

Can social support alleviate stress while shopping in crowded retail environments?

Laura Lucia-Palacios (llucia@unizar.es),¹ Raúl Pérez-López (raperez@unizar.es),^{1*}
Yolanda Polo-Redondo (ypolo@unizar.es)¹

¹Department of Marketing, University of Zaragoza

Address: Facultad de Economía y Empresa, C/ Gran Vía 2, 50005, Zaragoza, Spain

***Corresponding author:**

Raúl Pérez-López

Facultad de Economía y Empresa, C/ Gran Vía 2, 50005, Zaragoza, Spain

Phone: +34 876 55 46 36

Can social support alleviate stress while shopping in crowded retail environments?

Abstract

This paper aims to find out whether sales associates and shopping companions, as two factors of the social servicescape, can help customers alleviate their levels of stress while shopping in crowded retail scenarios. Social Impact Theory is used to build a theoretical framework that is tested on a sample of mall shoppers. The findings demonstrate that sales associates can reduce customers' level of stress in crowded situations by employing their task and interaction competences. Customers with shopping companions feel less stress while shopping. When the companions are similar to the customer in shopping preferences, they can create boundaries to stress created by crowding. Finally, this research offers important implications for store managers as well as for sales associates.

Keywords

Stress, coping, social support, sales associates, shopping companions

Can social support alleviate stress while shopping in crowded retail environments?

1. Introduction

Stressful situations while shopping in crowded retail environments are important because stress can lower customers' satisfaction, willingness to pay and repatronage intentions, and increase impulsive behavior and store abandonment (Maier & Wilken, 2014; Rychalski & Hudson, 2017; Albrecht, Hattula & Lehman, 2017). A crowded environment is the main source of stress in retail settings and it is the cause of other stressors such as waiting times, long queues, messy shelves and service failure (Baker & Wakefield, 2012).

Retail literature on stress in shopping contexts is scant (Ruvio, Somer, & Rindfleisch, 2014; Albrecht et al., 2017). Current findings indicate that stress can be reduced by managing physical cues of the store servicescape like music, light and temperature (Mehta, 2013). However, other in-store factors, such as the social servicescape (Tombs & McColl-Kennedy, 2003; Hanks, Line & Kim, 2017) may also be important in reducing stress while shopping. The social servicescape refers to the interactions among people in a service setting and consists of two main factors, employees and other customers (Nguyen, DeWitt & Russell-Bennett, 2012; Rosenbaum, Kelleher, Friman, Kristensson & Scherer, 2017). Previous research on the social servicescape considers that customers who are strangers, measured as crowding, can create stress (Baker & Wakefield, 2012). However, there is no research about the possibility of employees and shoppers who are acquaintances helping customers cope with stress in crowded retail settings.

Social-emotional support and social-instrumental support are generally important stress-reducing factors (Rosenbaum & Massiah, 2007; Whiting, 2009). Social-

emotional support implies that people can obtain support from others that are there to listen, care and share an activity, and instrumental support refers to others' practical help, assistance or financial aid (Rosenbaum et al., 2017). However, research still has not clarified which factors of the social servicescape can help customers cope with stress in crowded retail settings and how.

Sales associates (as employees) and shopping companions (as customers who are acquaintances) are two social servicescapes factors that could provide both types of support because they help customers to accomplish their shopping goals and can influence their feelings and emotions (Chebat, Haj-Salejm & Oliveira, 2014; Kim & Choi, 2016; Zboja et al., 2016). Shopping companions are shoppers that the target customer knows and that go shopping with him or her. Sales associates are frontline employees that are directly in touch with customers.

As a consequence, this research aims to analyze whether social servicescape factors can alleviate customers' stress due to crowding. This objective entails two specific goals: (1) to study the impact of sales associates on the stress experienced while shopping and their ability to reduce the generation of stress due to crowding; and (2) to examine how shopping companions can help customers regulate the stress they experience in crowded servicescapes. Data were collected via a survey conducted among 567 consumers during their shopping experience at a Spanish mall in June 2015.

Our contribution to the marketing literature is twofold. First, the present research has identified a new type of stress-alleviating factors that are part of the social servicescape instead of the store physical dimension. Second, it finds that similarity in shopping preferences is a key characteristic of shopping companions to influence the target customer's feelings.

The remainder of the paper is organized as follows. In the next section, we carry out a literature review. Section 3 develops our hypotheses. Section 4 describes the empirical setting and methodological procedures used to test the proposed relationships. Section 5 outlines our main results. The article concludes by discussing our main findings and implications for both theory and practice.

2. Theoretical background

2.1. Stress and its alleviators in crowded servicescapes

Stress is a subjective psychological state that entails emotional responses characterized by their negative affect and high arousal (Moschis, 2007; Russell & Pratt, 1980); physiological reactions, such as sweating, increased blood pressure, and rapid pulse; and behavioral responses, such as hurrying or avoidance behaviors (Lazarus, 1993; Lazarus & Folkman, 1984).

In retail environments, stress may appear because of loud ambient music, long queues, messy shelves, lack of personnel, parking hassles, crowding or service failures (Eroglu & Machleit, 1990; Sujan, Sujan, Bettman & Verhallen, 1999; Chebat, G elinas-Chebat & Therrien, 2005; Sengupta, Balaji & Krishnan, 2015). Among these causes, the literature has focused especially on crowding, as it is the main stressor in shopping situations (Aylot & Mitchel, 1998). In fact, crowding is the main cause of queueing, long waiting hours and parking hassles. Crowding refers to the customer's perceptions about the number of people present in a given space, such as a commercial setting (Eroglu, Machleit & Barr, 2005).

Previous research on stress-alleviating factors in servicescapes has focused on physical cues of the store that can reduce shoppers' perceptions of crowding. For example, a softer and less saturated lighting and music with a reduced tempo can diminish customers' perceptions of agglomeration (Mehta, 2013). Likewise, the

collocation of the merchandise and the store layout can mitigate the shoppers' perceptions of crowding (Machleit, Eroglu & Powell-Mantel, 2000). Retailers have more personnel and check-out counters to deal with the greater number of shoppers during peak shopping times (Machleit et al., 2000; Mehta et al., 2012).

2.2. Social support as a coping strategy in servicescapes

Besides the management of physical cues to reduce perceptions of crowding, the social servicescape can also help customers cope with stress through social support (Lazarus & Folkman, 1984; Whiting, 2009; Rosenbaum et al., 2017). The literature has conceptualized various types of social support (Rosenbaum, Ward, Walker & Ostrom, 2007; Sengupta et al. 2015; Rosenbaum et al. 2017). Emotional/informational support is needed by people who seek to express their emotions after a negative event. It requires the presence of others to listen to, care about and sympathize with them. Instrumental/tangible support implies seeking advice and assistance from friends or sales associates. Affectionate support implies that people seek to feel loved and wanted by their relatives and friends.

Social support can help people cope with stress in, for example, learning activities, recreational tours and medical waiting areas (Swickert, Rosentreter, Hittner and Mushrush, 2002; Rosenbaum et al. 2007). Whiting (2009) suggests that consumers in crowded servicescapes use social-emotional support as a strategy to cope with stress. However, this author does not identify the specific social factors that can give customers emotional support and fails to provide evidence of the role of instrumental support derived from the social resources that are present in the retail scenery.

There are two main factors in servicescapes that can provide stressed customers with social support, employees and other customers (Tomb & McColl-Kennedy, 2003; Rosenbaum & Montoya, 2007). The present article considers sales associates, as they

are frontline employees that can influence shoppers' purchase decisions and feelings (Du et al., 2011; Zboja et al., 2016). In addition, it addresses other customers in two different ways because their roles in stress generation differ widely depending on whether they are the target customer's acquaintances or not (Zhang, Li, Burje & Leykin, 2014; Kim & Choi, 2016). While shoppers who are strangers are prone to increase negative feelings and contribute to the generation of stress (Baker & Wakefield, 2012), acquaintances, mainly shopping companions, can assist the target customer in the purchase activity and contribute to a more pleasurable experience (Nguyen et al., 2012; Hart & Dale, 2014).

