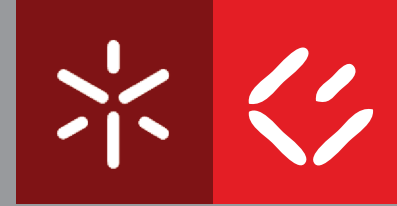




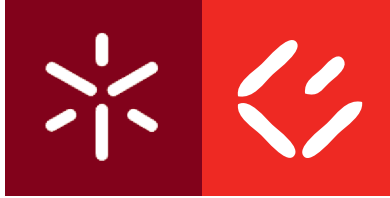
**Universidade do Minho**  
Escola de Economia e Gestão

Maher Georges Elmashhara

**The Impact of Social Interaction,  
Entertainment, and Atmospherics on  
Emotions and Shopping Outcomes:  
Evidence from Shopping Malls**







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Emotions and Shopping Outcomes:  
Evidence from Shopping Malls**

Ph.D. Thesis  
Ph.D. in Business Administration

A work made under the supervision of  
**Professor Ana Maria dos Santos Costa Soares**

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*In memory of Melia and George*

## Statement of Integrity

I hereby declare having conducted this academic work with integrity. I confirm that I have not used plagiarism or any form of undue use of information or falsification of results along the process leading to its elaboration.

I further declare that I have fully acknowledged the Code of Ethical Conduct of the University of Minho.

# O Impacto da Interação Social, do Entretenimento e da Atmosfera nas Emoções e nas Compras: Evidência dos Centros Comerciais

## Resumo

Compreender o comportamento do consumidor pode contribuir para ajudar os retalhistas a melhorarem a experiência de compra dos seus clientes. Realizada no contexto dos centros comerciais, esta tese procura enriquecer esta compreensão, investigando os efeitos da interação social com os vendedores, do entretenimento e das variáveis interiores gerais do ambiente de loja no comportamento do consumidor, nomeadamente, na satisfação do consumidor e no desejo de permanecer no centro comercial. Além disso, a tese considera o papel dos estados emocionais dos compradores como mediadores nas relações estudadas.

Desenvolvemos três estudos com base em questionários a uma amostra de 318 compradores de centros comerciais, no primeiro estudo e 484 no segundo e terceiro estudos. Usou-se a Modelagem de Equações Estruturais (SEM) para testar o modelo proposto. A avaliação empírica revela várias relações significativas entre as variáveis sociais, recreativas e ambientais estudadas, por um lado, e o comportamento de compradores, por outro. Além disso, os resultados suportam o papel crucial desempenhado pelos estados emocionais dos compradores na mediação da relação entre os antecedentes e consequências estudadas.

Esta tese contribui para a literatura sobre retalho e comportamento do consumidor de várias formas. Em primeiro lugar, esta investigação foca-se especificamente nos atributos sociais ao investigar a relação entre interação social com vendedores e a satisfação do consumidor. Em segundo lugar, a tese propõe uma classificação detalhada e abrangente das opções de entretenimento em entretenimento permanente e entretenimento temporário e baseado em eventos. Além disso, examina separadamente, pela primeira vez, o efeito de cada tipo de entretenimento na satisfação e no desejo de permanecer no centro comercial. Em terceiro lugar, a fim de obter uma avaliação global do ambiente sensorial envolvente, adapta e mede a influência das variáveis gerais do ambiente de loja no comportamento de compra. Em quarto lugar, a tese atual considera, pela primeira vez, o papel mediador desempenhado pelos estados emocionais dos compradores ao investigar várias relações entre os antecedentes estudados e as respostas comportamentais.

Finalmente, com base nos resultados, várias implicações de gestão são sugeridas para os retalhistas, principalmente gestores e promotores de centros comerciais. Adicionalmente, apresentam-se as limitações da pesquisa que podem oferecer direções e oportunidades para pesquisas futuras.

**Palavras-chave:** Atmosfera; Centros comerciais; Comportamento do consumidor; Desejo de permanecer; Entretenimento; Estados emocionais; Interação social; Retalho; Satisfação.

# The Impact of Social Interaction, Entertainment, and Atmospheric on Emotions and Shopping Outcomes: Evidence from Shopping Malls

## Abstract

Understanding consumer behavior may help retailers enhance their customers' shopping experience. In the context of shopping malls, the current thesis seeks to enrich this understanding by investigating the effects of social interaction with salespeople, entertainment and surrounding atmospheric's general interior variables on consumer behavior, namely, shopper satisfaction and the desire to stay at the shopping mall. In addition, the thesis takes into consideration the role of shoppers' emotional states as a mediator in the studied relationships.

Three survey-based studies were conducted with a sample size of 318 mall shoppers in the first study and 484 mall shoppers in the second and third studies. Structural Equation Modeling (SEM) was performed to test the proposed model. The empirical assessment reveals several significant relationships between the studied social, recreational and environmental variables, on the one hand, and shopper behavior, on the other. Moreover, findings support the crucial role played by the shoppers' emotional states in mediating the relationship between the studied antecedents and outcomes.

The contribution of this thesis to retailing and consumer behavior literature is fourfold. First, it focuses specifically on social attributes when investigating the relationship between social interaction with salespeople and shopper satisfaction. Second, the thesis provides a detailed and comprehensive classification of entertainment options into permanent entertainment, and temporary and event-based entertainment. Furthermore, it examines separately, for the first time, the effect of each type of entertainment on satisfaction and the desire to stay in the mall. Third, in order to have an overall assessment of the surrounding sensorial environment, it adapts and measures the influence of atmospheric's general interior variables on shopping behavior outcomes. Fourth, the current thesis considers, for the first time, the mediating role played by the shoppers' emotional states when investigating several relations between the studied antecedents and behavioral responses.

Finally, based on the findings, several managerial implications are suggested for retailers, mainly mall managers and developers. Furthermore, research limitations that may offer directions and opportunities for future research are presented.

**Keywords:** Atmospheric; Consumer behavior; Desire to stay; Emotional states; Entertainment; Retailing; Shopper satisfaction; Shopping Malls; Social interaction.

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EEG Research Day 2016 (March 11, 2016). The Role of the Attractiveness Factors on Customer Satisfaction: A Comparative Study between Shopping Malls and Shopping Streets in Braga City.

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## List of abbreviations

**ROPO:** Research Online, Purchase Offline

**PAD:** Pleasure, Arousal, and Dominance

**PENT:** Permanent Entertainment

**TENT:** Temporary and Event-Based Entertainment

**APCC:** Associação Portuguesa de Centros Comerciais

**ICSC:** The International Council of Shopping Centers

**GIV:** General Interior Variables

**S-O-R:** Stimulus-Organism-Response

**CFA:** Confirmatory Factor Analysis

**SEM:** Structural Equation Modelling

**EFA:** Exploratory Factor Analysis

**AVE:** Average Variance Extracted

# Chapter 1

## INTRODUCTION

### 1.1. Research justification

The retail landscape and consumer shopping habits have undergone unprecedented changes in the past few years. Online shopping is often pointed out as playing the most significant role in this process. It has also been anticipated that major players in the retail industry would be working online besides their offline business (Kazancoglu & Aydin, 2018; Wang & Goldfarb, 2016). However, as stated by many experts “Offline retail is not dead”. The intersection between in-store and online shopping is becoming more crucial (e.g., Galipoglu, Kotzab, Teller, Hüseyinoglu, & Pöppelbuß, 2018; Hübner, Kuhn, & Wollenburg, 2016; Picot-Coupey, Huré, & Piveteau, 2016; Saghiri, Wilding, Mena, & Bourlakis, 2017; Verhoef, Kannan, & Inman, 2015) and there are several links between both types of shopping experiences, like the new technologies used in traditional and e-retailing, which increase the connections between online and offline shopping (Krasonikolakis, Vrechopoulos, Pouloudi, & Dimitriadis, 2018; Mcleod, Liu, & Axline, 2014; Parise, Guinan, & Kafka, 2016). In fact, today’s consumers expect integrated shopping experiences (Krasonikolakis et al., 2018), therefore, there is a need for today’s retailers to adopt an omni-channel strategy and be present both in physical stores and online platforms, to address the intersection of offline- and online-shopping (Yoo, Peña, & Drumwright, 2015). For example, many consumers choose what to buy in-store based on an online research (Bell, Gallino, & Moreno, 2014; Vázquez et al., 2014). For that reason, major online retailers, like Amazon, are opening physical stores (Melacini, Perotti, Rasini, & Tappia, 2018; Nadar, 2018). Therefore, consumers’ buying journeys are increasingly complex, and in this scenario, in-store shopping has not lost its importance.

The worldwide transformations in the retailing industry have led to changes in the market share and importance of different shopping destinations (Chotipanich & Issarasak, 2017). These changes include the dominance of shopping malls over other market agglomerations such as shopping streets and town centers (Ozuduru, Varol, & Yalciner Ercoskun, 2014; Teller, 2008). “Nearly 25% of all retail sales in Europe are estimated to take place in

shopping centres and these centres also make a vital contribution to retail employment, directly employing over 4 million workers across Europe” (de Mattos, Teixeira, & Pinto, 2014, p. 6). Moreover, these so-called modern style markets have become a part of our global culture, dominating the social life of a large part of the population (Haytko & Baker, 2004; Shafiee & Es-Haghi, 2017). As such, at the level of physical in-store shopping, admittedly, shopping malls have taken over, and they are privileged locations for conducting studies in retailing and consumer behavior.

Furthermore, shopping is not solely a physical act but it also has an emotional involvement (Terblanche, 2018), and the importance of investigating the effect of shopper emotional states on behavior is well-recognized in the literature (e.g., Burns & Neisner, 2006; Das & Varshneya, 2017; Herter, Santos, & Pinto, 2014; Mccoll-kennedy, Patterson, Smith, & Brady, 2009; Ou & Verhoef, 2017; Richins, 1997; Rippé, Smith, & Dubinsky, 2018; Rychalski & Hudson, 2017). Kokho Sit, Hoang, and Inversini (2018, p. 173) state “consumer decision-activities and emotions complement each other”. Therefore, eliciting emotions in the shopping area to enhance the shopping experience is needed, and more studies serving this purpose are required (Achar, So, Agrawal, & Duhachek, 2016; Das & Varshneya, 2017; Ieva, Canio, & Ziliani, 2018). The shoppers’ emotional states appear in the literature as a connection linking different antecedents with consumer behavior outcomes (Alsaggaf & Althonayan, 2018; Eroglu, Machleit, & Davis, 2003; Im & Ha, 2011; Loureiro & Roschk, 2014; Machleit & Mantel, 2001; Varela-Neira, Vázquez-Casielles, & Iglesias-Argüelles, 2008; Vieira, 2013). While utilitarian factors reflect the task-related value, hedonic shopping value captures the emotional side of the shopping experience (Babin & Attaway, 2000; Jones, Reynolds, & Arnold, 2006), therefore in order to enhance consumer emotions, research should focus on understanding antecedents that influence the hedonic shopping value (El Hedhli, Zourrig, & Chebat, 2016; Gentile, Spiller, & Noci, 2007; Stein & Ramaseshan, 2016).

