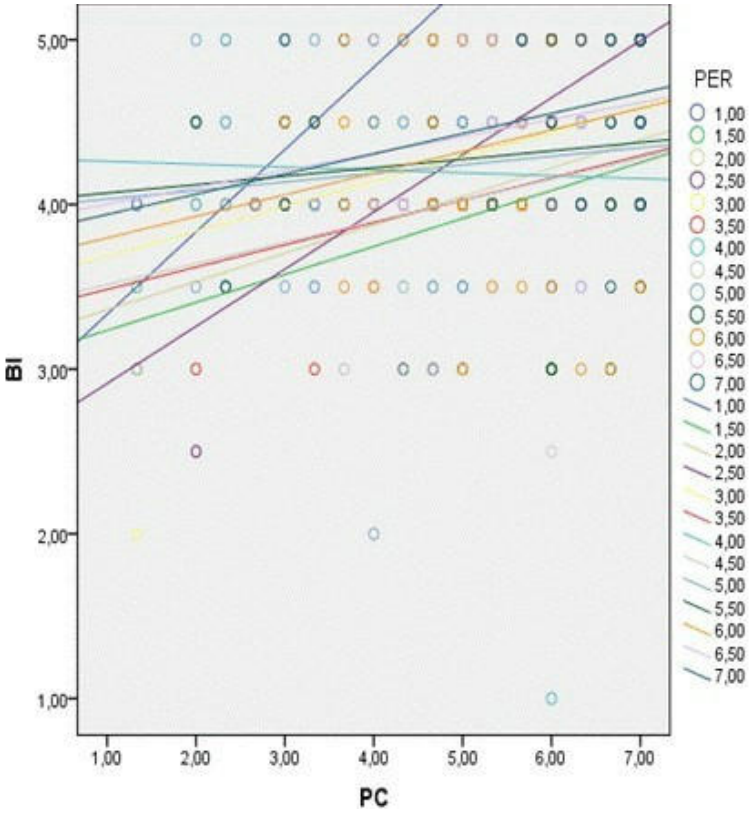


Figure 3

Moderating effect PER in the relation between PC and BI



An additional issue was the follow: If PER does not moderate the impact of PC on S and BI, or can it possibly mediate it? The analysis was conducted according to the process developed by Hayes and Scharkow (2013), although this was not the focal question in the study. The indirect relationship between PC and S was significant (indirect effect = 0.08, 95% bootstrap CI from 0.05 to 0.12). The direct effect of PC on S was also significant (direct effect = 0.23, 95% bootstrap CI from 0.17 to 0.28). Hence, the findings show that PER partially mediates the relationship between PC and S. Similarly, the indirect relationship between PC and BI also emerged as significant (indirect effect = 0.03, 95% bootstrap CI from 0.01 to 0.05) as well as the direct effect of PC on BI (direct effect = 0.10, 95% bootstrap CI from 0.06 to 0.14). In summary, these findings demonstrate that PER partially mediates the PC-S and PC-BI relationships.

5. Discussion and conclusion

This study examines the role of employees in perceived crowding within the context of Türkiye, an emerging market whose national culture is different from that of its advanced, Western counterparts. The findings of this study highlight that perceived crowding in a retail setting differs in emerging and advanced markets. The findings demonstrate, first, that, in contrast to the evidence from studies conducted in advanced economies, the negative relationship between consumers' perceived crowding and their shopping outcomes does *not* hold in the context of this emerging market. This is an important finding that is significant and promising. The positive effect of perceived crowding on shopping results is a valuable finding that should be interpreted based on the cultural and demographic characteristics of the sample. In collectivist cultures such as Türkiye, crowded stores are considered a source of less stress because social interaction

and connectedness are valued more highly. Consequently, the tolerance level for crowding was higher. Furthermore, a crowded store can also function as a motivator for shopping rather than a source of discomfort. Crowded stores are perceived as signals of popularity and the value they offer to their consumers. Moreover, the majority of the sample consists of women and university students, which also supports this finding. Crowded shopping environments may be viewed more positively by young and female consumers who tend to associate them with social interaction and fashionable experiences. In summary, it can be concluded that crowding in stores has a positive effect on consumer satisfaction.