Both sales associates and shopping companions provide clients with self-confidence, security and comfort. They increase customers' satisfaction with the service (Adelman & Ahuvia, 1995), help them feel less lonely (Ng, 2003), create place attachment to a restaurant (Rosenbaum et al. 2007), improve cooperation and loyalty (Rosenbaum & Massiah, 2007), mitigate the effects of service failure on customer satisfaction (Sengupta et al., 2015), and improve customers' well-being (Rosenbaum et al., 2017). However, none of these studies has tested whether social support can help shoppers regulate stress due to crowding.

3. Hypotheses development

3.1. The influence of sales associates on stress in crowded retail environments

Sales associates can influence customers' feelings and reactions mainly through their skills and competencies, which can be classified into two broad categories: task competence and interaction competence. The former refers to the sales associate's product knowledge and ability to assist shoppers, while the latter concerns the

assistant's social and communication capabilities (van Dolen, Lemmink, de Ruyter, & de Jong, 2002; Brexendorf, Mühlmeier, Tomczak & Eisend, 2010).

Through task competence, sales associates can provide customers with instrumental support, assisting them in fulfilling their shopping goals and facilitating their shopping experience (Reynolds & Beatty, 1999; Sharma & Stafford, 2000; Rosenbaum et al. 2017). In addition, sales associates can reduce the stress generated as a consequence of crowding because they can make the shopping experience quicker and more efficient. Social Impact Theory (SIT), formulated by Latané (1981), provides a useful theoretical reasoning that supports this argumentation. This author argues that people around us can influence our thoughts, feelings and behavior. One of his propositions states that this impact varies with the strength of the social factor, that is, its importance, prominence, or power for the target individual. This strength depends on the status of the influencer. Furthermore, in the presence of several social factors, if the strength of one of them increases, the impact of the rest diminishes. In the present research, the level of task competence can be understood as the strength of this social factor and, as a result, it will reduce customers' stress and moderate the stress generated by crowding.

Interaction competence, characterized by the sales associates' communication ability and friendliness, can increase pleasure (Mattila & Wirtz, 2008) and transmit positive emotions to customers, offering emotional support (Tomb & McColl-Kennedy, 2003; Du et al., 2011; Zboja et al., 2016) and, thus, directly reducing customers' stress. Furthermore, we can state that interaction competence will reduce the negative consequences of crowding, such as stress (Mattila & Wirtz, 2008), which is consistent with SIT. Hence, the following hypothesis is formulated:

H1: *Sales associates' task competence will (a) reduce the target customer's stress and (b) mitigate the effects of perceived crowding on the target customer's stress.*

H2: *Sales associates' interaction competence will (a) reduce the target customer's stress and (b) mitigate the effects of perceived crowding on the target customer's stress.*

3.2. The influence of companionship on stress in crowded retail environments

In general, accompanied shopping creates a more hedonic and pleasant experience than unaccompanied shopping because companions can provide emotional, affectionate and instrumental support (Rosenbaum et al. 2017). Companions usually share opinions about products with the target customer, give advice, and assist him or her in the shopping task, as well as enhancing the customer's positive emotions while shopping (Lindsey-Mullikin & Munger, 2011). Furthermore, shoppers perceive waiting times to be shorter if they go shopping with others (Bell, Corsten & Knox., 2011). As a consequence, we propose that going shopping with others can decrease stress and that customers will be less affected by crowding and its negative consequences when accompanied because they will be more entertained. So, we propose:

H3: *Companionship will (a) reduce the target customer's stress, and (b) mitigate the effects of perceived crowding on the target customer's stress.*

Nevertheless, it seems clear that not every companion will affect the customer's shopping experience in the same way. Some previous research has differentiated between relatives and friends, showing that shopping with friends increases positive emotions, excitement, intentions to purchase, and impulse buying more than going with

relatives (Borges, Chebat & Babin, 2010; Chebat et al., 2014; Kim & Choi, 2016). Chebat et al. (2014) suggest that this differentiation may be based on the strength of the relationship between the target customer and the companion.

The present research proposes to focus on “similarity in shopping preferences”. This is the extent to which target customers feel that they are similar to and can identify with their companions in a retail context in terms of shopping preferences. This definition has been adapted from Brocato, Voorhees and Baker (2012), who defined similarity in terms of behavior, physical appearance and background between a target customer and other customers who are strangers present in a retail setting. The concept of similarity in shopping preferences in the present research only refers to similarity in shopping behavior. For example, a teenage girl would prefer to go shopping with a friend who likes shopping in similar clothing stores, looking for similar clothes or who behaves appropriately according to the teenage girl’s standards (looking for bargains, for example) than going shopping with her mum or another friend with different shopping preferences (Lucia-Palacios, Pérez-López & Polo-Redondo, 2016).

Companions with the same preferences as those of the target customer can also advise the customer and reinforce his or her purchase decisions, helping him or her to make better decisions and improving him or her shopping experience, with more efficiency and better attitude (Kiecker & Hartman, 1994; Hanks, Line & Yang, 2017). In addition, customers find people with similar shopping likes and preferences to themselves more reliable than those who differ in this regard (Lindsey-Mullikin & Munger, 2011). So, consumers will be more compatible with companions with whom they share shopping preferences and shopping behavior in a retail environment. Under SIT, similarity is a proxy for the strength of the relationship between customers and their companions, since there may be a common background or congruence in their

shopping likes and preferences that make the social tie stronger. As a consequence, the stronger the similarity in shopping likes and preferences, the greater the influence of the alleviating effect of companions on stress.

Lindsey-Mullikin and Munger (2011) suggested that companions can help customers create boundaries to negative feelings. Companions with similar shopping preferences can make the shopping experience more entertaining for customers than dissimilar companions, making customers perceive that waiting times are shorter and improving their attitude toward shopping (Borges et al., 2010; Lucia et al., 2016). Following SIT, if similarity increases, the effects of perceived crowding should decrease because this is the main social factor that affects stress in retail settings. As a result, we suggest that:

H4: *Similarity in shopping preferences will (a) reduce the target customer's stress, and (b) mitigate the effects of perceived crowding on the target customer's stress.*

3.4. Control variables

We included day of the week, age, gender, frequency of visit to malls and shopping goals, as control variables. Day of the week may be a determining factor of the levels of crowding in the retail setting. Men are more likely to engage in problem-solving efforts to cope with stress, while women tend to be more emotion-focused (Mathur, Moschis & Lee, 1999). The frequency of visits to malls defines the profile of the customer, since more frequent shoppers may have a greater tolerance to crowding (Pan & Siemens, 2011). Shopping goals are a relevant factor because goal-oriented shoppers, those with a specific shopping objective, are more likely to abandon the store if they feel stress due to crowded conditions (Baker & Wakefield, 2012; Albrecht et al. 2017). Figure 1 depicts our theoretical model, which is explained in the following sections.

Figure 1 here

4. Methodology

Our methodology is based on structural equation modeling (SEM). We estimated our model using the program SmartPLS 3.0 (Ringle, Wende, & Becker, 2015). PLS-SEM seems an appropriate method to estimate the results in the present research, because its algorithm allows the unrestricted computation of cause–effect relationship models that employ both reflective and formative measurement models (Diamantopoulos & Sigauw, 2006). Perceived crowding is a second order formative construct with two dimensions: human and spatial crowding (Eroglu et al. 2005).

4.1. Sample and data collection

Data were obtained through a survey conducted in a Spanish mall during 10 days of June 2015. Shopping malls constitute the ideal context for our empirical analysis because they are typical third places where shoppers not only to shop, but also go to get social interaction (Rosenbaum et al. 2017). Furthermore, crowding is more frequent in these retail agglomerations (Baker & Wakefield, 2012). From a methodological point of view, this setting offers the chance to collect data quickly from a great number of customers who shop in different stores.