Research in retailing has investigated a vast number of consumer behavior antecedents and discussed how these factors impact on different types of behavioral responses. Several of these antecedents have a rich tradition in influencing utilitarian shopping visits. As stated by Jones et al. (2006, p. 974) “utilitarian shopping values reflect the acquisition of products and/or information in an efficient manner and can be viewed as reflecting more task-oriented, cognitive, and non-emotional outcome of shopping”. Examples of these

antecedents are convenience and accessibility (Guido, Belk, Rizzo, & Pino, 2018; Pauwels & Neslin, 2015; Reimers, 2014; Reimers & Clulow, 2014), merchandise and packaging factors (Miquel, Caplliure, Pérez, & Bigné, 2017; Newman, Howlett, & Burton, 2014), price, promotions, and return policies (Chatterjee & Kumar, 2017; Nakhata & Kuo, 2017; Shirai, 2017), product quality (Pan & Zinkhan, 2006; Vega-Vázquez, Castellanos-Verdugo, & Oviedo-Garcia, 2017), retail tenant mix (Teller, 2008; Wakefield & Baker, 1998), display and shelf-space (He & Oppewal, 2018; Ketron, 2018; Roggeveen, Nordfält, & Grewal, 2016), layout and design (Iyer & Smith, 2015; Rosenbaum, Ramirez, & Camino, 2018), retail location (Dolega, Pavlis, & Singleton, 2016; Reigadinha, Godinho, & Dias, 2017) and parking (Mingardo & Meerkerk, 2012; Reimers, 2013).

The second group of consumer behavior antecedents has been mostly studied in relation to hedonic shopping values (Abdul Karim, Kumar, & Abd Rahman, 2013), and it plays an important role in affecting the emotional side of the shopping experience which is one of the main focuses in this thesis. Jones et al. (2006, p. 974) state that “Hedonic shopping value reflects the value received from the multisensory, fantasy and emotive aspects of the shopping experience”. Hence, main antecedents in this category are atmospherics and environment factors (Bloch & Kamran-Disfani, 2018; El-Adly & Eid, 2016; Holmqvist & Lunardo, 2015; Loureiro, Koo, & Ribeiro, 2013), social factors (Hsu, Chen, & Kumar, 2018; Li, Lin, & Ho, 2017; Ramamoorthy, Gunasekaran, Roy, Rai, & Senthilkumar, 2018) and entertainment (Kesari & Atulkar, 2016; Sadachar & Fiore, 2018; Triantafyllidou, Siomkos, & Papafilippaki, 2017).

Marketing research has recognized that shopping is a social phenomenon (Kim, Kim, Choi, & Trivedi, 2019; Mehta, 2013). Social interaction between shoppers and salespeople has been habitually measured along with other attributes of the service quality factor (Cronin, Brady, & Hult, 2000; Deb & Lomo-David, 2014; Jarratt, Marr, & Prendergast, 1996; Ramamoorthy et al., 2018; Seock, 2009). Although several studies focus on salespeople as a component of the service quality factor (Ahmad, 2012; Anselmsson, 2006; Bradley & LaFleur, 2016; De Juan, 2004; Mumel & Prodnik, 2005; Sit, Merrilees, & Birch, 2003; Teller, 2008; Vega-Vázquez et al., 2017), the empirical scales used to measure this factor contain non-social attributes, and do not specifically capture the social relations in the shopping areas. Therefore, there is a need to focus solely on this dimension and investigate how it affects consumers and whether it can be used as a factor to enhance the shopping

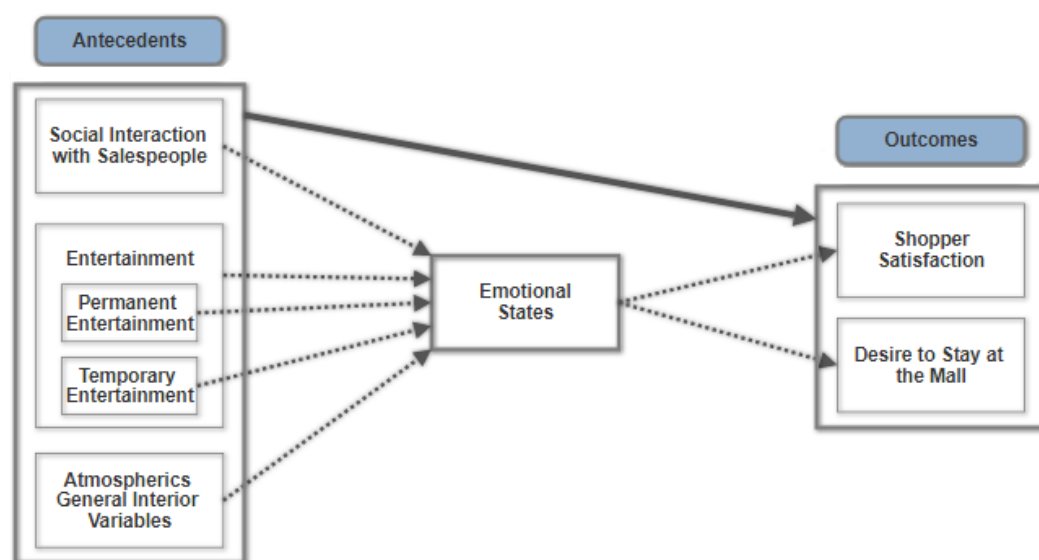
experience. Understanding the social aspects in shopping areas is crucial and it allows the use of social attractiveness as a pull factor for offline shopping.

In addition, shopping is also described as an entertaining, recreational, and emotional experience (McCarville, Shaw, & Ritchie, 2013; Triantafillidou et al., 2017). Consequently, shopping mall developers try to increase the mall recreational component to enrich the shoppers' experience (Blut, Teller, & Floh, 2018; Moss, 2007; Sadachar & Fiore, 2018). Several studies investigated entertainment in shopping areas, however, there is a persistent need to consider shoppers' emotions (De Nisco & Napolitano, 2006) and understand how entertainment affects consumers' different emotional states. Furthermore, there is a need for a systematic typology of entertainment attributes to identify the main components of permanent and temporary entertainment. Moreover, despite the fact that a few authors have provided some conceptual work describing and classifying entertainment attributes (Anselmsson, 2016; Kang & Kim, 1999; Sit et al., 2003), there are no empirical studies examining independently the role of different types of entertainment.

In addition, atmospherics is one of the most active areas of retailing studies, and there are several studies addressing the role of the whole environment by discussing a few atmospheric variables like music, lighting, cleanliness, etc. (e.g., Chang, Eckman, & Yan, 2011; Mohan, Sivakumaran, & Sharma, 2013; Vega-Vázquez et al., 2017). However, there are no studies, to the best of the author's knowledge, that address and consider all the atmospheric variables when studying the role of the shopping area's environment. Most of the related studies address specific atmosphere factors (e.g., Bai, Van Woensel, Kendall, & Burke, 2013; Hübner & Schaal, 2017; Kusumowidagdo, Sachari, & Widodo, 2016; Lange, Rosengren, & Blom, 2016; Parguel, Delécolle, & Valette-Florence, 2016; Rosenbaum, Otalora, & Ramírez, 2016), or only consider a limited number of attributes to measure atmosphere (e.g., Deka, 2018; Seock, 2009). Hence, there is a need for macro-level research on the effect of the whole atmosphere on consumer behavior. We consider the typology of Turley and Milliman (2000) to be a comprehensive classification of atmosphere factors that provides an advanced guide for empirical studies allowing for the examination of the effect of each category in consumer behavior outcomes.

Based on the above, the current thesis aims to investigate the relationship between the social interaction with salespeople, different types of entertainment and atmospherics on

the one side, and shopper behavior represented by satisfaction and the desire to stay at the shopping mall, on the other. Moreover, the thesis also considers the mediating role played by the shoppers' emotional states represented by the Pleasure-Arousal-Dominance scale (PAD) of Mehrabian and Russell (1974) in the studied relationships. The investigation includes three studies. The first study focuses on discussing the effect of social interaction and entertainment on satisfaction; the second further extends the study of entertainment by considering the role of each recreational type, i.e., permanent entertainment (PENT), and temporary and event-based entertainment (TENT); Finally, the third study moves towards the examination of General Interior Variables (GIV), the atmospherics classification provided by Turley and Milliman (2000) and their impact on shopper satisfaction and desire to stay. The studies' models can be summed up by an overall conceptual model encompassing all of the hypotheses of the three studies (Figure 1).



**Figure 1.** Overall research model

## 1.2. Research problem and objectives

Shopping is a multidimensional phenomenon “that nearly everyone participates in” (Bergadaà, Faure, & Perrien, 1995, p. 17). Shopping malls are privileged locations to study the multifaceted nature of offline shopping. In fact, shoppers go to shopping malls for different reasons, not only to shop, but also for fun, and for the sake of entertaining themselves (Babin & Attaway, 2000; Gorter, Nijkamp, & Klamer, 2003; McCarville et al., 2013). Consequently, mall trips are influenced by many factors. In addition to the available entertainment facilities and activities, we argue that social factors and the surrounding

atmosphere are key factors for the mall experience because they influence shoppers regardless of whether they are shopping, spending time, or enjoying the mall's amusement. Subsequently, and following repeated calls for research (Arentze, Oppewal, & Timmermans, 2005; Chebat, Sirgy, & Grzeskowiak, 2010; Chotipanich & Issarasak, 2017; De Juan, 2004; El Hedhli, Chebat, & Sirgy, 2013; Kaihatu & Spence, 2016; Rahman, Wong, & Yu, 2016; Reutterer & Teller, 2009), the current thesis aims to answer the following research questions to contribute towards a better understanding of a few specific issues in the field of consumer behavior in the retailing industry, specifically in the context of shopping malls.

- What is the role of social interaction with salespeople, entertainment and atmospherics in enhancing mall shoppers' emotions and behavior?

Particularly, this thesis endeavors to find answers for the following questions:

- (1) What are the effects of both social interaction with salespeople and entertainment on shopper satisfaction?
- (2) How can mall entertainment attributes be classified?
- (3) What are the effects of each type of entertainment on shopper behavior?
- (4) What are the effects of atmospherics general interior variables (GIV) on shopper behavior?
- (5) What is the role played by the shopper's emotional states in the relationship between all of the studied variables and shopper behavior?

From the aforementioned questions, the following general research objectives were proposed:

- (1) To determine the effect of entertainment, and the surrounding social and sensorial environment on shopper behavior.
- (2) To inventory different mall entertainment attributes and propose an all-encompassing classification.
- (3) To understand the role played by the shopper emotional states in the studied relationships.

Table 1 demonstrates the distribution of research questions and objectives over the three empirical studies.

**Table 1.** Distribution of research questions and objectives over empirical research

	Chapter 3	Chapter 4	Chapter 5
Study	Study 1	Study 2	Study 3
Title	The Impact of Entertainment and Social Interaction with Salespeople on Mall Shopper Satisfaction: The Mediating Role of Emotional States	The Influence of Types of Entertainment on Mall Shoppers' Emotions and Behavior	The Influence of Atmospherics General Interior Variables on Shoppers' Emotions and Behavior
Research questions	#1 & #5	#2, #3, & #5	#4 & #5
Research objectives	#1 & #3	#1, #2 & #3	#1 & #3
Main variables	<ul style="list-style-type: none"> <li>- Social interaction with salespeople</li> <li>- Entertainment</li> <li>- Emotional states</li> <li>- Shopper satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>- PENT</li> <li>- TENT</li> <li>- Emotional states</li> <li>- Shopper satisfaction</li> <li>- The desire to stay at the mall</li> </ul>	<ul style="list-style-type: none"> <li>- GIV</li> <li>- Emotional states</li> <li>- Shopper satisfaction</li> <li>- The desire to stay at the mall</li> </ul>

### 1.3. Research contribution

Previous research has demonstrated that different factors affect consumer behavior in physical retail destinations. However, there is a dearth of research on some important issues related to the emotional side of shopping visits. The present work is designed to understand the impact of three main consumer behavior antecedents and shopper emotional states on behavioral responses relying on the Stimulus-Organism-Response (S-O-R) model (e.g., Ladhari, Souiden, & Dufour, 2017; Lunardo & Mbengue, 2013). The thesis focuses on the emotional side of the shopping experience and, hence, concentrates on understanding the role of the multisensory, fantasy and social antecedents that impact on shoppers' emotions, and therefore, on their behavior. Specifically, the effects of social interaction with salespeople, mall entertainment and atmospherics are investigated.