The impact of culture on the antecedents and consequences of crowding in retail settings is a topic which has not been addressed in the literature despite a few calls for attention (Santini et al., 2020; Evans et al., 2000; Jones et al., 2010). Indeed, Hall's cultural classification (1966) suggests that individuals from contact cultures—such as Middle Eastern or Hispanic societies—who typically engage in closer interaction distances and seek greater social involvement, are likely to exhibit higher tolerance for crowded environments and lower privacy needs compared to those from non-contact cultures like North American or Northern European societies. Our study supports this premise and joins in the handful of studies that demonstrate that crowding, is, indeed, "in the eyes of the beholder" depending on one's culture. Findings along these lines serve to open new areas of inquiry and hopefully attract research attention to the area of cultural influences on store environmental effects at this time of highly interconnected, global marketplace, where retailers constantly cross borders to expand their business. Further research could examine the cultural foundations as well as the consumer behavior consequences of why and how such tolerance changes and manifests across different cultural contexts. Furthermore, researchers can address the issue of how the concept of tolerance for crowding can be differentiated from the notion of cultural differences in personal space preferences and perceived crowding. Another important question is whether the role of culture in this space is moderating or mediating. The study by Jones et al. (2010) examined culture as a moderating variable, hypothesizing that culture consistently influences perceptions and values, which subsequently shape consumer experiences with a store. When comparing American and Australian consumers, their findings revealed that perceived spatial crowding, along with both hedonic and utilitarian shopping values, played a moderating role in influencing consumer satisfaction. The negative impact of crowding on consumer satisfaction is less significant for Australians than for Americans. Future research should investigate the impact of culture as a potential impact not only on crowding perceptions but also on other retail environmental factors (such as space design, architecture, and store atmospherics). Finally, there is the question of the influence that cultural distance has on this matter: Will the effects be more pronounced if the countries studied are more culturally distant?

Our hypotheses about the moderating impact of responsiveness on tempering consumers' shopping outcomes under crowded conditions have not been substantiated with our findings. This result may be explained by factors such as cultural influences and demographic characteristics of the sample. For example, given that the shopping priorities of young people differ from those of other age groups, it is possible that employee responsiveness did not moderate the relationship between consumers' perceptions of crowding and their shopping outcomes. Furthermore, the higher tolerance for perceived crowding exhibited by young people in comparison to other generations may not have served to moderate this relationship. Moreover, female consumers' perception of employee responsiveness as an essential component of the shopping experience may have prevented it from exhibiting a moderating effect in the hypothesized relationship. As discussed above, expectations of service and employee quality as well as shopping goals are likely to differ across cultures. The growing middle class in emerging markets has driven a strong association

between consumption and pleasure, thus emphasizing the need for more engaging shopping experiences (Fantoni et al., 2014). Hence, the hedonic goals of shopping become a main priority for consumers, thus diminishing the need for employee assistance and qualities such as responsiveness, which would satisfy utilitarian shopping goals. A comparative study of how cultural differences affect desired employee qualities in different countries would be theoretically and managerially insightful. From a theory perspective, one could establish how consumer expectations about in-store environments and employee qualifications vary according to their culture's variation in Hofstede's relevant dimensions, such as collectivism, power distance, time orientation, and so forth. In collectivist cultures such as Türkiye, consumers may have higher social tolerance for crowding during shopping. Consequently, Turkish consumers may be more likely to tolerate crowded environments, and employee responsiveness may be considered a standard expectation. This may have removed the effect of employee responsiveness on the effects of perceived crowding. Such findings would not only expand our knowledge of cultural influences on shopping behaviors, but also offer managerial insight to shape the service and store design strategies of global retailers that operate in multicultural contexts.