The participants were intercepted at the end of their shopping experience. The study was restricted to customers who had shopped in a clothing store and had interacted with a sales associate in it. A total of 594 questionnaires were obtained; however, the final valid sample consisted of 567 individuals after removing those with incomplete answers. Of these, 382 were shopping in the company of others.

4.2. Variables measurement

All the concepts of the theoretical framework were measured through latent variables. A pretest was conducted prior to the main survey. As a consequence, the questionnaire

was reworded and minor changes were made in the layout to improve its clarity and readability. All these variables are reflective constructs except for perceived crowding. All the latent variables were measured using seven-point Likert scales based on previous research (see Appendix A). A dichotomous variable was used to differentiate between customers who went to the mall with companions (assigned a value of 1) and those who went alone.

With respect to the control variables, day of week is measured through a dummy that takes the value 1 when the customer shopped on Fridays or Saturdays, and 0 otherwise. Shopping goals is a dummy variable that takes the value 1 for shoppers who went shopping with a specific goal (purchasing an item or browsing in a specific store), and 0 otherwise. Age is measured in years, gender is a dummy where 1 means female, and frequency of visit to malls is measured by the number of times the customer had attended shopping malls during the month previous to the data collection.

4.3. Common method bias

Since all the data used in this study have been obtained through a questionnaire and are based on consumers' perceptions, common method variance can cause biased estimations. Both procedural and statistical methods can be applied to control for this (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). First, participants were informed about the anonymous character of their answers, and questions were arranged without any apparent order or logic.

Second, if common method bias is present, a single factor should emerge from the exploratory factor analysis (Krishnan, Martin & Noorderhaven, 2006). The results reported the existence of five different constructs that together explained 79.08% of the total model variance for the sample of 567 individuals. The largest factor, related to sales associates' task and interaction competencies, explained 27.83% of the total

variance. A subsample of 382 accompanied individuals was used to test the role of the variable “shopping likes and preferences”. The total model variance for this sample was 75.73% and the largest factor explained 23.12% of it. As a consequence, there is no apparent global factor and common method bias is not a problem in the data.

5. Results

5.1. Descriptive results

Before the econometric analysis of the model, descriptive results related to some of the variables included in the model are reported. 68.76% of the surveyed customers attended the mall accompanied (382). Most of the participants were under 45 and 56.53% were women. 19.37% of them attended shopping malls less than once a month, 41.36% between once and twice, 30.89 between 3 and 4 times, and only 8.38 5 or more times a month. These percentages are very similar for the subsample of accompanied shoppers.

It is interesting to consider that customers that go shopping accompanied may have a hedonic shopping goal, while unaccompanied shoppers may be more utilitarian. A contingency analysis showed that there is no significant coincidence between the two variables ($\chi^2=0.794$; p-value=0.373).

5.2. Measurement model assessment

Two models were run. The first examined the effects of companionship (accompanied vs. alone) on stress and was tested using the total sample of 567 individuals. With the aim of analyzing the role of similarity in shopping preferences, the second model was tested using the sample of 382 accompanied shoppers. The measurement model assessment was conducted for the two samples.

Unidimensionality of constructs was addressed by conducting an exploratory factor analysis with varimax rotation in SPSS. This reported five reflective constructs in both

samples: stress, perceived human crowding, perceived spatial crowding, similarity in shopping preferences, and sales associates' competencies. This analysis confirmed two dimensions for perceived crowding. Six items loaded onto the human dimension, while only two loaded onto spatial crowding (Table 1). All the items pertaining to sales associates' task and interaction competencies loaded onto a single construct. However, due to their importance for the present analysis and their clear theoretical distinction, these two dimensions were retained to enable us to make a decision based on the confirmatory factor analysis and the discriminant validity assessment.

Results from the confirmatory factor analysis using SmartPLS 3.0 software (Ringle et al., 2015) confirmed the exploratory solution, except for sales associates' task and interaction competencies. Although the items pertaining to task competence loaded high on the interaction competence construct, they loaded clearly higher on their own construct. The same occurred for the items of interaction competence.

The assessment of the measurement validity comprised three stages: item reliability, composite reliability, and discriminant validity. For item reliability, all measures loaded highest on their respective latent variables, and these loadings were above 0.7, with the exception of some items of perceived human crowding (Nunnally, 1978). PHC1 and PHC2 had loadings of 0.687 and 0.657 in the sample of 567 customers. Only PHC3 loaded slightly below 0.7 in the sample of 382 participants (Tables 1 and 2). Since these loadings were close to 0.7, we decided to retain all the items. This research followed a two-step approach to create the second-order construct (Wetzels, Odekerken-Schoder, & Van Oppen, 2009). The VIF for the spatial and human dimensions of perceived crowding was below the threshold of 3.3 suggested by Diamantopoulos and Siguaw (2006), indicating that there were no multicollinearity

problems. The weights of these dimensions on the second-order construct were significant in both samples.

Table 1 here.

Table 2 here.

Discriminant validity was verified through two criteria. First, the square roots of the AVE values were higher than the correlations between variables for each pair of constructs (Fornell & Larcker, 1981) (Table 3). Second, the Heterotrait–Monotrait (HTMT) criterion provided by SmartPLS 3.0 show values below the threshold of 0.85 (Henseler, Ringle & Sarstedt, p. 121). None of these correlations was above this threshold (Table 4). Both criteria confirmed discriminant validity.

Table 3 here.

Table 4 here.

5.3. Structural model assessment

The results obtained with SmartPLS 3.0 show that the model with direct effects had adequate goodness of fit measures (Table 5). Furthermore, the VIF values indicate that there were no multicollinearity concerns.

Table 5 here.

H1_a, H1_b, H2_a, H2_b, H3_a, and H3_b were tested on the full sample, while H4_a and H4_b were only tested on the subsample of accompanied shoppers. The results reject H1_a but support H1_b. Sales associates' task competence has no significant effect on stress, but significantly moderated the influence of perceived crowding on stress. In figure 2, it can be observed that this effect is particularly important when crowding is high. Interaction competence was found to negatively influence stress, supporting H2_a. In addition, this competence reduces the effects of perceived crowding on stress in model 3, but not in

the model that includes all the effects together. So, strictly, H2_b is not supported. However, the representation of the effect (Figure 3) shows that interaction competence reduces the stress generated by perceived crowding.

Figure 2 here.

Figure 3 here.

H3_a is also supported, implying that going to the mall accompanied helps the target customer maintain a low level of stress. However, going accompanied does not moderate the generation of stress due to perceived crowding, and H3_b is not supported. H4_a and H4_b are confirmed. Similarity in shopping preferences has a direct and negative effect on stress and moderates the generation of stress due to perceived crowding, confirming H4_b. Figure 4 shows that this moderating effect is especially strong when perceived crowding is high.

Figure 4 here.

Regarding the control variables, age and day of the week were found to have an impact on stress. Older shoppers feel less stress than youngsters do while shopping. Furthermore, customers feel more stressed when shopping on Friday evenings and Saturdays and women feel more stressed than men while shopping, but this difference is only significant when they attend malls in the company of others.

6. Discussion

This paper aimed to analyze whether social support in retail settings can alleviate the stress experienced by customers while shopping in a crowded retail environment. According to previous research, customers can use social support as a strategy to cope with stress triggered by crowding. This research proposes that sales associates and shopping companions are social servicescape factors that can provide stressed shoppers with social support and alleviate stress in crowded retail environments. A general

conclusion is that the social servicescape can alleviate stress by providing social support.

Our results confirm that sales associates can increase pleasure and transmit positive emotions to customers (Du et al., 2011; Mattila & Wirtz, 2008). Moreover, being cooperative and talkative can directly reduce a customer's stress. However, product knowledge and good sales technique do not reduce the level of customers' stress directly. Apparently, the instrumental support provided by sales associates is not valued by stressed shoppers. This might be due to a limitation of our research in that it does not differentiate between goal-oriented and recreational shoppers when analyzing the influence of the social support (Albrecht et al. 2017). Further research could address whether the effectiveness of the sales associates' instrumental support to reduce stress varies depending on the specific shopping goal.