The general contribution of this study lies on understanding the role of the three studied antecedents in influencing the emotions and consequently the behavioral responses of mall shoppers. This will help develop consumer behavior knowledge, specifically in which refers

to the consumer actions in the marketplace and the underlying motives for those actions (Howard, 1977). The thesis specifically backs the social exchange theory according to which buyers and sellers should not be treated solely, but seen as social actors influenced by their two-party relationships (Bagozzi, 1975, 1978). Moreover, the current thesis adds to the cognitive approach of consumer behavior which tries to explore and understand the mental structures and processes which mediate between stimulus and response (Kihlstrom, 1987). Psychology studies have identified and developed a wide range of factors that mediate this relationship: perception, learning, memory, thinking, emotion and motivation (Sternberg, 1996). The current thesis addresses shoppers' emotional states as a mediator between shoppers' stimulus and responses.

The findings of our thesis support the significant and different roles played by each of the three factors. The present research, therefore, makes contributions to the literature on social, recreational, sensory and emotional motivations to the shopping approach. This allows us to provide shopping malls' managers with a set of recommendations that allow for the enhancement of their customers' emotional experience and help improve shopping malls as retail destinations in a very critical and challenging time for the retailing industry. The thesis has filled different gaps relating to each of the studied variables as is further discussed in each study.

Below, further contributions of this study are discussed for each shopping antecedent.

### **1.3.1. At the level of social interaction with salespeople**

The first empirical study in this thesis focuses on the social interaction between shoppers and salespeople and examines the social effect of the human factor in the shopping mall by excluding the non-social aspects, and concentrating on the social attributes, unlike previous studies which consider some non-social attributes when measuring this relationship. The impact of this factor on shoppers' emotions and satisfaction has been investigated. The findings of this study indicate that social interaction with salespeople affects shopper satisfaction through the emotional states. These findings help us to provide different recommendations to mall managers on how they can empower their employees to enhance satisfaction and, therefore, the whole mall experience.

### **1.3.2. At the entertainment level**

At the level of mall entertainment, previous research has yielded mixed findings about the importance and the way this factor influences behavioral responses. This thesis inventories and categorizes different entertainment attributes into permanent entertainment (PENT) and temporary and special events entertainment (TENT) (Table 14). The provided classification is deemed as the most comprehensive, since in addition to recreational facilities and activities that appeared previously in the literature, it encompasses more attributes identified in current modern shopping malls. Moreover, the first and second studies address, for the first time, the mediating role of the shopper's emotional states in the relationship between entertainment and shopper behavior. The same mediating role is considered when studying the relations between each type of entertainment and shopper behavior. Both studies support the significant role of entertainment in affecting shoppers' emotions and behavior. Finally, the second study adds to the research regarding the influence of entertainment on a new outcome in consumer behavior. Particularly, it studies the relationship between types of entertainment and the desire to stay at the shopping mall. The present findings allow us to provide different recommendations, especially regarding the need to merge retail and entertainment formats, and to change the mall mix in favor of the recreational facet of malls, thus pointing into directions for transforming the retail settings.

### **1.3.3. At the level of atmospherics**

Past research has made well-recognized contributions towards the study of the shopping environment. However, studies adopting a comprehensive approach to shopping atmosphere are lacking, and studies regarding many atmospherics' variables are also lacking. The third study contributes to the macro-level studies by examining the whole general interior variables when studying the effect of atmospherics on shopper behavior. Moreover, the aforementioned study adds to the research about specific atmospheric variables' impact on behavioral responses, namely shopper satisfaction and, in particular, the far less studied variable, the desire to stay at the shopping mall. The findings of the third study demonstrate how different formulas of atmospherics influence different shopper's emotions and behavioral responses. These findings enable us to provide mall

managers with a set of recommendations regarding leveraging the whole environmental cues to enhance the shopping experience.

It is worth mentioning, that the second and third studies also provide a broad discussion regarding a new study path between shopper emotional states and the desire to stay at the mall. This path had not been studied before in the literature, and having a better understanding of it enhanced the theoretical and practical contribution of this thesis.

#### **1.4. Study delimitations**

Understanding shopper behavior can contribute towards understanding how to attract and satisfy mall visitors, therefore, improving the decisions made by mall planners and managers. The current thesis focuses only on four consumer behavior's antecedents, in particular, social interaction with salespeople, entertainment, atmospherics and shopper emotional states. Moreover, the conducted research focuses on two specific outcomes: shopper satisfaction and the desire to stay at the shopping mall. Therefore, and although there are other indicators of consumer behavior, this thesis focuses on conducting investigations aiming to fill gaps in research relating solely to the aforementioned factors. Consequently, the theoretical framework of this work was also limited to the studied factors.

Moreover, the empirical part of the current thesis is conducted in two Northern Portuguese cities: Braga and Guimarães. The studies focus on shoppers who usually do their shopping in the biggest four shopping malls in these two cities; Braga Parque and Nova Arcada in Braga, and Guimarães Shopping and Espaço Guimarães in Guimarães. Hence, people who do not usually shop in these malls were excluded from our research. These four shopping malls have been chosen because they are the top shopping destinations in the two cities. Most importantly, these shopping malls offer a range of similar entertainment venues. Entertainment is an essential factor in this thesis, hence, we made sure that the shopping malls have a similar entertainment mix. Each of the chosen malls encompass a cinema complex, a food court and play areas for kids, besides other recreational shops and activities. Moreover, the studied malls provide, at least, some temporary entertainment activities and special events from time to time. Entertainment events during special seasons like Christmas and Easter are also noted.

Finally, the current thesis implements methodologies that use quantitative techniques. This approach results in a number of delimitations. For instance, the adopted scales that measure the studied factors are sourced from previous scales in the related literature. No qualitative research has been done to generate new scales. Moreover, in the questionnaires, we included closed-ended Likert scale responses, rather than including additional open-ended responses. This serves the methodological approach that was followed. In addition, it might also make some people more willing to take and complete the survey.

## **1.5. Thesis structure**

This thesis consists of six chapters. The first chapter is a general introduction where research justification, research problems and objectives, research contribution and study delimitations are explained. The philosophical aspects of the research, methodology, research methods including research design and strategy, survey design and data analysis techniques are presented in the second chapter.

The third chapter encompasses the first study “The impact of entertainment and social interaction with salespeople on mall shopper satisfaction: the mediating role of emotional states”. This study focuses on the questions regarding the effect of social interaction with salespeople, entertainment and shopper emotional states on shopper behavior. The study begins with an introduction that presents the aims of the study. Afterwards, the related theoretical background is discussed and hypotheses are proposed. Later on, the methods are explained and results are presented. Lastly, the findings, theoretical and practical contributions, limitations and avenues for future research are discussed.

The fourth chapter includes the second study “The Influence of Types of Entertainment on Mall Shoppers' Emotions and Behavior”. As in the first study, this research enfolds the entertainment factor; it provides a broad typology of the recreational facilities and activities in shopping malls, then investigates the relationship between the derived entertainment types on one side and the shopper emotions and behavior on the other. As in the first study, it encompasses an introduction that includes the research gaps and questions, a theoretical background, a section explaining the methods, and finally, a discussion of results, theoretical and managerial contributions, limitations and future research.

The fifth chapter includes the third empirical study which investigates the atmospherics general interior variables (GIV); “The Influence of Atmospherics General Interior Variables on Shoppers’ Emotions and Behavior”. This study applies the systematic categorization developed by Turley and Milliman (2000) to conduct a thorough evaluation of the shopping sensory environment. In the first section of this study, a related introduction is proposed along with research questions. In the second section, the theoretical background of atmospherics, shoppers’ emotional states and GIV are discussed, and the hypotheses are proposed. The third and the fourth sections present, respectively, the methods and the results. Lastly, we discuss the results, theoretical contributions, managerial implications, limitations and future research.

In the final chapter - the sixth chapter - we jointly discuss the findings of the three studies which answer the research questions. We also discuss the overall contributions to theory and practice. Finally, we conclude by discussing the main limitations, and by offering several directions for future research.

Based on the foregoing, we provide Table 2 which clarifies the structure of our thesis.

**Table 2.** Thesis structure

Title	
Resumo - Abstract	
Chapter 1	
Introduction	Research justification
	Research problem and objectives
	Research contribution
	Study delimitations
	Thesis structure
Chapter 2	
Methodology	The philosophical aspects of research
	Research methods

<b>Chapter 3</b>	
<b>Study 1</b>	The Impact of Entertainment and Social Interaction with Salespeople on Mall Shopper Satisfaction: The Mediating Role of Emotional States
<b>Chapter 4</b>	
<b>Study 2</b>	The Influence of Types of Entertainment on Mall Shoppers' Emotions and Behavior
<b>Chapter 5</b>	
<b>Study 3</b>	The Influence of Atmospherics General Interior Variables on Shoppers' Emotions and Behavior
<b>Chapter 6</b>	
<b>General Conclusion</b>	Introduction
	Main conclusions
	General theoretical contributions
	General managerial contributions
	Limitations and future research
<b>References</b>	
<b>Appendices</b>	

## Chapter 2

### METHODOLOGY

This chapter discusses the methodological approach utilized for this study. In order to offer an adequate argument for the method adopted, first of all, there is a comprehensive discussion included the philosophical aspects of this thesis. In addition, the chapter discusses the research method which includes research strategy, survey design, and the justification of choosing the quantitative research method, and the available measurement scales which have been used in this thesis, and the reasons for our options. Moreover, the chapter explains several issues, like the pretest of the questionnaires, research population and sample, data analysis including sample characteristics, assessment of the measurement model using Confirmatory Factor Analysis (CFA), and test of hypotheses and conceptual research model procedure using Structural Equation Modelling (SEM), and the bootstrapping method.

#### **2.1. The philosophical aspects of research**

##### **2.1.1. Exploratory and confirmatory research**

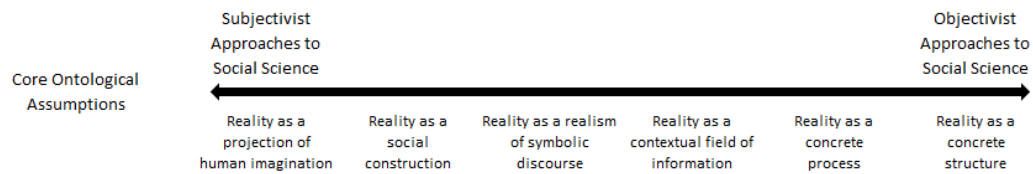
On a philosophical level, different typologies of research are used. Broadly, exploratory/confirmatory typology should be applied first. Zikmund and Babin (2006, p. 133) state “Philosophically, research can be considered as either exploratory or confirmatory. Confirmatory research tests hypotheses. The results of these test help decision making by suggesting a specific course of action. Exploratory research, on the other hand, takes a different approach. For instance, exploratory research may well be needed to develop the ideas that lead to research hypotheses in the first place”. Moreover, McQuarrie (2011) refers to the exploratory and confirmatory research as the main two fundamental modes of doing market research; exploratory research reflects the discovery orientation, and generating new ideas and possibilities, while confirmatory research provides a way to select better options after narrowing preferences. Therefore, as the word indicates, an exploratory research aims to unveil a new domain. Exploratory research is required when more information is needed for understanding a problem, opportunity or phenomenon (Wiid & Diggines, 2010), while confirmatory research takes place when one

is searching for evidence to prove or disprove some idea (Adèr, 2008). Confirmatory research is generally a lot less productive than exploratory research, as it just discovers whether a certain number of hypotheses are significant or not, nevertheless, there is a persistent need for this type of research especially in a well-studied field in order to establish more developed theories and clear models (Gerring, 2001). Based on the above, and since the research model adapted in the current thesis reflects a set of hypotheses derived from prior studies about the impact of several potential factors on shopper behavior in malls, the current thesis can be considered as a confirmatory study. Shopping experiences and consumer behavior are well-studied topics, and the aim of this thesis is to develop and contribute to consumer behavior theory by providing a clear model dealing with the environmental and emotional side of the shopping experience.