Although our findings did not uphold the moderator role of responsiveness that had been hypothesized at the outset, its mediator role, which we have additionally explored, was partially demonstrated. This finding shows that consumers partially interpret crowded environments through the lens of employee behavior. In addition, given the potential influence of culture on the findings, we believe that replicating this study in an advanced economy will likely support the impact of responsiveness as a mitigator of crowding's negative consequences. We consider responsiveness to be a significant employee quality that deserves attention within the context of crowding and even beyond. Based on the growing body of literature on responsiveness and its various types, one question to ask is how relevant these studies are in the context of crowded retail environments. Doucet (2000), for example, identifies emotional responsiveness vs. informational responsiveness and examines the impact of each on customer satisfaction within the service milieu of a bank call center. Emotional responsiveness refers to the behavior of a service employee who matches her emotional expression to the emotional expression of the customer (e.g. smiling when the customer smiles). Informational responsiveness refers to a service employee's behavior that corresponds her language and information content to those of the customer (e.g. chatting about the qualities of a specific product, say wine, when the customer asks about wines). Doucet (2000) found that emotional responsiveness is detrimental to organizational and customer outcomes (satisfaction), whereas informational responsiveness is beneficial for complex situations. Based on her pioneering work, one can explore the manifestation of these two different types of responsiveness in the context of a crowded store. Given that customer goals and experience in a retail service setting are very different from those within a service call setting, we might find that emotional responsiveness (e.g. empathizing with customer's crowding complaints) might be quite effective in tempering the customer's anger or anxiety and affecting shopping outcomes, contrary to Doucet's (2000) findings in the call center context where the employee-customer interface is limited to voice only.

Another interesting question is exploring the dynamics of these two types of behaviors within the crowded store context simultaneously, such as following the emotional responsiveness display with informational responsiveness (e.g. reminding the customer that since she only has a few items, she qualifies for the fast check out register). In summary, we see some exciting research avenues and managerial implications in further exploring different types of employee responsiveness within the context of crowding and even beyond.

In the context of emotional responsiveness, an important question emerges concerning the relative impact of spoken and "silent" (contextual) cues exhibited by employees in effectively conveying this quality. Since training its employees to look, sound, and behave more emotionally responsible is something that management can effectively do, developing a taxonomy of these cues might help retailers equip their employees in this regard. Another related question is the extent to which the impact of responsiveness varies on a continuum from low- to high-intensity service settings. Yet another inquiry concerns how the emotional vs. informational responsiveness needs of the customer might differ as the service intensity of the retail format varies from low-service retailers (warehouse clubs) to high-service retailers (banks). Finally, all of the above questions can be tested in multi-national contexts to examine the effect of culture on the hypothesized relationships.

These questions highlight the potential for employees to mitigate the adverse effects of crowding by assuming a variety of roles. Beyond exhibiting empathy and offering support to customers navigating high store density, employees may also play a role in alleviating the perceived and actual levels of crowding within the retail environment. Xia's (2010) research findings indicated that crowding in retail environments negatively impacts both functional and recreational browsing. The authors proposed that stores should provide additional employees during periods of higher customer traffic to assist customers with specific requests and minimize unnecessary functional browsing. This approach attempts to reduce customer stress while allocating more space for recreational browsing. A supporting evidence for this contention is found in Tombs and McColl-Kennedy (2010), who used social facilitation theory (Zajonc, 1965) and demonstrated that even the mere presence of others—whether employees or customers within a service environment—can significantly influence consumer behavior and outcomes, such as satisfaction and time spent in the store.

This study contributes to the marketing literature on the existing knowledge of environmental influences on shopping outcomes and, specifically, the impact of retail crowding in a non-Western cultural context. This study breaks away from traditional research on retail crowding which is typically focused on factors that are either contextual or consumer-related as potential influencers of retail crowding effects. A missing element in this literature is the attention to employee-related influences as potential moderators of retail crowding effects, a plausible factor that might help to temper the undesirable effects of retail crowding.

The findings of this study have several implications for managers. At the outset, it is important to acknowledge that many aspects of crowding are beyond the control of retail managers since crowding perceptions vary not only across individuals but also across situations and contexts (Blut & Iyer, 2020; Santini et al., 2020). However, there are still opportunities for retailers to devise strategies to temper the negative aspects of crowding. While it is harder for management to deal with human crowding, it is relatively easier to address the adverse effects of spatial crowding by altering the spatial, design, and atmospheric elements of retail venues (Mehta, 2013). For example, by focusing on architectural features, they can provide more space and reduce density in areas where it is most likely to produce undesirable effects, such as customer service areas and checkout counters (Aydinli et al., 2020). Sakrabani and Teoh (2021) found that retail 4.0 is vital for developing business performance. Here, smart use of in-store technologies, such as self-checkout and robotic assistance, might help reduce perceived crowding and increase customer tolerance. Given the context-dependent nature of crowding outcomes, retailers that cater to predominantly utilitarian needs (such as grocery stores) are more prone to be affected by them. The administration of these venues should recognize the need to better manage in-store demand and supply as well as the configuration of their space. Toward this end, they could provide customers with information about the peak shopping times,

give incentives to shop during off-peak times, and notifying them about the measures the management itself takes (such as increased number of salepeople on the floor, fast checkout options, curbside pick-up alternatives, and so forth) to deal specifically with the inconvenience of in-store density.