Both task and interaction competencies are useful tools through which sales associates can alleviate the effect of crowding on customer's stress. Good task competence can provide customers with a quicker and more efficient shopping experience in crowded stores, for instance, by helping them find the desired items and avoiding messy shelves. Our findings on the moderating effect of interaction competence extends the work of Mattila and Wirtz (2008) by showing that sales associates cannot only counteract the negative effects of crowding on pleasure, but also reduce the stress generated by crowding.

The results show that shopping in the company of others can directly reduce the level of stress but that it is not enough to diminish the effect of crowding on stress. This may be because different companions can influence shoppers' emotions and behavior differently, which confirms the ambiguities found in previous work (Chebat et al., 2014). Additionally, the present research extends the work of Lindsey-Mullikin and

Munger (2011). These authors found, through a qualitative study, that going shopping accompanied could help customers create boundaries to negative consequences, such as decision-making risks, while shopping. We show that stress is also a negative consequence in shopping that is triggered by crowding, and that it can be reduced by companions as long as they share shopping likes and preferences with the target customer.

The contribution of this research to the marketing literature is twofold. First, we find evidence that companions and sales associates are social servicescape factors that can alleviate stress in crowded settings through their social support. These alleviating factors are different from physical servicescape cues because the former are coping mechanisms that consumers can control, while the latter pre-empt the development of stress and consumers cannot control them. These findings confirm SIT, so this theoretical framework is suitable for the purpose of this research on the alleviation of stress through social factors. Second, it contributes by providing new evidence that going shopping accompanied is not enough to reduce customer stress due to crowding and by examining similarity in shopping preferences. This characteristic of shopping companions provides a better knowledge about how this social factor can make the shopping experience less stressful.

6.1. Managerial implications

This research allows us to offer some interesting and useful managerial implications. Managers should take into account that sales associates can reduce stress through their task and interaction competencies. As a result, these associates should be trained to be task competent which increases shopping efficiency. New technologies can help sales associates to be more efficient. Managers should hire employees with high interaction competence, as this ability reduces the customers' stress at any level of crowding.

Interaction capabilities, such as talkativeness, helpfulness and friendliness can provide customers with emotional support. Sales workshops or seminars should be prepared in which sales associates can train their communication abilities. Role-plays are good tools in this respect (Rocco & Whalen, 2014). Furthermore, sales associates should be encouraged to attend coaching or emotional intelligence courses. Crowded retail settings are usually more frequent during weekends, the sales and special shopping periods such as Christmas. In these situations, managers need the best-trained or most competent sales associates. However, in practice, it is in these periods that younger people or students are hired to cover the extra demand. We suggest that, if managers opt for this hiring strategy, they should invest in training their new sales associates prior to dealing with customers.

Although companionship is not an easily controllable social factor, store managers should try to encourage their customers to go shopping with companions who have similar shopping likes and preferences, which will improve their well-being. So, communication campaigns should be addressed to achieving this goal.

Our research also provides sales associates with some guidelines as to how to react in crowded situations. Sales associates should be especially careful with customers that go shopping with companions that are not very similar in shopping preferences. For example, in a situation in which there is a young customer with a relative (a mother) or a young customer with a friend, sales associates should focus on serving the first type of customers as they could suffer greater stress.

6.2. Limitations and further research

Our research is not lacking in limitations that allow us to provide some future research lines. First, the data were obtained through a survey conducted in a Spanish mall, so the generalization of our results should be done with caution. Future studies could conduct

this research in other contexts and countries to test whether the results are similar. Additionally, a longitudinal analysis could provide richer findings, such as the influence of stress on sales, loyalty or repatronage behavior.

Second, our study focused on sales associates' task and interaction competence. However, other skills and abilities, such as empathy, could also be important in reducing stress while shopping (Wieseke, Geigenmüller, & Kraus, 2012). So, further research could include other sales associates' skills to enrich the results. Third, we focused on similarity in shopping preferences as a characteristic of companions; however, other characteristics, such as friendliness or homophily, may also be important to reduce stress while shopping.

Fourth, this research does not consider the personality traits of customers, such as extraversion, need for social interaction or self-esteem, which may be important to modulate the effects of crowding on stress and the effectiveness of social support as a coping strategy (Mathur et al. 1999; Swickert et al. 2002). So, future studies should analyze the role of personality traits in our model.

Finally, other lines of research could address how new technology could modify stress in retailing. Mobile devices or tablets in the shop could provide emotional and instrumental support. Video conferences with friends or relatives during the shopping activity or the possibility of trying on the clothes in a virtual fitting room could modify the feelings of stress and the importance of sales associates in providing emotional and instrumental support.

6.3. Conclusion.

Previous literature on retail crowding has focused on the management of environmental variables to reduce the customers' stress since this feeling leads to negative customer outcomes. However, individuals may also use other coping mechanisms, such as social

support as a coping mechanism. This research proposes that sales associates and shopping companions are stress-alleviating factors that provide customers with emotional and instrumental social support. Store managers should be conscious of the chances that these social resources offer to manage stress in crowded environments. Future research should consider additional coping mechanisms that have not been addressed yet, such as positive and rational thinking.

Appendix here.

References.

- Adelman, M.B. & Ahuvia, A.C. (1995). Social support in the service sector. The antecedents, processes, and outcomes of social support in an introductory service, *Journal of Business Research*, 32(3), 273-285. [https://doi.org/10.1016/0148-2963\(94\)00052-G](https://doi.org/10.1016/0148-2963(94)00052-G)
- Albrecht, C.M., Hattula, S. & Lehman, D.R. (2017). The relationship between consumer shopping stress and purchase abandonment in task-oriented and recreation-oriented consumers, *Journal of the Academy of Marketing Science*, <https://doi.org/10.1007/s11747-016-0514-5>.
- Aylot, R. & Mitchell, V.W. (1998). An exploratory study of grocery shopping stressors. *International Journal of Retail & Distribution Management*, 26(9), 362-373. <https://doi.org/10.1108/09590559810237908>
- Baker, J., & Wakefield, K.L. (2012). How consumer shopping orientation influences perceived crowding, excitement and stress at the mall, *Journal of the Academy of Marketing Science*, 40(6), 791–806. <https://doi.org/10.1007/s11747-011-0284-z>
- Bell, D.R., Corsten, D., & Knox, G. (2011). From point of purchase to path to purchase: How preshopping factors drive unplanned buying. *Journal of Marketing*, 75(1), 31–45. <https://doi.org/10.1509/jmkg.75.1.31>
- Borges, A., Chebat, J.C., & Babin, B.J. (2010). Does a companion always enhance the shopping experience? *Journal of Retailing and Consumer Services*, 17(1), 294–299. <https://doi.org/10.1016/j.jretconser.2010.02.007>

- Brexendorf, T.O., Mühlmeier, S., Tomczak, T., & Eisend, M. (2010). The impact of sales encounters on brand loyalty. *Journal of Business Research*, 63(11), 1148–1155. <https://doi.org/10.1016/j.jbusres.2009.10.011>
- Brocato, E.D., Voorhees, C.M., & Baker, J. (2012). Understanding the influence of cues from other customers in the service experience: A scale development and validation. *Journal of Retailing*, 88(33), 384–398. <https://doi.org/10.1016/j.jretai.2012.01.006>
- Chebat, J.C., Gélinas-Chebat, C. & Therrien, K. (2005). Lost in a mall, the effects of gender, familiarity with the shopping mall and the shopping values on shoppers' wayfinding processes. *Journal of Business Research*, 58(11), 1590-1598. <https://doi.org/10.1016/j.jbusres.2004.02.006>
- Chebat, J.C., Haj-Salem, N. Y., & Oliveira, S. (2014). Why shopping pals make malls different? *Journal of Retailing and Consumer Services*, 21(2), 77–85. <https://doi.org/10.1016/j.jretconser.2013.10.002>
- Diamantopoulos, A., & Siguaw, J.A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17(4), 263–282. <https://doi.org/10.1111/j.1467-8551.2006.00500.x>
- Du, J., Fan, X., & Feng, T. (2011). Multiple emotional contagions in service encounters. *Journal of the Academy of Marketing Science*, 39(3), 449–466. <https://doi.org/10.1007/s11747-010-0210-9>
- 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.A., Machleit, K.A., & Barr, T.F. (2005). Perceived retail crowding and shopping satisfaction: The role of shopping values. *Journal of Business Research*, 58(8), 1146–1153. <https://doi.org/10.1016/j.jbusres.2004.01.005>
- Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50. <https://doi.org/10.2307/3151312>