### **2.1.2. Research paradigm: ontology, epistemology and methodology**

The methodology encompasses the approaches to the application of scientific methods to the investigation of phenomena, it also refers to the logic of the decision-making process in scientific research (Mouton & Marais, 1988). However, choosing the methodology is only one of the issues that concern the researcher when acknowledging the research paradigm (Sobh & Perry, 2006), two more essential elements of philosophical assumptions drive scientific research (Guba & Lincoln, 1994). The first element is ontology, which refers to the beliefs about the nature of reality and related known facts (Schraw & Olafson, 2008), as expressed by Ramsay (1870, p. 2), "Ontology is the science of things existing". On the ontological level, four basic beliefs consistent with four paradigms can be distinguished; naïve realism, critical realism, historical realism, and critical relativism (Guba & Lincoln, 1994; Perry, Riege, & Brown, 1999). The following thesis is considered as postpositivist research, hence it follows critical realism. Postpositivist researchers seek to obtain and measure data and facts from an observable phenomena reflecting an existing reality but focus on explaining their models and results within a context or contexts since the absolute truth can never be found (Neuman, 2011), moreover, they are reductionists since they intend to reduce thoughts into a small, discrete set of ideas to test (Creswell, 2009). Moreover, Morgan and Smircich (1980) discuss the network of basic assumptions characterizing the subjective-objective debate within social science and summarize how the ontological positions differ between subjectivism and objectivism as is in Figure 2.

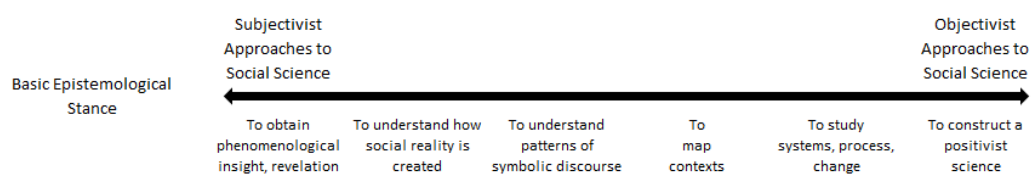
In brief, on an ontological level, the reality is real and apprehensible in subjectivism, while from the objectivism point of view, reality is real but only imperfectly and probabilistically apprehensible (Guba & Lincoln, 1994).



**Figure 2.** The core ontological assumptions in the subjective-objective debate within social science

**Source:** based on Morgan and Smircich (1980)

The second element of philosophical assumptions that drives scientific research is epistemology, which refers to the discipline that systematically inquires the knowledge generated through scientific research. Zagzebski (2008, p. 1) states “Epistemology is the philosophical study of knowing and other desirable ways of believing and attempting to find the truth. It is a central field of philosophy because it links the two most important objects of philosophical inquiry: ourselves and the world”. Hence, epistemology links researcher to reality and allow getting more knowledge about the world (Guba & Lincoln, 1994; Snape & Spencer, 2003). On the epistemological level, in positivism, findings are true and the researcher is objective by viewing reality through a “one-way mirror”, while in realism, findings are probably true and the researcher is value-aware and needs to triangulate any perceptions he/she is collecting (Guba & Lincoln, 1994; Perry et al., 1999; Sobh & Perry, 2006). Morgan and Smircich (1980) summarize how the epistemological positions differ between subjectivism and objectivism as in Figure 3. Epistemologically, positivism and postpositivism, which reflect an objectivism perspective defend the use of a scientific approach by developing numeric measures to produce acceptable knowledge. While interpretivism focus on the details of the situation and its reality, and pragmatism on practical applied research, integrating different viewpoints to improve the understanding of the data (Hallebone & Priest, 2009; Wahyuni, 2012).



**Figure 3.** The basic epistemological stance in the subjective-objective debate within social science

**Source:** based on Morgan and Smircich (1980)

Based on the above, the research paradigm is an overall conceptual framework containing the three elements of ontology, epistemology, and methodology, and allows the researcher to work within this framework.

This should be consistent with the two basic meanings of paradigm as per Kuhn (1962). This author sees the paradigm, first, as a specific model-solutions referring to answers to certain problems that have proved to be successful, which the scientific community recognizes and adopts. Second, as a set of shared commitments, referring to the basic commitments shared by a community accountable for developing a scientific field (Kuhn, 1962). Bryman (2003, p. 4) states "... a 'paradigm' is a cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, and how results should be interpreted, ...". However, Guba and Lincoln (1994, p. 109-111) describe the basic beliefs regarding the three elements of ontology, epistemology, and methodology (as in Table 3) by demonstrating how ontology ranges from naïve realism according to which "an apprehendable reality is assumed to exist, driven by immutable natural laws and mechanisms" to relativism where "realities are apprehendable in the form of multiple, intangible mental constructions, socially and experientially based, local and specific in nature, and dependents for their form and content on the individual persons or groups holding the constructions". Moreover, the authors demonstrate epistemology in positivism to consider the researcher as an independent entity from the investigated "object", while this independence gradually diminishes in postpositivism, and critical theory until reaching a perspective of an interactively link between researcher and object in constructivism. Finally, the authors reveal methodology, in positivism, to present hypotheses in a propositional form and verify them by subjecting them to empirical test, while in postpositivism, the methodology aims to redress some problems by collecting situational information about people "to assist in determining the meanings and purposes that people ascribe to their actions". Furthermore, the methodology in critical theory requires a dialectical dialogue between the investigator and the subjects of the inquiry to transform ignorance and misapprehensions into more informed consciousness. While in constructivism, "the variable and personal nature of social constructions suggests that individual constructions can be elicited and refined only through interaction between and among investigator and respondents".

**Table 3.** Basic beliefs (Metaphysics) of alternative inquiry paradigms

Item	Positivism	Postpositivism	Critical Theory et al.	Constructivism
<b>Ontology</b>	Naive realism – “real” reality but apprehendable	Critical realism - “real” reality but only imperfectly and probabilistically apprehendable	Historical realism - virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallized over time	Relativism - local and specific constructed realities
<b>Epistemology</b>	Dualist/objectivist; findings true	Modified dualist/objectivist; critical tradition/community; findings probably true	Transactional/subjectivist; value-mediated findings	Transactional/subjectivist; created findings
<b>Methodology</b>	Experimental/manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental/manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	Dialogic/dialectical	Hermeneutical /dialectical

Source: (Guba & Lincoln, 1994, p. 109).

Moreover, Table 4 displays again the basic beliefs that relate to research paradigms as they are outlined in Wahyuni (2012, p. 70) based on (Guba & Lincoln, 2005; Hallebone & Priest, 2009; Saunders, Lewis, Thornhill, & Wilson, 2009). Table 4 differs from Table 3 by also providing the different viewpoints of paradigms in term of the axiology, the role of values in research and the researcher's stance. In terms of axiology, the positivists' researchers maintain an objective stance, while postpositivists' researchers are biased by their cultural views, experiences and upbringing. “Interpretivists researchers take the stance of the emic or insider perspective, which means to study the social reality from the perspective of the people themselves. Here, the experiences and values of both research participants and researchers substantially influence the collection of data and its analysis” (Wahyuni, 2012, p. 71). Finally, in pragmatism research, the values of the researchers play a large role and influence the interpretation of the results as the researchers tends to adopt both objective and subjective points of view.

**Table 4.** Fundamental beliefs of research paradigms in social sciences

Fundamental Beliefs	Research Paradigm			
	Positivism (Naïve realism)	Postpositivism (Critical Realism)	Interpretivism (Constructivism)	Pragmatism
<b>Ontology: the position on the nature of reality</b>	External, objective and independent of social actors	Objective. Exist independently of human thoughts and beliefs or knowledge of their existence, but is interpreted through social conditioning (critical realist)	Socially constructed, subjective, may change, multiple	External, multiple, view chosen to best achieve an answer to the research question
<b>Epistemology: the view on what constitutes acceptable knowledge</b>	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalizations, reducing phenomena to simplest elements	Only observable phenomena can provide credible data, facts. Focus on explaining within a context or contexts	Subjective meanings and social phenomena. Focus upon the details of situation, the reality behind these details, subjective meanings and motivating actions	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data

Fundamental Beliefs	Research Paradigm			
	Positivism (Naïve realism)	Postpositivism (Critical Realism)	Interpretivism (Constructivism)	Pragmatism
<b>Axiology: the role of values in research and the researcher's stance</b>	Value-free and etic	Value-laden and etic	Value-bond and emic	Value-bond and etic-emic
	Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Research is value-laden; the researcher is biased by world views, cultural experiences and upbringing	Research is value bond, the researcher is part of what is being researched, cannot be separated and so will be subjective	Values play a large role in interpreting the results, the researcher adopting both objective and subjective points of view
<b>Research Methodology: the model behind the research process</b>	Quantitative	Quantitative or qualitative	Qualitative	Quantitative and qualitative (mixed or multi-method design)

**Source:** Based on Wahyuni (2012), which itself was based on Guba and Lincoln (2005), Hallebone and Priest (2009), and Saunders et al. (2009).

Ontologically, although this thesis considers reality is assumed to exist and the authors try to implement the widest possible critical examination and explanations, however, it is acknowledged that this reality cannot be perfectly apprehendable due to the complicated human intellectual mechanisms which constitute the main part of the research problem. Epistemologically, although an observable phenomena provided the required data, and the author did his best to abandon dualism, the derived results were never treated as law-like generalizations, yet, they were explained within the context of the preexisting consumer behavior knowledge, and these explanations were always compared with previous research. However, our research did not focus on specific situations which can be observed only qualitatively. Finally, in terms of methodology, although this thesis examines the proposed model by implementing empirical research, however, data have been collected by asking our sample subjects about how they express their shopping trips, their emotions, and how they see shopping malls they shop in to help understanding their behavior in the light of their views. Based on the above, these ontological, epistemological, and methodological choices place us on the postpositivism paradigm; based on Table 3 and Table 4, this means ontologically our research follows a critical realism viewpoint by respecting the

independency of human thoughts and beliefs but also by interpreting the existed reality through social conditioning. Epistemologically, we rely on observable phenomena as a source of credible data, however, we consider our findings as probably true findings discussing them in the context of previous knowledge. Methodologically, this study is developed as quantitative research considers the sample subjects' viewpoint to understand their behaviors. Finally, in terms of the axiological viewpoint, although the researcher tried his best to be unbiased when interpreting the results, for sure his viewpoints, the culture he belongs to, and his life experiences must have some effects on these interpretations.