From a managerial perspective, the partial mediating role of perceived employee responsiveness suggests that employees who are in contact with customers have an impact on consumer satisfaction and behavioral intention in crowded stores. A potential solution to the negative effects of crowding for retail managers would be to conduct training for employees to make them more aware of the negative outcomes that can result from overcrowding during busy periods. Such adverse effects of crowding are stronger in competitive (vs. cooperative) environments (Blut & Iyer, 2020). To foster such a cooperative milieu, responsive employees can cultivate a positive spirit and social interacton to minimize undesirable outcomes and even increase tolerance for them. Research has identified responsiveness as one of the top two qualities exhibited by employees (alongside reliability) that have a direct and significant impact on customer satisfaction. This quality is also subject to management control and is instigated through the implementation of training programs and various forms of incentive programmes. The importance of training and perceived organizational support for frontline employees under pressure-laden working conditions has been empirically documented in a recent study by Ryari & colleagues (2020). Furthermore, in contrast to certain other critical traits, such as reliability, the responsiveness attribute does not necessitate an extended "testing" period in order to be appreciated by customers and thus can provide results in an effective manner without the requirement of a significant financial or temporal burden on management. Second, management should consider the potential to evaluate a range of environmental design variables and atmospheric stimuli, with the aim of facilitating employees' efforts to reduce the adverse effects of crowded stores. In the 1990s, Holbrook and Anand found that the use of fast tempo and high-volume music increased arousal and stimulation in customers. Similarly, the use of hot colors (Valdez & Mehrabian, 1994) and ambient scents have been found to have a positive effect on customer experience. Mohd-Ramly and Omar (2017) discovered that the store atmosphere is the most significant antecedent to customer experience. Given that high density levels are associated with heightened negative arousal (Blut & Iyer, 2020; Santini et al., 2020), it is important for management to be aware of these effects and consider how they may interact with employee behaviors and performance efforts. An interesting recent study reports the impact of an environmental variable hitherto not considered in the retail context: Indoor environmental quality (Dang et al., 2021). The authors demonstrated a strong positive relationship between indoor environmental quality, hedonic experience, and purchase intentions, especially when enhanced with well-trained employee service. In this case, such new in-store atmospherics could offer management yet another arsenal in minimizing the unwanted outcomes of the crowding experience.

The study is subject to several limitations, which require explicit acknowledgment. First, the data were collected in the apparel sector within a non-Western setting, a developing economy in which cultural differences shape the expectations and meaning of shopping differently from those of advanced economies where most literature in the area originates. While this difference has affected the outcome of our findings, it has also given credence to previous calls to examine cultural influences on consumer behavior and inspired us with new areas of inquiry for future research as described above. Second, the majority of respondents in our sample were college students (about 60 %) and females (%68). This tendency is attributable to two factors. First, the mall was in close proximity to a major university, and second, students frequently visit malls in Türkiye for low-budget entertainment. A third limitation, the study was conducted through a field study, which exposed the research to some non-controllable factors. The factors included differences

in store type, size, layout, quality, and number of employees, as well as the composition of the sample. Future research could be carried out in laboratory settings using experimental designs, allowing for a more precise examination of the psychological mechanisms underlying the relationship between crowding and the role of employees in shaping its outcomes. Furthermore, future studies could be conducted on a more demographically representative sample by employing a sampling method other than convenience sampling, to examine whether the perception of crowding changes with respect to demographic characteristics.In addition, future studies could examine the possible moderating influence of other employee qualities and cultural variables.

Peer Review	Externally peer-reviewed.
Conflict of Interest	The author has no conflict of interest to declare.
Grant Support	The author declared that this study has received no financial support.
Acknowledgement	The author would like to thanks Professor Sevgin Eroglu for her valuable and constructive feedback during the writing of this paper
Ethical Approval	Ethical approval could not be obtained as the study data predates 2020, when ethical clearance was not required.
Informed Consent	Participants were informed about the purpose of the study and voluntarily participated.