- Hanks, L., Line, N. & Kim, W.G.W. (2017). The impact of the social servicescape, density, and restaurant type on perceptions of interpersonal service quality. *International Journal of Hospitality Management*, 61, 35-44. <https://doi.org/10.1016/j.ijhm.2016.10.009>
- Hanks, L., Line, N. & Yang, W. (2017). Status seeking and perceived similarity: a consideration of homophily in the social servicescape. *International Journal of Hospitality Management*, 60, 123-132. <https://doi.org/10.1016/j.ijhm.2016.10.007>
- Hart, P.M., & Dale, R. (2014). With or without you: The positive and negative influence of retail companions. *Journal of Retailing and Consumer Services*, 21(5), 780–787. <https://doi.org/10.1016/j.jretconser.2014.06.004>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Kiecker, P., & Hartman, C.L. (1994). Predicting buyers' selection of interpersonal sources: The role of strong ties and weak ties. *Advances in Consumer Research*, 21, pp. 464–469.
- Kim, H.S. & Choi, B. (2016). The effects of three customer-to-customer interaction quality types on customer experience quality and citizenship behavior in mass service settings. *Journal of Services Marketing*, 30(4), 384-397. <https://doi.org/10.1108/JSM-06-2014-0194>
- Krishnan, R., Martin, X., & Noorderhaven, N.G. (2006). When does trust matter to alliance performance? *Academy of Management Journal*, 49(5), 894–917. <https://doi.org/10.5465/AMJ.2006.22798171>
- Latané, B. (1981). The psychology of social impact. *American Psychologist*, 36(4), 343–356. <http://dx.doi.org/10.1037/0003-066X.36.4.343>
- Lazarus, R.S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, 44, 1–21. <https://doi.org/10.1146/annurev.ps.44.020193.000245>

- Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, NY: Springer.
- Lindsey-Mullikin, J., & Munger, J.L. (2011). Companion shoppers and the consumer shopping experience. *Journal of Relationship Marketing*, 10(1), 7–27. <https://doi.org/10.1080/15332667.2011.549385>
- Lucia-Palacios, L., Pérez-López, R. & Polo-Redondo, Y. (2016). Cognitive, affective and behavioural responses in mall experience: A qualitative approach. *International Journal of Retail & Distribution Management*, 44(1), 4-21. <https://doi.org/10.1108/IJRDM-05-2014-0061>
- Machleit, K.A., Eroglu, S.A., & Powell-Mantel, S. (2000). Perceived retail crowding and shopping satisfaction: What modifies this relationship? *Journal of Consumer Psychology*, 9(1), 29–42. https://doi.org/10.1207/s15327663jcp0901_3
- Maier, E., & Wilken, R. (2014). The impact of stress on consumers' willingness to pay. *Psychology and Marketing*, 31(9), 774–785. <https://doi.org/10.1002/mar.20733>
- Mathur, A., Moschis, G.P. & Lee (1999). Stress and consumer behavior: coping strategies of older adults. *Journal of Marketing Practice: Applied Marketing Science*, 5(6/7/8), 233-247. <https://doi.org/10.1108/EUM00000000004572>
- Mattila, A.S., & Wirtz, J. (2008). The role of store environmental stimulation and social factor son impulse purchasing. *Journal of Services Marketing*, 22(7), 562–567. <https://doi.org/10.1108/08876040810909686>
- Mehta, R. (2013). “Understanding perceived retail crowding: a critical review and research agenda”. *Journal of Retailing and Consumer Services*, 20(6), 642-649. <https://doi.org/10.1016/j.jretconser.2013.06.002>
- Mehta, R., Sharma, N.K., & Swami, S. (2012). The impact of perceived crowding on consumers' store patronage intentions: Role of optimal stimulation level and shopping motivation. *Journal of Marketing Management*, 29(7/8), 812–835. <http://dx.doi.org/10.1080/0267257X.2012.729075>
- Moschis, G.P. (2007). Stress and consumer behavior. *Journal of the Academy of Marketing Science*, 35(3), 430–444. <https://doi.org/10.1007/s11747-007-0035-3>
- Nunnally, J.C. (1978). *Psychometric theory*. New York, NY: McGraw-Hill.

- 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. <https://doi.org/10.1016/j.jbusres.2010.02.011>
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Ng, C.F. (2003). Satisfying shoppers' psychological needs: From public market to cybermall. *Journal of Environmental Psychology*, 23(4), 439–455. [https://doi.org/10.1016/S0272-4944\(02\)00102-0](https://doi.org/10.1016/S0272-4944(02)00102-0)
- Nguyen, D.T., DeWitt, T., Russell-Bennett, R. (2012). Service convenience and social servicescape: retail vs hedonic setting. *Journal of Services Marketing*, 26(4), 265-277. <https://doi.org/10.1108/08876041211237569>
- Reynolds, K.E., & Beatty, S.E. (1999). Customer benefits and company consequences of customer–salesperson relationships in retailing. *Journal of Retailing*, 75(1), 11–32. [https://doi.org/10.1016/S0022-4359\(99\)80002-5](https://doi.org/10.1016/S0022-4359(99)80002-5)
- Ringle, C.M., Wende, S., & Becker, J.M. (2015). SmartPLS 3. SmartPLS, Bönningstedt. Available at <http://www.smartpls.com>.
- Rocco, R.A. & Whalen, D.J. (2014). Teaching yes, and ... improv in sales classes. Enhancing student adaptive selling skills, sales performance, and teaching evaluations. *Journal of Marketing Evaluation*, 36(2), 197-208. Doi: 10.1177/0273475314537278
- Rosenbaum, M.S., Kelleher, C., Friman, M., Kristensson, P. & Scherer, A. (2017). Replacing place in marketing: a resource-exchange place perspective, *Journal of Business Research*, 79, 281-289. <https://doi.org/10.1016/j.jbusres.2017.01.009>
- Rosenbaum, M.S. & Massiah, C.A. (2007). When customer receive support from other customers. Exploring the influence of intercustomer social support on customer voluntary performance. *Journal of the Academy of Marketing Science*, 9(3), 257-270. <https://doi.org/10.1177/1094670506295851>
- Rosenbaum, M.S. & Montoya, D.Y. (2007). Am I welcome here? Exploring how ethnic consumer assess their place identity. *Journal of Business Research*, 60(3), 206-214. <https://doi.org/10.1016/j.jbusres.2006.09.026>