Moreover, a specific paradigm leads not only to “epistemological” differences but also leads to changes in the followed research techniques. Guba and Lincoln (1994, p. 112) state “Differences in paradigm assumptions cannot be dismissed as mere “philosophical” differences; implicitly or explicitly, these positions have important consequences for the practical conduct of inquiry, as well as for the interpretation of findings and policy choices”. However, Table 5, which has been developed by Guba and Lincoln (1994), provides the paradigm positions and the consequences and practical issues related to each paradigm.

**Table 5.** Paradigm positions on selected practical issues

Issue	Positivism	Postpositivism	Critical Theory et al.	Constructivism
<b>Inquiry aim</b>	Explanation: prediction and control		Critique and transformation; restitution and emancipation	Understanding; reconstruction
<b>Nature of knowledge</b>	Verified hypotheses established as facts or laws	Nonfalsified hypotheses that are probable facts or laws	Structural/historical insights	Individual reconstructions coalescing around consensus
<b>Knowledge accumulation</b>	Accretion – “building clocks” adding to “edifice of knowledge”; generalizations and cause-effect linkages		Historical revisionism; generalization by similarity	More informed and sophisticated reconstructions; vicarious experience

Issue	Positivism	Postpositivism	Critical Theory et al.	Constructivism
<b>Goodness or quality criteria</b>	Conventional benchmarks of "rigor"; internal and external validity, reliability, and objectivity		Historical situatedness; erosion of ignorance Action stimulus	Trustworthiness and authenticity and misapprehensions;
<b>Values</b>	Excluded-influence denied		Included-formative	
<b>Ethics</b>	Extrinsic; tilt toward deception		Intrinsic; moral tilt toward revelation	Intrinsic; process tilt toward revelation; special problems
<b>Voice</b>	"Disinterested scientist" as informer of decision makers; policy makers, and change agents		"Transformative intellectual" as advocate and activist	"Passionate participant" as facilitator of multi-voice reconstruction
<b>Training</b>	Technical and quantitative; substantive theories	Technical; quantitative and qualitative; substantive theories	Resocialization; qualitative and quantitative; history; values of altruism and empowerment	
<b>Accommodation</b>	Commensurable		Incommensurable	
<b>Hegemony</b>	In control of publication, funding, promotion, and tenure		Seeking recognition and input	

**Source:** (Guba & Lincoln, 1994, p. 112).

Based on Table 5, the paradigm chosen for our research has been reflected on different practical issues; inquiry aim, nature of knowledge, knowledge accumulation, values, training, accommodation, etc. The chosen paradigm might have several points in common with positivism but have several differences comparing to both constructivism, and critical theory and related ideological relations.

Finally, worth mentioning, at the level of organization theory, the main four paradigms are radical humanist, radical structuralist, interpretative, and functionalist (Burrell & Morgan, 1979). The current thesis is an objective and regulation labeled study, accordingly, it falls under the functionalist paradigm. Indeed, the functionalist features are clear in this thesis.

The functionalist paradigm assumes the presence of a real phenomenon that can be measured empirically by applying the methods of natural sciences. Moreover, functionalism focuses on the problem to generate knowledge to be applied, this enhances the presence of the pragmatic orientation (Burrell & Morgan, 1979).

## **2.2. Research methods**

### **2.2.1. Research design**

There are three types of advanced research designs: quantitative, qualitative, and mixed methods (Creswell, 2009). In retailing and consumer behavior research, the most recognized is the quantitative research (Duarte, Costa e Silva, & Ferreira, 2018; Lim, 2017; Vilches-Montero, Nik Hashim, Pandit, & Bravo-Olavarria, 2018). However, research in the field uses also the other two research designs; qualitative (Homburg, Jozi, & Kuehnl, 2017; Kokho Sit et al., 2018; Priporas, Stylos, & Fotiadis, 2017), and mixed methods (Cruz-Cárdenas, González, & del Val Núñez, 2016; Krasonikolakis et al., 2018; So, Oh, & Min, 2018).

The present thesis follows a quantitative design, therefore applying quantitative techniques in examining the overall research model. The quantitative design suits the followed paradigms mentioned and discussed in the previous section, and several other important reasons drive us to conduct quantitative research. The studied research model is highly structured and laid out in advance of the empirical study (Creswell, 2009). The objective of this thesis is to test a causal relationship between different variables (Guba & Lincoln, 2005), and the tested phenomena can be represented by empirical indicators that reflect the truth (Sale, Lohfeld, & Brazil, 2002). Creswell (2009, p. 18) states “Certain types of social research problems call for specific approaches. For example, if the problem calls for (a) the identification of factors that influence an outcome, (b) the utility of an intervention, or (c) understanding the best predictors of outcomes, then a quantitative approach is best. It is also the best approach to test a theory or explanation”. It is worth mentioning that using quantitative data collection techniques has also helped the author in overcoming the language barrier (Harris & Roberts, 2003). The population of our study is mall shoppers in the North of Portugal, while the author is not a native speaker of Portuguese.

### **2.2.2. Research strategy**

There are two main quantitative strategies that have been used widely in retailing and consumer behavior research: survey research (Arora & Sahney, 2018; Grimmer, Grimmer, & Mortimer, 2018; Wenzel & Benkenstein, 2018), and experimental research (Berry, Burton, & Howlett, 2018; Green, Allen, & Peloza, 2018; Liu, Batra, & Wang, 2017). In the current thesis, with the intent of generalizing from a sample to a population (Babbie, 1990; Groves et al., 2005), we have conducted three survey research which provides a quantitative or numeric description of the consumer opinion, and behavior. The survey is a useful research strategy that helps in describing the characteristics of a large population. No other research method can provide this broad capability. This actually ensures a more accurate way of gathering data which allows to draw more accurate conclusions and make important decisions. Moreover, surveys are relatively inexpensive. In fact, online and mobile surveys, in particular, are rather cheap and have a very small cost per respondent. Paper surveys are a bit more expensive comparing to online surveys. The extra cost comes from printing and handing in the questionnaires to respondents. Further, surveys are dependable. The anonymity of surveys allows respondents to share more candid and valid answers. Of course, it is important to ensure respondents that survey answers will remain completely confidential. This will contribute to get answers as open and honest as possible. Finally, it is worth mentioning that surveys are a flexible research strategy, especially in the case of remote or hard-to-reach respondents. In this case, it is possible and necessary to use a mixed mode of survey research to collect responses and compile survey results (Floyd, 2013).

### **2.2.3. The survey design**

For data collection, two surveys using two self-administered questionnaires have been applied (appendixes 1 and 2). The first questionnaire was used to collect data for the first empirical study, while the second one was adopted for data collection for both the second and the third empirical studies. The guidelines for designing a survey method of Creswell (2009) have been followed. Questionnaire as a data collection tool is economic in design, has a rapid turnaround in data collection, and allows to identify attributes of a large population from a small group of individuals (Babbie, 1990; Groves et al., 2005). The questionnaires have been produced in English first, then translated to Portuguese. Two

translations by two different researchers have been produced first, then both versions were compared to generate an improved third version. During the translation procedure, the authors made sure that the questionnaires were user-friendly and valid. To maintain the content equivalence between the original and translated instruments, first, the questionnaires were reviewed by reviewers and researchers from the field who have experience with this kind of issues, and second, the questionnaires have been pre-tested (Douglas & Craig, 2007). Finally, translation and validation techniques from several studies have been considered as well (Brislin, 1970, 1986; Cha, Kim, & Erlen, 2007).

#### *2.2.3.1: Scales:*

As mentioned above, in order to conduct the three studies, two surveys of mall shoppers were implemented. Existing scales were adapted to measure all of the studied construct. We conducted an exhaustive search for measurement instruments in prior studies. Although similar, different scales have been used to measure the studied constructs in the literature; e.g. shopper satisfaction (Im & Ha, 2011; Kwon, Ha, & Im, 2016; Reynolds & Beatty, 1999b; Teller, 2008; Vega-Vázquez et al., 2017). The reason behind this diversity of scales could be the purpose of the study or the perspective of the author. However, we have done our best to select scales which have been well-validated and match the purpose of our thesis. More information about the used scales is given in each study. Moreover, the scales have been modified sometimes to suit the studied population, and the nature and type of the studied shopping malls, or to give more accuracy when measuring a specific factor. For instance, the used scales to measure entertainment types in the second study have been modified taking into consideration the proposed classification of entertainment to PENT and TENT. Table 6 shows the scales used to measure each factor in the three studies.

#### *2.2.3.2: Pretest:*

Each of the questionnaires of the thesis was reviewed by two researchers in the field of consumer behavior. The purpose of this was to confirm that the translation was accurate and produced no comprehension issues, confusing points, or uncomfortable questions. Both pretests were conducted in an open-end format, in which the subjects could raise questions about the items at any time.

**Table 6.** Scales used in empirical studies

Factor	Study	Scale	Scale Type	No. of items
Social interaction with salespeople	#1	(Chang et al., 2011; Sit et al., 2003; Teller, 2008)	Five-point Likert scale	5
Entertainment		(El Hedhli et al., 2013)		5
PENT	#2	(El Hedhli et al., 2013; Sit et al., 2003)	Five-point Likert scale	3
TENT				4
Flooring & carpeting	#3	(Ainsworth & Foster, 2017; Wakefield & Baker, 1998)	Five-point Likert scale	2
Color schemes				3
Lighting				3
Music				3
Scent				2
Temperature				2
Cleanliness				2
Physical characteristics				4
Pleasure	#1, #2, & #3	(Mehrabian & Russell, 1974)	Five-point semantic differential scale	6
Arousal				5
Dominance				5
Shopper satisfaction	#1, #2, & #3	(Kwon et al., 2016; Teller, 2008)	Five-point Likert scale	4
Desire to stay at the mall	#2, & #3	(Wakefield & Baker, 1998)	Five-point Likert scale	2

Worth mentioning, that each of the two questionnaires, first, introduced readers to the main purpose of our research and has included information about respondents' main shopping destination, and the demographics of gender, marital status, age, and education level.

Thus, all participating volunteers were familiar with the studied shopping malls and their entertainment activities and facilities. Moreover, we made sure that some participants were parents and knew the kids-related entertainment in the studied malls. Results and conclusion of both pretests are presented in Table 7.

**Table 7.** Pre-test results

Pretest	Questionnaire 1	Questionnaire 2
Studies	Study 1	Study 2 & 3
Number of participating volunteers	9	11
Results of pretest	<ul style="list-style-type: none"> <li>- One item from the Arousal scale (Jittery-Dull) was deleted</li> <li>- The wording of a few items was slightly revised</li> </ul>	<ul style="list-style-type: none"> <li>- The wording of a few items was slightly revised</li> </ul>

#### *2.2.3.3: Research population and sample:*

The unit of analysis of the three empirical studies was the mall shopper. The three studies' population were the shoppers of four shopping malls in the North of Portugal. More specifically, two malls in Braga (Braga Parque and Nova Arcada), and two in Guimarães (Guimarães Shopping and Espaço Guimarães). These malls are recognized as local top shopping destinations, and they offer a range of similar shops and entertainment venues. Furthermore, the four investigated shopping malls are in line with the shopping center definition of Associação Portuguesa de Centros Comerciais / Portuguese Council of Shopping Centers (APCC) (de Mattos et al., 2014). Moreover, research in this area follows this approach of choosing specific shopping areas for data collection (e.g., Chebat, Haj-Salem, & Oliveira, 2014; Keng, Huang, Zheng, & Hsu, 2007).