Author Details Hülya Bakırtaş (Prof.Dr.)

[1] Aksaray University, Faculty of Economics and Administrative Sciences, Department of Management Information Systems, Aksaray, Türkiye

0000-0003-3473-0098 hbakirtas@aksaray.edu.tr

References

Albrecht, CM., Hattula, S. & Lehmann, D.R. (2017). The relationship between consumer shopping stress and purchase abandonment in task-oriented and recreation-oriented consumers. *J. of the Acad. Mark. Sci.*, *45*, 720–740.

Andaleeb, S.S. & Conway, C. (2006). Customer satisfaction in the restaurant industry: An examination of the transaction-specific model. *Journal of Services Marketing, 20*(1), 3-11.

Anninou, I., Stavraki, G., & Yu, Y. (2018). Cultural differences on perceived crowding, shopping stress and excitement in superstores. *51st Academy of Marketing Conference University of Stirling,* Stirling, United Kingdom.

Aydinli, A., Lamey, L., Millet, K., ter Braak, A. & Vuegen, M. (2020). How do customers alter their basket composition when they perceive the retail store to be crowded? An empirical study. *Journal of Retailing, 97*(2), 207-216.

Babin, B.J., Darden, W.R. & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, *20*(4), 644-656.

Bagozzi, R.P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of Academy of Marketing Science, 16*(1), 74-94.

Baker, J., Parasuman, A., Grewal, D. & Voss G.B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, *66*(2), 120-141.

Baumeister, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.

Berthon, P., Ewing, M., & Hah L.L. (2005). Captivating company: Dimensions of attractiveness in employer branding. *International Journal of Advertising, 24*(2), 151-172.

Bitner, M.J. (1990). Evaluating service encounter: The effects of physical surroundings and employee responses. *Journal of Marketing, 54*(2), 69-82.

Bitner, M.J. (1992). Servicescapes: The impact of physical surroundings on customers and employee. *Journal of Marketing, 56*(2), 57-71.

Bitner, M.J., Booms, B.H. & Mohr, L.A. (1994). Critical service encounters: The employee's viewpoint. *Journal of Marketing, 58*(4), 95-106.

Bitner, M.J., Booms, B.H., & Tetreault, M.S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, *54* (1), 71-84.

Blut, M. & Iyer, G.R. (2020). Consequences of perceived crowding: A meta-analytical perspective. *Journal of Retailing, 3,* 362-382.

Brown, G. & Maxwell, G. (2002). Customer service in UK call centers: Organizational perspectives and employee perceptions. *Journal of Retailing and Consumer Services*, *9*(6), 309-316.

Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications and programming*. United States of America: Lawrence Erlbaum Associates Publishers.

Cain, C.K., & Ledoux, J. (2008). Emotional processing and motivation: In search of brain mechanisms. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 17-34), New York: Psychology Press Taylor and Francis Group,.

Cengiz, E., & Özden, B. (2002). Perakendecilikte büyük alışveriş merkezleri ve tüketicilerin büyük alışveriş merkezleri ile ilgili tutumlarını tespit etmeye yönelik bir araştırma [A research to determine large shopping malls in retailing and consumers' attitudes about large shopping malls]. *Ege Academic Review*, *2*(1), 1-15.

Cavusgil, S.T, Ghauri. S., & Liu, L.A. (2021). *Doing business in emerging markets* (3rd ed.). UK: Sage.

Crosby, L.A., Evans, K.R., & Cowles, D. (1990). Relationship quality in services selling: An interpersonal influence perspective. *Journal of Marketing, 54*(3), 68-81.

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). New York: John Wiley and Sons.

Czepiel, J. A. (1990). Service encounters and service relationships: Implications for research. *Journal of Business Research*, *20*(1), 13-21.

Dang, V.T., Nguyen, Y., & Wang, J. (2021). The impact of retailers' indoor environmental quality on consumer purchase decision. *International Journal of Retail & Distribution Management, 49*(6), 772-794.

Dion, D. (2004). Personal control and coping with retail crowding. *Journal of Service Management, 15*(3), 250-263.

Doucet, L.M. (2000). *Responsiveness: Emotion and information dynamics in dyadic service interactions* (Doctoral dissertation). Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=145306.