- Rosenbaum, M.S., Ward, J., Walker, B.A. & Ostrom, A.L. (2007). A cup of coffee with a dash of love. An investigation of commercial social support and third-place attachment. *Journal of Service Research*, 10(1), 43-59. <https://doi.org/10.1177/1094670507303011>
- Rychalski, A., & Hudson, S. (2017). Asymmetric effects of customer emotions on satisfaction and loyalty in a utilitarian service context. *Journal of Business Research*, 71(1), 84–91. <https://doi.org/10.1016/j.jbusres.2016.10.014>
- Russell, J.A., & Pratt, G. (1980). A description of the affective quality attributed to environments. *Journal of Personality and Social Psychology*, 38(2), 311–322. <https://doi.org/10.1037/0022-3514.38.2.311>
- Ruvio, A., Somer, E., & Rindfleisch, A. (2014). When bad gets worse: The amplifying effect of materialism on traumatic stress and maladaptive consumption. *Journal of the Academy of Marketing Science*, 42(1), 90–101. <https://doi.org/10.1007/s11747-013-0345-6>
- Sengupta, A.S., Balaji, M.S. & Krishnan, B.C. (2015). How customers cope with service failure? A study of brand reputation and customer satisfaction. *Journal of Business Research*, 68(3), 665-674. <https://doi.org/10.1016/j.jbusres.2014.08.005>
- Sharma, A., & Stafford, T.F. (2000). The effect of retail atmospherics on customers' perceptions of salespeople and customer persuasion: an empirical investigation. *Journal of Business Research*, 49(2), 183–191. [https://doi.org/10.1016/S0148-2963\(99\)00004-1](https://doi.org/10.1016/S0148-2963(99)00004-1)
- Sujan, M., Sujan, H., Bettman, J.R., & Verhallen, T.M.M. (1999). Sources of consumers' stress and stress and their coping strategies. *European Advances in Consumer Research*, 4, 182–187.
- Swickert, R.J., Rosentreter, C.J., Hittner, J.B. & Mushrush, J.E. (2002). Extraversion, social support processes, and stress. *Personality and Individual Differences*, 32(5), 877-891. [https://doi.org/10.1016/S0191-8869\(01\)00093-9](https://doi.org/10.1016/S0191-8869(01)00093-9)
- Tombs, A. & McColl-Kennedy, J.R. (2003). Social-servicescape conceptual model. *Marketing Theory*, 3(4), 447-475. <https://doi.org/10.1177/1470593103040785>

- Van Dolen, W., Lemmink, J., de Ruyter, K., & de Jong, A. (2002). Customer–sales employee encounters: A dyadic perspective. *Journal of Retailing*, 78(4), 265–279. [https://doi.org/10.1016/S0022-4359\(02\)00067-2](https://doi.org/10.1016/S0022-4359(02)00067-2)
- Wetzels, M., Odekerken-Schoder, G., & Van Oppen, C. (2009). Using PLS path modeling for assessing hierarchical construct models: guidelines and empirical illustration. *MIS Quarterly*, 33(1), 177–195. <http://hdl.handle.net/1959.13/1058508>
- Whiting, A. (2009). Push, scream, or leave: how do consumers cope with crowded retail stores? *Journal of Services Marketing*, 23(7), 487–495. <https://doi.org/10.1108/08876040910995275>
- Wieseke, J., Geigenmüller, A., & Kraus, F. (2012). On the role of empathy in customer–employee interactions. *Journal of Service Research*, 15(3), 316–331. <https://doi.org/10.1177/1094670512439743>
- Zboja, J.J., Clark, D.L., & Haytko, D.L. (2016). An offer you can't refuse: Consumer perceptions of sales pressure. *Journal of the Academy of Marketing Science*, 44(6), 806–821. <https://doi.org/10.1007/s11747-015-0468-z>
- Zhang, X., Li, S., Burke, R.R. & Leykin, A. (2014). An examination of social influence on shopper behavior using video tracking data. *Journal of Marketing*, 78(5), 24-41. <https://doi.org/10.1509/jm.12.0106>

Table 1. Measurement model (n=567)

	Loadings/ weights	VIF	Cronbach's alpha	Composite reliability	AVE
Stress (ST)					
ST1	0.815		0.944	0.958	0.821
ST2	0.944				
ST3	0.959				
ST4	0.922				
ST5	0.881				
Perceived crowding (PC)					
Perceived human crowding	0.834***	1.205			
PHC1	0.687		0.896	0.924	0.661
PHC2	0.847				
PHC3	0.657				
PHC4	0.898				
PHC5	0.883				
PHC6	0.872				
Perceived spatial crowding	0.388***	1.189			
PSC1	0.920		0.729	0.878	0.784
PSC2	0.849				
Sales associates' task competence (TC)					
TC1	0.911		0.893	0.924	0.751
TC2	0.886				
TC3	0.836				
TC4	0.832				
Sales associates' interaction competence (IC)					
IC1	0.930		0.955	0.967	0.881
IC2	0.954				
IC3	0.935				
IC4	0.935				

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

AVE: average variance extracted; VIF: variance inflation factor

Table 2. Measurement model (n=382)

	Loadings/ weights	VIF	Cronbach's alpha	Composite reliability	AVE
Stress (ST)					
ST1	0.774		0.941	0.956	0.814
ST2	0.939				
ST3	0.957				
ST4	0.910				
ST5	0.919				
Perceived crowding (PC)					
Perceived human crowding	0.845***	1.212			
PHC1	0.716		0.904	0.926	0.677
PHC2	0.843				
PHC3	0.686				
PHC4	0.895				
PHC5	0.896				
PHC6	0.875				
Perceived spatial crowding	0.397***	1.260			
PSC1	0.905		0.764	0.895	0.809
PSC2	0.894				
Sales associates' task competence (TC)					
TC1	0.930		0.912	0.937	0.787
TC2	0.931				
TC3	0.846				
TC4	0.838				
Sales associates' interaction competence (IC)					
IC1	0.942		0.957	0.968	0.885
IC2	0.952				
IC3	0.931				
IC4	0.937				
Similarity in shopping preferences (SSP)					
SSP1	0.826		0.918	0.925	0.712
SSP2	0.833				
SSP3	0.858				
SSP4	0.858				
SSP5	0.843				

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

AVE: average variance extracted; VIF: variance inflation factor

Table 3. Fornell and Larcker's (1981) criterion

	n=567				n=382				
	ST	PC	TC	IC	ST	PC	TC	IC	SSP
ST	0.906				0.902				
PC	NA	NA			NA	NA			
TC	-0.175	NA	0.867		-0.155	NA	0.887		
IC	-0.200	NA	0.766	0.939	-0.224	NA	0.765	0.941	
SSP					-0.085	NA	0.141	0.140	0.844

IC: sales associates' interaction competence; N.A.: not available; PC: perceived crowding; SSP: similarity in shopping preferences; ST: stress; TC: sales associates' task competence. The diagonals contain the squared roots of AVE.

Table 4. HTMT criterion

	n=567				n=382				
	ST	PC	TC	IC	ST	PC	TC	IC	SSP
ST									
PC	NA				NA				
TC	0.177	NA			0.148	NA			
IC	0.206	NA	0.835		0.230	NA	0.823		
SSP					0.076	NA	0.148	0.130	

IC: sales associates' interaction competence; N.A.: not available; PC: perceived crowding; SSP: similarity in shopping preferences; ST: stress; TC: sales associates' task competence.

Table 5. Results

Independent variables	Dependent variable: Stress						
	n=567					n=382	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
PC	0.267***	0.253***	0.265***	0.266***	0.254***	0.313***	0.307***
TC (H1 _a)	-0.014	0.020	-0.003	-0.019	0.013	0.069	0.063
IC (H2 _a)	-0.153**	-0.151**	-0.139**	-0.152**	-0.146**	-0.230***	-0.223***
C (H3 _a)	-0.074**	-0.075**	-0.078**	-0.071**	-0.073**		
SSP (H4 _a)						-0.044	-0.054*
PCxTC (H1 _b)		-5.961*e ^{-6***}			-4.993*e ^{-6*}		
PCxIC (H2 _b)			-4.359*e ^{-6**}		-1.366*e ⁻⁶		
PCxC (H3 _b)				6.168*e ⁻⁶	6.120*e ⁻⁶		
PCxSSP (H4 _b)							-2.859*e ^{-6**}
Shopping goals	0.028	0.026	0.025	0.029	0.026	-0.013	-0.017
Day of week	0.073**	0.076**	0.079**	0.072**	0.077**	0.061*	0.067*
Age	-0.054*	-0.055**	-0.056*	-0.051*	-0.053*	-0.096**	-0.087**
Gender	0.004	0.008	0.002	0.005	0.008	0.053*	0.049*
Frequency	-0.014	-0.014	-0.008	-0.015	-0.013	-0.024	-0.012
SRMR	0.036	0.036	0.036	0.036	0.036	0.049	0.049
R ²	0.115	0.128	0.124	0.116	0.128	0.154	0.161
Chi ²	872.034***	869.611***	868.853***	872.500***	869.872***	1,387.266***	1,371.947***
VIF (range)	(1.026; 2.465)	(1.031; 2.548)	(1.027; 2.484)	(1.012; 2.472)	(1.017; 2.563)	(1.036; 2.453)	(1.036; 2.456)

Notes: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (one-tailed tests).