The three surveys have been conducted following a snowball sampling technique. Snowball sampling is also known as cold-calling, chain sampling, chain-referral sampling, and referral sampling and is a well-known method of collecting data, and a well-recognized in consumer behavior literature (Afonso Vieira & Vaz Torres, 2014; Duarte et al., 2018; Gordon, Moodie, Eadie, & Hastings, 2010; Homburg et al., 2017; Lucia-Palacios, Pérez-López, & Polo-Redondo, 2016; Lunardo & Mbengue, 2013; Mumel & Prodnik, 2005; Ozer & Gultekin, 2015). One of the reasons to implement snowball sampling is that we could not get any collaboration from the studied shopping mall management. We have tried to contact them via email and social media platforms, but we got only negative, or no responses to help us in distributing the questionnaires. However, to collect the needed data we followed two steps. First, we identified potential subjects in the population using our own primary network, we have tried our best to have people from different demographic segments. Second, and at the end of the questionnaire, participants were requested to forward it to others who might be interested in taking part in the study. Worth mentioning, the online questionnaires were designed using Google Forms, and in a way that allows the respondents to submit their answers only if completely valid. This has been done by activating the option of allowing only one answer for each question, and the questionnaire could be submitted only if the respondent had answered all the questions. Finally, data collection of the first study took place between March and May 2017, while data collection of second and third studies was between February and August 2018.

## 2.2.4. Data analysis

### 2.2.4.1: Sample characteristics

The final sample size in the first study was 318, while the final sample size for the second and third studies was 484. Table 8 shows the sample demographics for the samples of the three studies.

**Table 8.** Sample demographics

Demographics	Study 1		Study 2 & 3	
	Frequency	Percentage	Frequency	Percentage
Sample size	318	100%	484	100%

Demographics	Study 1		Study 2 & 3	
	Frequency	Percentage	Frequency	Percentage
<b>Gender</b>				
Male	131	41.2%	202	41.7%
Female	187	58.8%	282	58.3%
<b>Marital status</b>				
Single, never married	121	38.1%	191	39.5%
Married (Or: domestic partnership)	157	49.4%	214	44.2%
Widowed	7	2.2%	13	2.7%
Divorced	9	2.8%	25	5.2%
Separated	24	7.5%	41	8.5%
<b>Age</b>				
Under 21	19	6.0%	51	10.5%
21-30 Years	106	33.3%	127	26.2%
31-40 Years	98	30.8%	138	28.5%
41-50 Years	61	19.2%	107	22.1%
Above 50	34	10.7%	61	12.6%
<b>Education</b>				
No high school	14	4.4%	41	8.5%
High school	25	7.9%	77	15.9%
Attend some college	50	15.7%	72	14.9%
Some college graduate	157	49.4%	178	36.8%
Post graduate	72	22.6%	116	24.0%

**Source:** By the authors.

#### *2.2.4.2: Assessment of the measurement model*

In the three studies, a reliability analysis was carried out on each construct to test the internal consistency, moreover, composite reliability was checked as well to assess the internal reliability of each scale. Finally, the Average Variance Extracted (AVE) was

implemented to test the convergent validity. It is worth mentioning that cut-off values for reliability analysis, composite reliability, and AVE analyses have been adopted from Hair, Black, Babin, and Anderson (2009), and Fornell and Larcker (1981). Furthermore, to assess the measurement model for the three studies, first, CFA using AMOS was applied. The cut-off values recommended by Schreiber, Nora, Stage, Barlow, and Jamoe (2006) have been followed. Table 9 demonstrates the cut-off values used in our studies.

**Table 9.** Cutoff criteria for several fit indexes

Indexes	Shorthand	The general rule for acceptable fit if data are continuous	Categorical data
<b>Absolute/predictive fit</b>			
Chi-square	$\chi^2$	Ratio of $\chi^2$ to df $\leq 2$ or 3, useful for nested models/model trimming	
<b>Comparative fit</b>			
Incremental fit index	IFI	$\geq .95$ for acceptance	
Tucker–Lewis index	TLI	$\geq .95$ can be $0 > TLI > 1$ for acceptance	0.96
Comparative fit index	CFI	$\geq .95$ for acceptance	0.95
<b>Other</b>			
Root mean square residual	RMR	Smaller, the better; 0 indicates perfect fit	
Standardized RMR	SRMR	$\leq .08$	
Root mean square error of approximation	RMSEA	$< .06$ to $.08$ with confidence interval	$< .06$

**Source:** Schreiber et al. (2006).

In the case of an unacceptable model fit, we implemented a series of purification processes based on theoretical considerations and diagnostic cues. These purification processes include applying the Exploratory Factor Analysis (EFA) which is a statistical technique that is used to reduce data to a smaller set of summary variables and to explore the underlying theoretical structure of the phenomena (Osborne, Costello, & Kellow, 2008).

#### *2.2.4.3: Test of hypotheses and conceptual research models*

Structural Equation Modeling (SEM) is a multivariate statistical analysis technique that is used to analyze structural relationships. This technique is the combination of factor analysis and multiple regression analysis, and it is used to analyze the structural relationship between measured variables and latent constructs. This method was used for this study because it estimates the multiple and interrelated dependence in a single analysis (Byrne, 2016) being a comprehensive means for assessing and modifying conceptual research models. Moreover, it offers great potential for furthering theory development (Anderson & Gerbing, 1988). SEM has been widely used to test research models in the area of retailing and consumer behavior (e.g. Abbas & Goudey, 2015; El Hedhli et al., 2016; Xu-Priour et al., 2017).

Hence, we analyzed collected data, we employed SEM to test the proposed hypotheses that form the research model of each research paper, using AMOS 21. To test the model fit, the same cut-off values recommended by Schreiber, Nora, Stage, Barlow, and Jamoe (2006) have been followed (Table 9). The regression weights derived from implementing SEM have been used to test the hypotheses and determine the significant relationships. Finally, in the case of having an antecedent that influences one of the studied outcomes directly, and indirectly through one mediator or more, the bootstrapping method was employed. The bootstrap procedures allow to generate standard errors and confidence intervals and to estimate the sampling distributions of estimators of direct and indirect effects (Bollen & Stine, 1990). This technique has been used as well to examine the indirect, direct and total effects of research models in similar studies (Adams, Doucé, Janssens, Vanrie, & Petermans, 2014; Nair, 2018; Orth & Crouch, 2014).

### **2.3. Conclusion**

This chapter explains the philosophical and methodological aspects of the current thesis and demonstrates its confirmatory nature (McQuarrie, 2011; Zikmund & Babin, 2006). Moreover, it positions the methodology in the positivism (Hallebone & Priest, 2009; Wahyuni, 2012), and realism paradigms (Hempel, 1965). Further, it also shows how the empirical studies focus on the problem to derive knowledge, solutions, and recommendations by applying the methods of natural sciences and following the

functionalist paradigm (Burrell & Morgan, 1979). The implementation of the previous methodological choices were manifested by applying quantitative techniques to confirm a set of hypotheses and verify the conceptual research model.

This chapter also clarifies the research techniques followed in examining the overall research model. First, by discussing the quantitative nature of the research design and strategy (Creswell, 2009). Second, by debating and providing justifications for the use of two self-administered questionnaires used for data collection. Moreover, the chapter demonstrates several critical points related to the translation of the two questionnaires (Brislin, 1970, 1986; Cha et al., 2007). In addition, the authors discuss the scales followed to measure the studied variables and clarify the reason behind adapting specific scales that suit the nature of the thesis and its objectives. Further, this chapter discusses the techniques followed in conducting a pre-test to confirm the translation and comprehension issues. After that, the population of the study is acknowledged, and the steps of the snowball technique as a followed sampling technique and the reasons behind following this technique are explained. Moreover, the authors demonstrate the period of data collection of this study.

Finally, the chapter discusses the data analysis. First, sample characteristics for the three studies are displayed. Second, the assessment of the measurement model is discussed by explaining the reliability analysis, composite reliability, AVE (Fornell & Larcker, 1981; Hair et al., 2014), and finally CFA tests (Schreiber et al., 2006). The chapter also explains what has been done to modify the research model when having an unacceptable model fit situation (Osborne et al., 2008). Furthermore, the chapter discusses the SEM as a statistical analysis technique has been followed to analyze structural relationships and test the proposed hypotheses (Anderson & Gerbing, 1988; Byrne, 2016). In the end, the chapter explains the bootstrap procedures followed to demonstrate the nature of the relations when an antecedent have both direct and indirect effect on one or more of the outcomes (Bollen & Stine, 1990).

## Chapter 3

### STUDY 1

#### The impact of entertainment and social interaction with salespeople on mall shopper satisfaction: The mediating role of emotional states

##### **Abstract**

**Purpose** – The purpose of this paper is to understand the role played by emotional states in the relationship between entertainment and social interaction with salespeople and shopper satisfaction.

**Design/methodology/approach** – The proposed model was tested using a survey-based study, with a sample size of 318 mall shoppers.

**Findings** – The results indicate that pleasure and dominance are mediators in the relationship between entertainment and social interaction with salespeople and mall shopper satisfaction. Moreover, regarding the direct relations, entertainment directly influences satisfaction, while social interaction does not.

**Practical implications** – The results have practical implications for mall managers and mall developers. Specifically, entertainment can be used to attract shoppers and to enhance their satisfaction with the overall shopping experience. Practical suggestions to this end are offered.

**Originality/value** – This study's contribution is twofold: first, this study adds to research by addressing the gap in research regarding shopper emotional states. Specifically, it addresses the mediating role played by emotional states of shoppers on the impact of entertainment and social interaction in satisfaction. Second, the study concentrates on the role of salespeople by focusing on the social aspects of the interaction.

**Keywords:** Social interaction; Entertainment; Emotional states; PAD scale; Shopper satisfaction; Shopping malls

**Paper type** Research paper

### 3.1. Introduction

The retail landscape and consumer shopping habits have shifted significantly in the past years. Although online shopping has become a major retail phenomenon, understanding what drives in-store shopping remains key. In particular, many customers prefer offline shopping because it provides the experience of look-and-feel and touch-and-feel (Koo & Kim, 2013). There are also several intersections between online and offline shopping, for example, the research online, purchase offline trend referring to consumers deciding what to buy in-store based on internet research (Bell et al., 2014), and omni-channel retailing strategies with services such as “free home delivery of in-store orders”, and “in-store return of online orders” (Kazancoglu & Aydin, 2018, p. 962). Major online retailers, like Amazon, are also opening physical stores (Nadar, 2018). All this contributes to some extent to the blurring of online and offline shopping (Hüseyinoğlu, Galipoğlu, & Kotzab, 2017; Ye, Lau, & Teo, 2018; Yrjölä, Saarijärvi, & Nummela, 2018). Hence, in-store shopping has not lost importance, and understanding the in-store experience remains fundamental in this changing scenario.

Although several studies in consumer research refer to shopping as a passive, uninteresting and uninvolved obligation (Stebbins, 2006), most studies describe shopping as an interesting, involving and emotional experience (McCarville et al., 2013; Triantafyllidou et al., 2017). Shopping is a holistic entertainment experience (Triantafyllidou et al., 2017; Tsai, 2010), and there is a need to understand the effect of entertainment facilities on the emotional states experienced by consumers during retail visits (De Nisco & Napolitano, 2006).