Engel-Schermelleh, K., Moosbrugger, H., & Muller, H. (2003). Evaluating the fit of structural equation models: Test of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, *8*(2), 23-74.

Eroglu, S.A. & Machleit, K.A. (1990). An empirical study of retail crowding: Antecedents and consequences. *Journal of Retailing, 66*(2), 201-221.

Eroglu, S. & Harrell, G.D. (1986). Retail crowding: Theoretical and strategic implications. *Journal of Retailing*, *62*(4), 346-363.

Eroglu, S.A., Machleit, K., & Barr, T.F. (2005). Perceived retail crowding and shopping satisfaction: The role of shopping values. *Journal of Business Research, 58*(8), 1146-1153.

Evans, G. W., Lepore, S. J., & Allen K. M. (2000). Cross-cultural differences in tolerance for crowding: Fact or fiction? *Journal of Personality and Social Psychology, 79*(2), 204-210.

Evans G.W., & Wener, R.E (2007). Crowdedness and personal space invasion on the train: Please don't make me sit in the middle. *Journal of Environmental Psychology, 27*(1), 90–94.

Fan, X., Thompson, B., & Wang, L. (1999). Effects of sample size, estimation methods, and model specification on structural equation modeling fit indexes. *Structural Equation Modeling*, *6*(1), 56-83.

Fantoni, R. Hoefel, F., & Mazzarolo, M. (2014). The future of the shopping mall. Retrieved from: https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-future-of-the-shopping-mall#.

Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39-50.

Göktuğ, T. H., & Arpa, N. Y. (2015). Ziyaretçi yönetimi bağlamında Ilgaz Dağı Milli Parkı'nda rekreasyon deneyim kalitesinin saptanması [Determination of recreation experience quality in Ilgaz Mountain National Park in the context of visitor management]. *Kastamonu Üniversitesi Orman Fakültesi Dergisi, 15*(1), 146-16.

Hall, E. T. (1966). *The hidden dimension.* New York: Doubleday.

Harrell, G.D., Hurt, M.D., & Anderson J.C. (1980). Path analysis of buyer behavior under condition of crowding. *Journal of Marketing Research, 17*(1), 45-51.

Hayes, A. F. & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: Does method really matter?" *Psychological science, 24,* 1918-1927.

Hock, S.J. & Bagchi,,R. (2017). The impact of crowding on calorie consumption. *Journal of Consumer Research,* 44(5), 1123-1140.

Hofstede, G. (2001). *Cultures consequences, comparing values, behaviors, institutions and organizations across nations* (Second edition). London: Sage Publications.

Holbrook, M.B., & Anand, P. (1990). Effects of tempo and situational arousal on the listener's perceptual and affective responses to music. *Psychology of Music, 18*(2), 150-162.

Hooper, D, Coughlan, J., & Mullen M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, *6*(1), 53-60.

Hu, H., & Jasper, C.R. (2006). Social cues in the store environment and their impact on store image. *International Journal of Retail and Distribution Management, 34*(1), 25-48.

Huang, Y., Pagano, M., & Panizza, U. (2017). Local crowding out in China. Retrieved from: https://ssrn.com/abstract=2820682 or doi: 10.2139/ssrn.2820682.

Hui, M.K., & Bateson, J.E.G. (1991). Perceived control and the effects of crowding and consumer choice on the service experience. *Journal of Consumer Research, 18*(2), 174-184.

İplik, E. (2005). *Kalabalıklık ve zaman baskısı altındaki tüketicilerin alışverişten duydukları tatmin düzeyini belirlemeye yönelik bir çalışma [A study to define the shopping satisfaction level of consumers in retail crowding and under time pressure].* (Master's dissertation) Çukurova Üniversitesi.

Jones, M.A., & Reynolds, K.E. (2006). The role of retailer interest on shopping behavior. *Journal of Retailing*, 82(2), 115-126.

Jones, M.Y., Vilches-Montero, S., Spence, M.T., Eroglu, S.A., & Machleit, K.A. (2010). Do Australian and American consumers differ in their perceived shopping experiences? *International Journal of Retail & Distribution Management, 38*(8), 578-96.

Kaya, N., & Weber, M. (2003). Cross-cultural differences in the perception of crowding and privacy regulation: American and Turkish students. *Journal of Environmental Psychology 23* (3), 301-309.