Model 1: Direct effects; Model 2: Including the moderating effect of TC; Model 3: Including the moderating effect of IC; Model 4: Including the moderating effect of SSP; Model 5: Full model

C: companionship; IC: sales associates' interaction competence; PC: perceived crowding; SSP: similarity in shopping preferences, ST: stress; TC: sales associates' task competence; NFI: Normed Fit Index; SRMR: standardized root mean square residuals; VIF: variance inflation factor

Appendix. Measurement scales

Items	Description
Stress (Baker & Wakefield, 2012; Russell & Pratt, 1980)	
	How often did you experience the following sensations in the establishment XXX?
ST1	Frenzy
ST2	Tension
ST3	Anxiety
ST4	Nervousness
ST5	Acceleration
Perceived crowding (Eroglu et al., 2005; Machleit et al., 1994; Machleit et al., 2000)	
Perceived human crowding	
	In the establishment XXX...
PHC1	There were a lot of customers.
PHC2	I felt under pressure.
PHC3	There were not many people during my visit.
PHC4	It was crowded.
PHC5	I felt constrained.
PHC6	I experienced feelings of confinement.
Perceived spatial crowding	
PSC1	XXX was open and airy.
PSC2	XXX was very spacious.
Sales associates' task competence (Brexendorf et al., 2010; van Dolen et al., 2002)	
TC1	I think the employee I interacted with was very capable.
TC2	This employee was organized.
TC3	This employee was an expert in the product I was looking for.
TC4	The employee lived up to my expectations.
Sales associates' interaction competence (Brexendorf et al., 2010; van Dolen et al., 2002)	
IC1	This employee enjoyed assisting me.
IC2	I believe this employee likes to help customers.
IC3	I felt as though this employee was easy to talk to.
IC4	I believe this employee is a cooperative person.
Similarity in shopping preferences (adapted from Brocato, Voorhees, & Baker, 2012)	
SSP1	I identify with my companion in terms of our skills, abilities, and shopping preferences.
SSP2	I'm similar to my companion in terms of skills, abilities, and shopping preferences.
SSP3	My companion is similar to me in shopping preferences.
SSP4	My companion and I have a similar background in shopping.
SSP5	I feel comfortable with my companion when shopping.

Figure 1. Theoretical framework

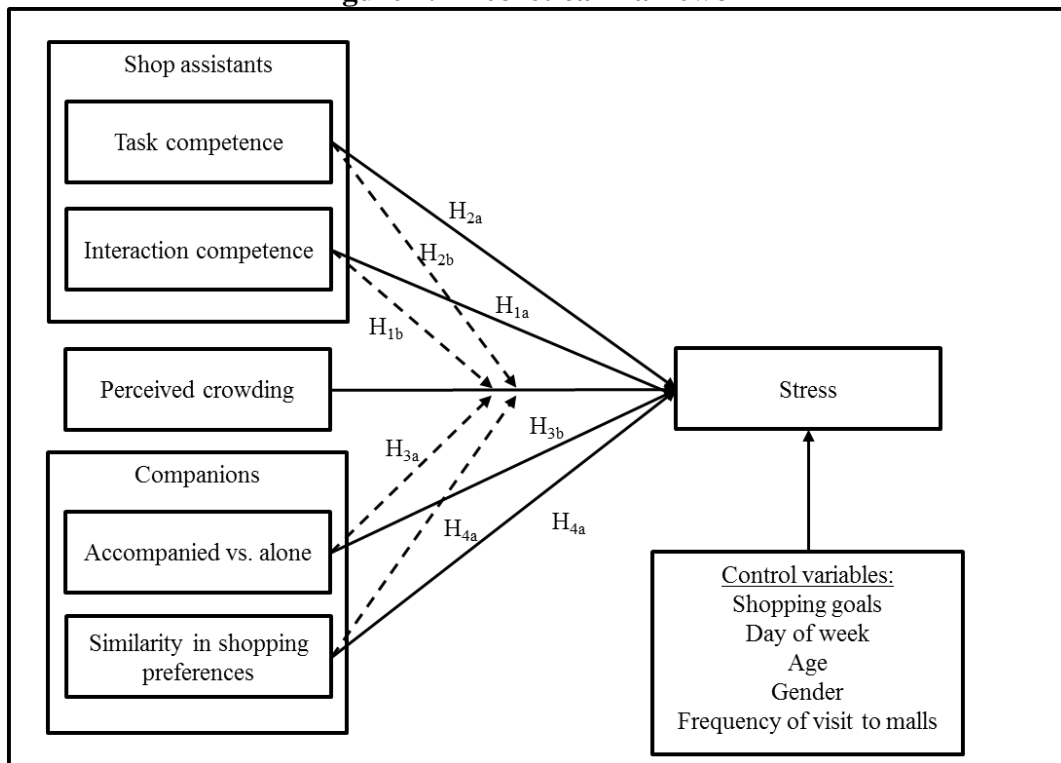
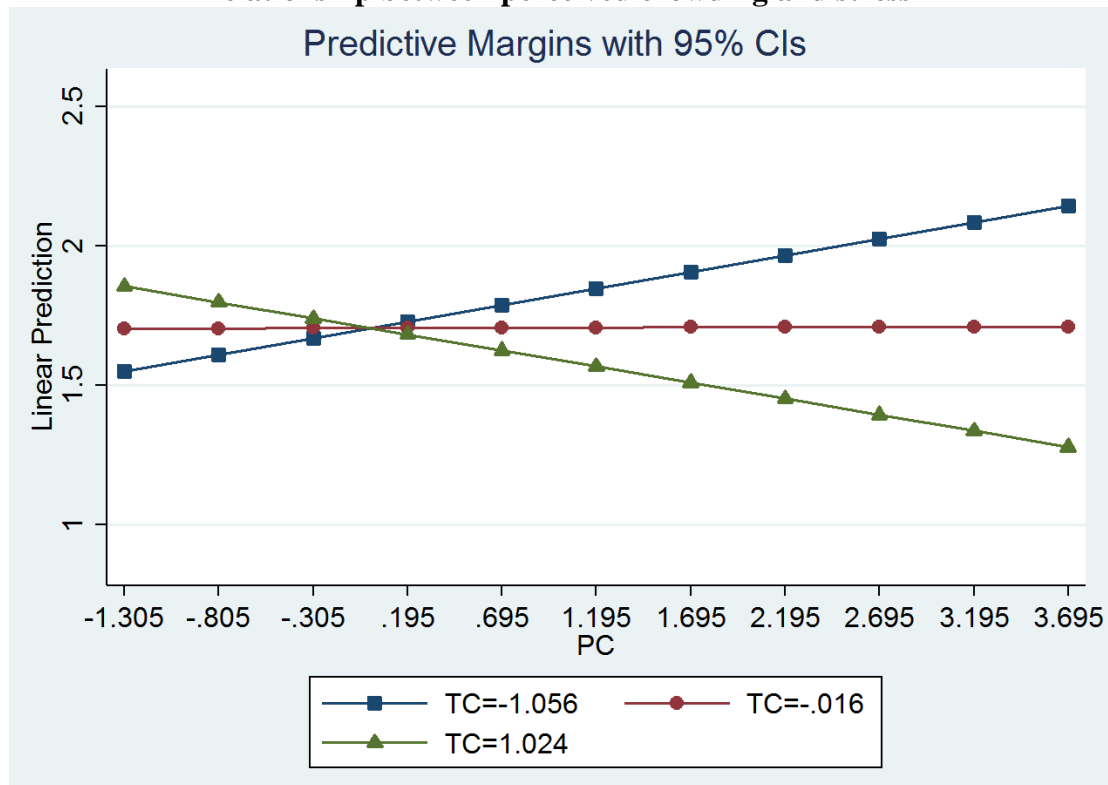
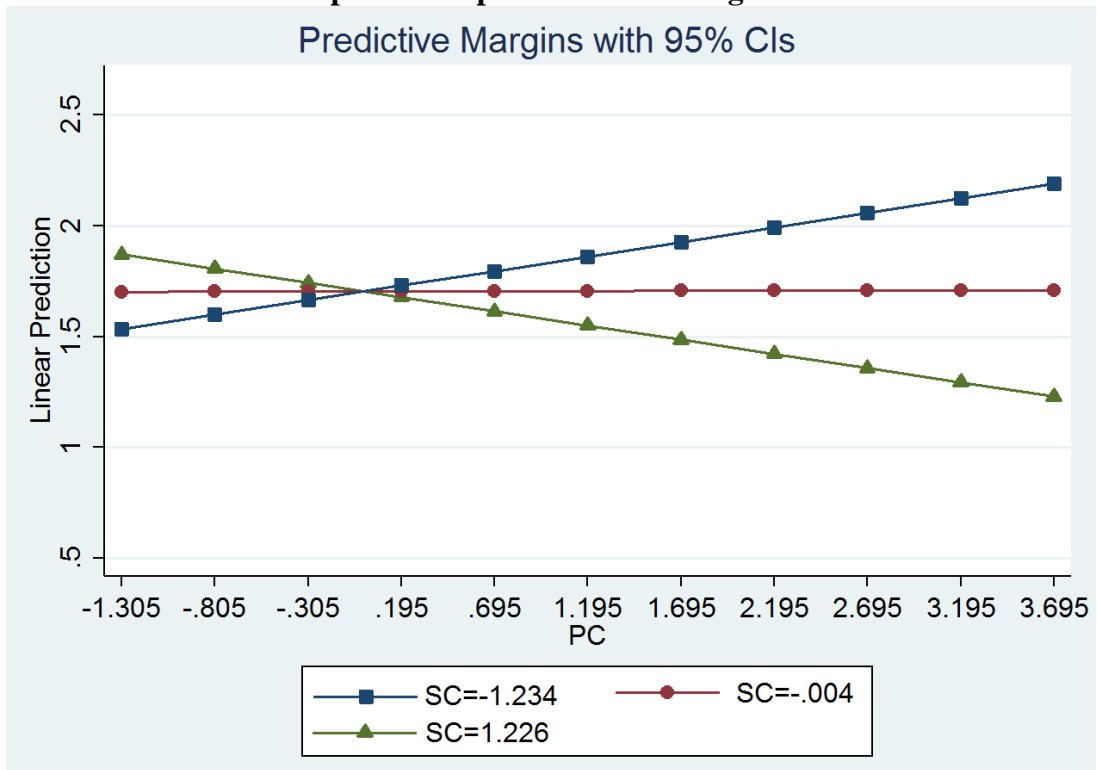