Furthermore, shopping is a social phenomenon (Hsu et al., 2018; Kim et al., 2019; Mehta, 2013). Research evidences the importance of the interaction between shoppers and salespeople; however, how this factor has been treated in research varies widely. In many studies, relationship with shoppers is assessed solely as an item in the service quality factor, along with other service attributes such as parking, information (Jarratt, 1996; Ramamoorthy et al., 2018), safety, facility cleanliness (Cronin et al., 2000), store reputation, store image, flexible return/exchange policies (Seock, 2009) and problem solving (Deb & Lomo-David, 2014). Other studies, however, adopt a narrower perspective of service quality and focus mainly on salespeople characteristics (Ahmad, 2012; Diallo &

Cliquet, 2016; Sit et al., 2003; Vega-Vázquez et al., 2017). In fact, salespeople-related factors have been studied under different labels, including sales talks (Applebaum, 1951), personnel (Bradley & LaFleur, 2016; Mumel & Prodnik, 2005), employees (Mohan et al., 2013), and salespeople (Anselmsson, 2006; De Juan, 2004). However, Reynolds and Beatty (1999b) distinguish between two types of sources for satisfaction with salespeople: social benefits, and functional benefits. Further studies have more focus on the social nature of the relation between customers and salespeople. Eastlick and Feinberg (1999) indicate bargaining, talking with salespeople, and negotiating for a lower price as attributes of customers' interaction with salespeople. Moreover, Pan and Zinkhan (2006) distinguish the relationship between shoppers and salespeople from the service quality factor and label it "friendliness of salespeople". Within this research stream, there is more concentration on the social interaction between customers and salespeople in shopping areas. This study adopts this perspective also and focuses on studying the nature of this social relationship, and on the assumption that many shoppers value social interaction with salespeople in shopping areas. The social experience is an important part of the overall shopping experience (Cachero-Martínez & Vázquez-Casielles, 2017; Terblanche, 2018; Triantafyllidou et al., 2017; Yoon & Eun, 2018). Understanding the nature of interactions between shoppers and salespeople is crucial and may allow using social relations as a pull factor to attract more shoppers.

Moreover, the importance of the emotional side of shoppers and the role of emotions in consumer behavior is increasingly recognized. Yüksel (2007, p. 58) states "[...] satisfaction from shopping is not necessarily derived from acquiring goods". The effects of the shopper emotional states and their influence on consumer behaviour outcomes have been identified (Allard, Babin, & Chebat, 2009; Alnawas & Hemsley-Brown, 2018; Burns & Neisner, 2006; Herter et al., 2014; Jang & Namkung, 2009; Lichtlé & Plichon, 2014; Yüksel, 2007). However, the shopper emotional states appear in the literature as a connection linking different indicators with consumer behavior. Research clearly suggests that the effect of many factors on consumer behavior is mediated by emotions (Alsaggaf & Althonayan, 2018; Eroglu et al., 2003; Gilboa & Rafaeli, 2003; Im & Ha, 2011; Machleit & Mantel, 2001; Varela-Neira et al., 2008). However, studies addressing this mediation are lacking.

Thus, the purpose of this study is to develop and test a model explaining the impact of entertainment and social interaction between shoppers and salespeople on customer satisfaction, with the mediation of the shopper emotional states. As such, we aim at contributing to a better understanding of the overall shopping experience, specifically, the interplay of entertainment, social interaction, and emotions in customer satisfaction. Hence, the contribution of this paper is twofold. First, our study adds to research by addressing the gap regarding shopper emotional states. Specifically, although the impact of entertainment on shopper behavior has been recognized in previous research (Ahmad, 2012; Baker & Haytko, 2000; De Nisco & Napolitano, 2006; Deli-Gray, Matura, & Árvá, 2014; El Hedhli et al., 2013; Sit et al., 2003; Tsai, 2010), and this factor has been considered as an influencer of mood and emotions (Zillmann, 1988), to the authors' best knowledge, there is no research addressing the mediating role played by emotional states of shoppers in the impact of entertainment on buying outcomes. Second, we focus on the social interaction between customers and salespeople in shopping areas by excluding non-social aspects such as general service aspects. We address both the direct and indirect influence of social interaction, by considering the shopper emotional states. In the last two decades, the retail landscape has changed worldwide. Regarding the offline retailing, shopping malls remain top shopping destinations. Warnaby and Medway (2018, p. 281) state "[...] shopping mall, as a marketplace icon, continues to dynamically and iteratively define and refine the ongoing interactions between consumers, the act of consumption, and place and space". Hence, the mall is not only a shopping destination but also a place where entertainment activities and social life are prominent (Calvo-Porrá & Lévy-Mangín, 2018). As such, malls are privileged shopping locations for studying the dynamics of recreational and social interaction factors.

## **3.2. Theoretical background**

### **3.2.1. Entertainment in shopping**

Entertainment is an important component of shopping (Triantafyllidou et al., 2017). Malls, in particular, are increasingly viewed as "a meeting place, community centre, and important entertainment venue, not just a place to purchase goods and services" (Hu & Jasper, 2018, p. 160). Thus, mall developers and management try to increase the entertainment component of malls in order to enhance the mall product (Sadachar & Fiore, 2018). The

impact of entertainment value has been studied in terms of a wide range of consumer behaviour outcomes, such as the number of mall visits (Swinyard, 1998), mall profitability, mall productivity (Christiansen, Comer, Feinberg, & Rinne, 1999), market performance, sales performance (De Nisco & Napolitano, 2006), atmosphere-leisure (Frasquet, Gil, & Molla, 2001), and children's evaluation of the shopping experience (Deli-Gray et al., 2014). Calvo-Porrà and Lévy-Mangin (2018, p. 110) elaborate on the role of shopping malls as recreational, social and leisure centres where consumers seek "pleasurable experiences and stimulation of the senses rather than an intent to purchase something" and found that customers are mainly attracted by the tenant variety and the internal environment of the mall.

Regarding, specifically, satisfaction as an outcome, Ahmad (2012) acknowledges entertainment as one of the main factors that affect shopper satisfaction and loyalty in shopping malls. Also, Sit and Merrilees (2005) document the impact of entertainment on overall satisfaction. Finally, Patel and Sharma (2009) reveal that hedonic satisfaction is derived from many factors including entertainment.

### **3.2.2. Social interaction with salespeople**

The human factor is a critical component in the establishment and advancement of long-term customer relationships (Murley, 1997, p. 339). Jin and Kim (2003) indicate that consumers go shopping for socialization besides diversion, and product acquisition. Further, several studies focus on the social interaction between shoppers and salespeople (Burke, 2002; Koo & Kim, 2013; Rippé et al., 2018; Seock, 2009; Sherman, Mathur, & Smith, 1997; Vega-Vázquez et al., 2017). This social phenomenon is a crucial antecedent of the shopping experience (Arnold, Reynolds, Ponder, & Lueg, 2005; Jones, 1999). In an early contribution, Tauber (1972, p. 48) stated, "[...] shopping can provide the opportunity for a social experience outside the home". Turley and Milliman (2000) indicate that the store's atmosphere influences both the customers and the store's employees, who in turn, through their interactions, influence each other. Moreover, Sit et al. (2003, p. 83) argue that "both personal and communal services are central to the shopping centre image because they represent the 'augmented product' that supports the merchandising (core product) and also add value to the total shopping experience of customers". Pan and Zinkhan (2006, p. 231) point out that "retail stores offer a chance for human interactions"

and find a positive correlation between the friendliness of salespeople and shoppers retail patronage. Pan and Zinkhan (2006) stress that “the desire for human interaction may drive some shoppers to stores in which they find salespeople friendly and communicative” (p. 231). In the same vein, Darian, Wiman, and Tucci (2005) indicate that consumers prefer respectful, friendly, knowledgeable, and responsive salespeople. Lee (2015) discusses how employee’s interaction with the consumer contributes to retail patronage, while Abbes and Goudey (2015) indicate that a trust-based relationship between customers and salespeople can play a role in sustaining the customer-retailer relationship. Further, Reynolds and Arnold (2000) find loyalty to the salesperson influence loyalty to the store, word of mouth, the share of purchases, and competitive resistance. Likewise, several studies show that the quality of the consumer experience has an impact on the shopping attitudes and behavioral outcome; overall service quality influences overall satisfaction (Spreng & Mackoy, 1996). Specifically, salespeople affect satisfaction and patronage intention in shopping malls and shopping streets (Teller, 2008). Finally, Chang et al. (2011) study social characteristics of the retail environment and find that consumers’ pleasant feelings can be further enhanced by positive social interaction with salespeople.

### **3.2.3. Shoppers’ emotional states**

Emotions are relevant factors for understanding shopping behavior. Yüksel (2007, p. 58) states “...satisfaction from shopping is not necessarily derived from acquiring goods,” and contends that the emotional state and shopping value created by the shopping environment can have a great influence on several outcomes of consumer behavior. Several studies find evidence of the impact of emotions on shopping, and many of these studies concentrate on understanding the dichotomous effect of good/bad mood/emotions on consumer behavior (Folkes, Koletsky, & Graham, 1987; Lerner, Small, & Loewenstein, 2004; Nyer, 1997; Raghunathan & Pham, 1999; Varela-Neira et al., 2008; Yi & Baumgartner, 2004). Allard et al. (2009) study the mediating effect of positive and negative emotions between place attachment, perceived differentiation and the general attitude in shopping malls. In the same context, Babin and Darden (1996) find the negative mood to have a greater effect on satisfaction than positive mood. Also, Ozer and Gultekin (2015) indicate that good and bad mood influence impulse buying, while impulse buying does not influence post-purchase mood. In restaurant settings, positive emotions appear to mediate the relationships

between atmospherics/service and behavioral intentions (Jang & Namkung, 2009). Rucker and Petty (2004) study the effect of two negative emotions, anger and sadness, on consumer behavior and find anger attracts consumers to products advertised as active, while sadness makes them prefer products characterized in more apathetic terms. In restaurant settings, positive emotions appear to mediate the relationships between atmospherics/service and behavioral intentions (Jang & Namkung, 2009). Furthermore, Lichtlé and Plichon (2014) study the emotional states of well-being, escapism, nervousness, pleasure, calm and constriction and their effect on consumer behavior. Pleasure and arousal appear in Baker et al.'s (1992) study as mediators between retail atmospheric factors and willingness to buy.

Three main scales to measure emotions have been used in consumer research: Izard (1977), Plutchik (1980), and Mehrabian and Russell (1974). It is worth mentioning that the first two scales have six emotions in common, joy, sadness, anger, disgust, surprise, and fear. Beside these emotions, Izard (1977) scale contains the emotions of interest, guilt, shyness/shame, and contempt. While acceptance and expectancy appear in Plutchik (1980) scale. Using Izard (1977) scale, Westbrook and Oliver (1991) study how the emotional states of the owners of newly purchased cars influence their satisfaction levels. While, Eroglu, Machleit, and Barr (2005) discuss how the emotions of joy, interest, surprise, contempt, disgust, and anger mediate the significant relationship between perceived retail crowding and customer satisfaction. In another study, Machleit and Eroglu (2000) aim to figure out how different emotion scales work when studying shopper behavior. The study compares three scenarios: the three measures of Izard (1977), Plutchik (1980), and Mehrabian and Russell (1974), and finds the first two to have a better performance than Mehrabian and Russell (1974). This result is in conflict with Havlena and Holbrook (1986) who find the Mehrabian and Russell (1974) scale to be the best when investigating consumer emotions. It is worth mentioning that Machleit and Eroglu (2000) indicate two strengths of using Mehrabian and Russell (1974) scale: First, out of the three mentioned measures, it is the only one that includes an arousal component; Second, dominance can be considered as an important dimension when examining consumer behavior in crowding and wait situations.