Kelloway, E. K. (1998). *Using LISREL for structural equation modeling: A researcher's guide.* United States of America: Sage Publications, Inc.,

Klemz, B.R., & Boshoff, C. (2001). Environmental and emotional influences on willingness-to-buy in small and large retailers. *European Journal of Marketing*, *35*(1), 70-91.

Kim, J.-E., & Kim, J. (2012). Human factors in retail environments: A review. *International Journal of Retail and Distribution Management, 40*(11), 818-841.

Kim, D., Lee, C-K., & Sirgy, M.J. (2016). Examining the differential impact of human crowding versus spatial crowding on visitor satisfaction at a festival. *Journal of Travel and Tourism Marketing, 33*(3), 293-312.

Kumar, V., Sunder, G., & Leone, R. (2015, April). Who's your most valuable salesperson?. *Harvard Business Review*, 62-68.

Kusumowidagdo, A., Rembulan, C. L. & Sachari, A. (2015). Sense of place among adolescents: Factors influencing the place attachment on shopping malls. *Makara Hubs-Asia, 19*(2), 97-106.

Lang, P.J., & Bradley, M.M. (2008). Appetitive and defensive motivation is the substrate of emotion. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp.51-65).

Li, J.-G. (2004). *The effects of store physical environment on perceived crowding and shopping behavior* (Doctoral dissertation). Auburn University.

Li, J.-G.T., Kim, J.-O., & Lee, S.Y. (2009). An empirical examination of perceived retail crowding, emotions, and retail outcomes. *The Service Industries Journal,* 29(5), 635-652.

Machleit, K.A., Kellaris, J.J., & Eroglu, S.A. (1994). Human versus spatial dimensions of crowding perceptions in retail environments: A note on their measurement and effect on shopper satisfaction. *Marketing Letters*, 5(2), 183-194.

Machleit, K.A. & Eroglu, S.A. (2000). Describing and measuring emotional response to shopping experince. *Journal of Business Research*, *49*(2), 101-111.

Machleit, K.A., Eroglu, S.A., & Mantel, S.P. (2000). Perceived retail crowding and shopping satisfaction: What modifies this relationship? *Journal of Consumer Psychology, 9*(1), 29-42.

Maeng, A., & Tanner, R.J. (2013). Construing in a crowd: The effects of social crowding on mental construal. *Journal of Experimental Social Psychology*, 49(6), 1084-1088.

Mattila, A.S., & Wirtz, J. (2008). The role of store environmental stimulation and social factors on impulse purchasing. *The Journal of Services Marketing*, *22*(7), 562-567.

Mead, N.L., Baumeister, R.F., Stillman, T.F., Rawn, C.D. & Vohs, K.D. (2011). Social exclusion causes people to spend and consume strategically in the service of affiliation. *Journal of Consumer Research*, *37*(5), 902–919.

Mehta, R. (2013). Understanding perceived retail crowding: A critical review and research agenda. *Journal of Retailing and Consumer Services,* 20(6), 642–649.

Mert, K. (2015). Tüketicilerin alişveriş merkezi kavramina ilişkin metaforik algılarının incelenmesi [Examining consumers' metaphorical perceptions of the shopping mall concept]. *Sakarya Üniversitesi İktisat Dergisi,* 4(3), 1-18.

Mohd-Ramly, S., & Omar, N.A. (2017). Exploring the influence of store attributes on customer experience and customer engagement. *International Journal of Retail & Distribution Management*, 45(11), 1138-1158.

Mohr, L.A. & Bitner, M.J. (1995). The role of employee effort in satisfaction with service transactions. *Journal of Business Research, 32*(3), 239-252.

Naylor, G., & Frank, K.E. (2000). The impact of retail sales force responsiveness on consumers' perceptions of value. *The Journal of Services Marketing*, *14*(4), 310-322.

Nunnally, J.C. (1978). *Psychometric theory*, McGraw-Hill.

O'Neill, M., & Chartes, S. (2000). Service quality at the cellar door: Implications for Western Australia's developing wine tourism industry, *Managing Service Quality, 10*(2), 112-122.

Pan, Y., & Siemens, J.C. (2011). The differential effects of retail density: An investigation of goods versus service settings. *Journal of Business Research, 64*(2), 105-112.

Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1988). SERVQUAL: A multi-item scale for measuring consumer perception of service quality. *Journal of Retailing,* 64(1), 12-40.

Parasuraman, A., Berry, L.L., & Zeithaml, A.L. (1991). Understanding customer expectations of service. *Sloan Management Review, 32*(3), 39-48.

Pons, F., Mourali, M., & Giroux, M. (2014). The density–satisfaction relationship revisited: The role of scarcity and consumers affective reactions in a crowded retail situation. *Journal of Retailing and Consumer Services, 21*(1), 54-60.

Pons, F., Marilyn, G., Mourali, M., & Zins, M. (2016). The relationship between density perceptions and satisfaction in the retail setting: Mediation and moderation effects *Journal of Business Research, 69*(2), 1000-1007.

Roberts, K., Varki, S., & Brodie, R. (2003). Measuring the quality of relationships in consumer services: An empirical study. *European Journal of Marketing, 37*(½),169-196.

Ryari, H., Alavi, S., & Wieseke, J. (2020). Drown or blossom? The impact of perceived chronic time pressure on retail salespeople's performance and customer–salesperson relationships. *Journal of Retailing, 97*(2), 217-237.

Sakrabani, P., & Teoh, A.P. (2021). Retail 4.0 adoption and firm performance among Malaysian retailers: The role of enterprise risk management as moderator. *International Journal of Retail & Distribution Management, 49*(3), 359-376.

Santini, F. de O., Ladeira, W.J., Sampaio, C.H. & Perin, M. G. (2020). Effects of perceived retail crowding: a meta-analytic study. *The International Review of Retail, Distribution and Consumer Research*, *30*(4), 411-436.

Shostack, L.G. (1977). Breaking free from product marketing. *Journal of Marketing, 41*(2), 73- 80.

Skandrani, H., Mouelhi, N.B.D., & Malek, F. (2011). Effect of store atmospherics on employees' reactions. *International Journal of Retail and Distribution Management*, *39*(1), 51-67.

Sommer, R. (2009). Personal space. In Reis HT, Sprecher SK (Eds.) *Encyclopedia of human relationships* (pp. 1227-1229). Thousand Oaks, California.

Stokols, D. (1972). On the distinctions between density and crowding: Some implication for future research. *Psychological Review*, *79*(3), 275-277.

Sundstrom, E., Bell P., Busby P., & Asmus C. (1996). Environmental pyschology, 1989-1994. *Annual Review of Psychology, 47,* 485-512.

Tombs, A.G., & McColl-Kennedy, J.R. (2010). Social and spatial influence of customers on other customers in the social-servicescape. *Australian Marketing Journal, 18*(3), 120-131.

Turley, L.W., & Milliman, R.E. (2000). Atmospheric effects on shopping behavior: A review of the experimental evidence. *Journal of Business Research*, *49*(2), 193-211.

Valdez, P., & Mehrabian, A. (1994). Effects of color on emotions. *Journal of Experimental Psychology,* 123(4), 394-409.

Van Rompay, T.J.L., Galetzka, M., Ruyn, A.T.H., & Garcia, M.J. (2008). Human and spatial dimensions of retail density: Revisiting the role of perceived control. *Psychology and Marketing, 25*(4), 319-335.

Vural T., & Yücel, A. (2006). Çağımızın yeni kamusal mekanları olan alışveriş merkezlerine eleştirel bir bakış [A critical approach to the shopping malls as the new public spaces in our age]. *İTÜ Dergisi*, *5*(2), 97-106.

Wineman, J.D. (1982). Office design and evaluation. *Environment and Behavior, 14*(3), 271-298.

Whiting, A. (2015). Long lines of customers: how does customer crowding affect service employees?. *Business Ouest*, 1-13.

Whiting, A., & Nakos, G. (2008). Functional density and its impact on retail satisfaction in cross-cultural contexts: Can crowded stores be a good thing for retailers?. *International Business: Research Teaching and Practice*, *2*(1), 1-11.

Xia, L. (2010). An examination of consumer browsing behaviors. *Qualitative Market Research, 13*(2), 154-173.

Zajonc, R.B. (1965). Social facilitation. *Science, 149(*3681), 269-274.

Zehrer, A., & Raich, A. (2016). The impact of perceived crowding on customer satisfaction. *Journal of Hospitality and Tourism Management*, *29*, 88-98.