Figure 2. Moderating effect of shop assistants' task competence on the relationship between perceived crowding and stress



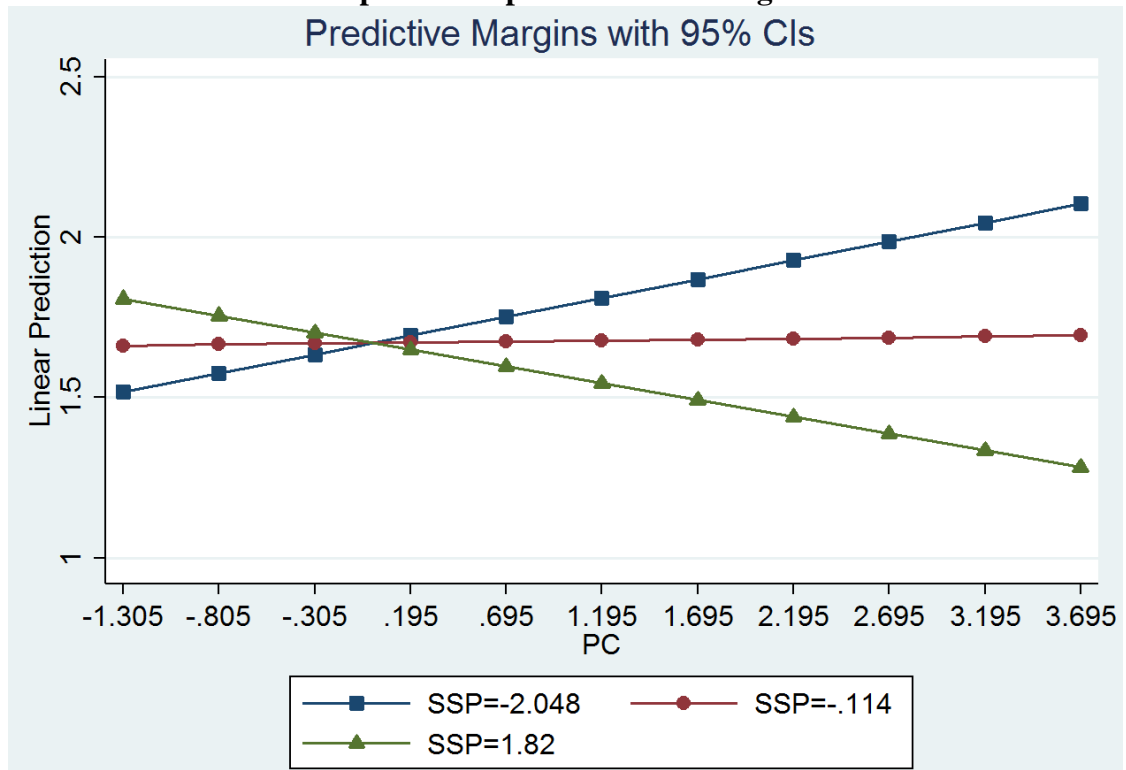
TC: Shop assistants' task competence; PC: Perceived crowding; ST: Stress; CIs: Confidence Intervals.

Figure 3. Moderating effect of shop assistants' interaction competence on the relationship between perceived crowding and stress



SC: Shop assistants' interaction competence; PC: Perceived crowding; ST: Stress; CIs: Confidence Intervals.

Figure 4. Moderating effect of similarity in shopping preferences on the relationship between perceived crowding and stress



PC: perceived crowding; SSP: similarity in shopping preferences; ST: stress. CIs: Confidence Intervals.

BULLET POINTS: Can social support alleviate stress while shopping in crowded retail environments?

- Shopping in crowded retail environments is stressful for customers.
- Individuals can use social support as a resource to cope with stress.
- Shop assistants can provide social support through their task and interaction competences.
- Accompanied shopping alleviates stress in crowded retail environments.

AUTHORS BIOGRAPHIES

Laura Lucia-Palacios is an Assistant Professor in the Department of Marketing at the University of Zaragoza, Zaragoza, Spain. She has published research papers in international journals such as Journal of Business Research, Internet Research and International Entrepreneurship Management Journal among others. Her research interests are focused on customer experience management, new technologies, franchising and pioneering advantages.

Raúl Pérez-López is a PhD Student in the Department of Marketing at the University of Zaragoza, Zaragoza, Spain. His research interests are focused on consumer behavior, customer experience management and e-marketing.

Yolanda Polo-Redondo is a Professor in the Department of Marketing at the University of Zaragoza, Zaragoza, Spain. She has published research papers in international journals such as Journal of Service Research, Journal of Interactive Marketing, Industrial Marketing Management and Strategic Management among others. Her main areas of research are strategic marketing, services marketing, customer experience management and new technologies.