Donovan and Rossiter (1982) is the first study to apply Mehrabian-Russell scale in retail settings. Findings demonstrate different effects of pleasure, arousal, and dominance;

pleasure shows to be a very strong determinant of approach-avoidance behavior including spending behavior. Arousal, as well, shows to be a significant determinant of time spent in the store and willingness to interact with salespeople. Although, dominance has a slight effect, it does not have a significant influence on in-store behavior. Based on Donovan and Rossiter (1982), pleasure and arousal are examined again using a broader sample of female shoppers (Donovan, Rossiter, Marcoolyn, & Nesdale, 1994). Similar results are obtained regarding pleasure where this emotion proves to influence time spent in the store, and spending more money than intended. However, arousal demonstrates different results in this study, and this emotion shows less impact on consumer behavior. The authors impute the different results to the different retailing formats used in the two studies. However, the PAD scale have been implemented widely in consumer behavior research (Baker et al., 1992; Chebat & Michon, 2003; Dawson, Bloch, & Ridgway, 1990; Eroglu et al., 2003; Fiore & Kim, 2007; Im & Ha, 2011; Machleit & Mantel, 2001; Menon & Kahn, 2002; Varela-Neira et al., 2008; Yüksel, 2007), mainly when investigating the mediating role of emotions between different antecedents and behavioral responses. Some studies use all three dimensions of PAD scale, while other studies exclude dominance, and focus only on understanding the impact of pleasure and arousal. Table 10 lists studies investigating the mediating role of emotions using PAD scale, including the studied emotions, the outcomes of the study, and the emotions that prove to have a significant effect on the studied outcomes.

Finally, a good number of studies consider the mediating effect of emotions on the relationship between several indicators, and specifically, customer satisfaction; Dawson, Bloch, and Ridgway (1990) find that the emotions of pleasure and arousal play a mediating role between shopping motives and customer satisfaction. Also, Im and Ha (2011) examine the role played by pleasure, arousal and dominance in mediating the relationship between the ambient and several factors and satisfaction. Machleit and Mantel (2001) find that both emotions of gratitude and anger, as mediators, influence shopper satisfaction. Furthermore, emotions like joy, interest, surprise, contempt, disgust, and anger mediate the significant relationship between perceived retail crowding and customer satisfaction (Eroglu et al., 2005). Additionally, Burns and Neisner (2006) find that satisfaction in a retail setting is explained by emotional reaction along with cognitive evaluation.

**Table 10.** Articles using PAD scale in consumer behavior

Article	Emotions studied	Outcomes studied	Emotions with significant effect
Donovan and Rossiter (1982)	P – A – D	Approach-avoidance behavior in store environment	P – A
Havlena and Holbrook (1986)	P – A – D	The emotional character of consumption experiences	P – A – D
Dawson et al. (1990)	P – A	Product satisfaction and facility satisfaction	P – A
Baker et al. (1992)	P – A	Willingness to buy	P – A
Donovan et al. (1994)	P – A	Approach-avoidance behavior in store environment	P
Menon and Kahn (2002)	P – A	Approach behaviors (e.g., more exploration, more tendencies to examine novel products and stores, higher response to promotional incentives)	P – A
Eroglu et al. (2003)	P – A – D	Attitude, satisfaction, and approach/avoidance	P – A (Partly)
Chebat and Michon (2003)	P – A	Shoppers' spending	P (Partly) – A (Partly)
Fiore and Kim (2007)	P – A – D	Consumer behaviors (purchase intention and store patronage)	Theoretical discussion
Im and Ha (2011)	P – A – D	Satisfaction	P
Lin and Worthley (2012)	P – A	Satisfaction	P

Likewise, Varela-Neira et al. (2008) contend that emotions have an indirect effect on overall, or cumulative satisfaction, through cognitive evaluations. Therefore, the following hypotheses are proposed:

*H1.* Entertainment is positively related to shopper emotional states.

*H2.* Social interaction with salespeople is positively related to shopper emotional states.

### **3.2.4. Customer satisfaction**

Research in retail uses different shopping outcomes, including loyalty (Ahmad, 2012; Kim, Lee, & Suh, 2015; Koo & Kim, 2013; Pandey, Khare, & Bhardwaj, 2015; Shafiee & Es-Haghi, 2017; Sharifi & Esfidani, 2014; Yu & Tseng, 2016), purchase intention (Alavi, Rezaei, Valaei, & Ismail, 2016; El-Adly & Eid, 2016; Liao, Lin, Meiling, & Chea, 2017; Sahi, Sekhon, & Quareshi, 2016), retail patronage (Burlison & Oe, 2018; Kan, Cliquet, & Gallo, 2014; Nair, 2018; Seock, 2009), and customer satisfaction, which appears strongly in prior research (Alavi et al., 2016; Babin & Darden, 1996; Dawson et al., 1990; Eroglu et al., 2005; Im & Ha, 2011; Kim et al., 2015; Machleit & Mantel, 2001; Spreng & Mackoy, 1996; Vega-Vázquez et al., 2017).

In this study, we focus on customer satisfaction for several reasons. First, satisfaction is a key construct to evaluate product/service performance (Kwon et al., 2016). Also, satisfaction can be easily measured, even if the shopper is in the mall for entertainment or window shopping, and not planning to purchase. Moreover, satisfaction has been found to influence loyalty (Alavi et al., 2016; El-Adly & Eid, 2016; Platania, Platania, & Santisi, 2016), and purchase intentions, the most critical outcome in retailing context (Alavi et al., 2016; Ali, 2016; Chan, Cheung, & Lee, 2017; Hsu & Lin, 2015; Khan, Liang, & Shahzad, 2015; Liao et al., 2017). Although the effect of entertainment on consumer behavior is well studied, a limited number of studies focus specifically on this effect on customer satisfaction (Ahmad, 2012). Hence, there is a need to reassess this relationship. It is reasonable to assume that the positive impact of entertainment on purchase outcomes found in other studies can also be found in shopper satisfaction. Hence, the following is proposed:

*H3.* Entertainment is positively related to shopper satisfaction.

Moreover, several studies examine how salespeople influence shopper satisfaction (Agnihotri, Gabler, Itani, Jaramillo, & Krush, 2017; Anselmsson, 2006; Pan & Zinkhan, 2006; Teller, 2008; Wang, Hoegg, & Dahl, 2018), yet, as previously mentioned, how this factor has been treated in research varies widely. In general, these studies treat this factor from a general perspective. Thus, there is a need to examine the relationship between salespeople and shopper satisfaction, focusing on the social relationship between shoppers and salespeople. Hence, the following is proposed:

*H4. Social interaction with salespeople is positively related to shopper satisfaction.*

Furthermore, as seen in the previous section, several studies focus on the impact of emotional and hedonic aspects on customer satisfaction (Eroglu et al., 2003, 2005; Im & Ha, 2011; Machleit & Mantel, 2001; Varela-Neira et al., 2008). Moreover, Chebat, Michon, Haj-Salem, and Oliveira (2014) explain that retail literature shows satisfaction to be more likely influenced by non-product-related factors and hedonic aspects than traditional utilitarian orientations. Furthermore, people derive life satisfaction from experiential purchases compared to material purchases (El Hedhli et al., 2016). Although several papers test the effect of shopper emotional states on consumer behavior in general, results are not always consistent, in particular, studies applying the Pleasure–Arousal–Dominance scale (PAD) to capture emotional states indicate different results. Thus, the following is proposed:

*H5. Emotional states are positively related to shopper satisfaction.*

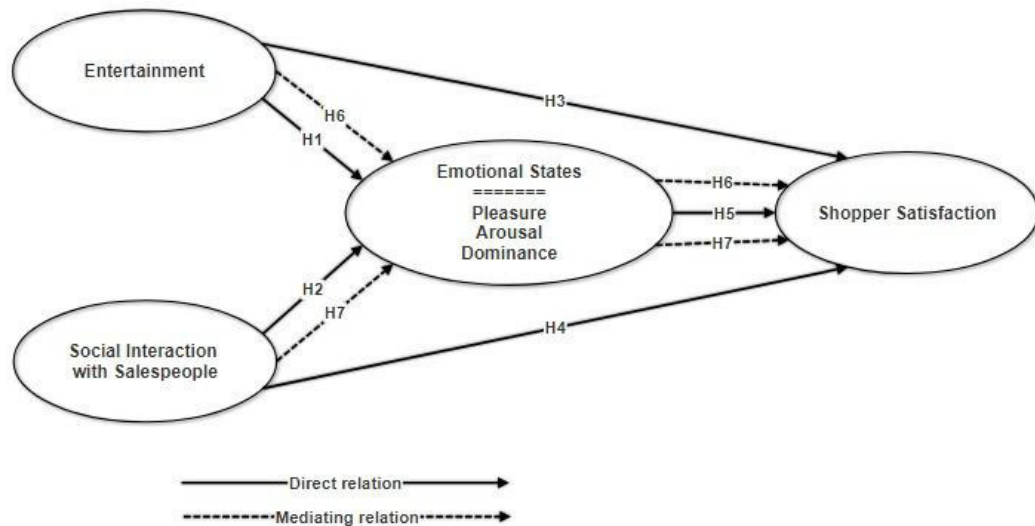
As mentioned before, emotions also have an impact on satisfaction; positive and negative moods affect patronage satisfaction (Babin & Darden, 1996). Machleit and Mantel (2001) find that satisfaction can be affected by emotions. Emotions play an integral part in influencing consumer satisfaction and behavioral intentions (White & Yu, 2005). Several studies focus on studying the effects of pleasure, arousal and dominance on satisfaction (Eroglu et al., 2003; Im & Ha, 2011; Machleit & Eroglu, 2000). Consequently, studying the sources of the positive and negative emotional states which influence shopper behavior outcomes is important. As mentioned, De Nisco and Napolitano (2006) find that entertainment-oriented shopping centers obtain higher levels of customer satisfaction. Hence, the following is proposed:

*H6.* Emotional states mediate the relationship between entertainment and shopper satisfaction.

Finally, a positive correlation between salespeople and customer satisfaction has been found (Ahmad, 2012; Anselmsson, 2006; Teller, 2008). Therefore, social interaction with salespeople is a factor that might impact shopper satisfaction through emotional states. Thus, the following is proposed:

*H7.* Emotional states mediate the relationship between social interaction with salespeople and shopper satisfaction.

The proposed hypotheses can be summed up by the research model (Figure 4).



**Figure 4.** Research model of study 1

### 3.3. Method

#### 3.3.1. Data collection

In order to test the proposed model, an online survey was conducted. Using a snowball sampling technique, shoppers of four shopping malls with similar entertainment facilities in the North of Portugal were invited to participate in the survey via e-mail. Before answering the questionnaire, participants were given a brief introduction to the study and were assured that their responses were anonymous; they were then asked to indicate the name of the shopping mall they usually visit, and to answer the questionnaire based on their shopping experience with that mall. Data collection took place between March and May 2017. Data were analyzed using AMOS 21.

Existing scales in the relevant literature were adapted to measure the independent factors: entertainment (five items) from El Hedhli et al. (2013); and social interaction with salespeople (five items) from Chang et al. (2011), Sit et al. (2003) and Teller (2008). As noted, the social interaction in our study refers to the social relation between shoppers and salespeople and addresses the salesperson's helpfulness, friendliness, courteousness and to what extent he/she gives customers personal attention. Therefore, modifications to the scales were necessary given the purpose of our study, as we only used the items that reflect social situations, specifically, we did not include prompt service, product knowledge, and neat uniform.

In what concerns emotions, the study uses the PAD scale of Mehrabian and Russell (1974); composed of pleasure (six items), arousal (five items) and dominance (five items). This scale is "[...] the premier measure in the field of environmental psychology for assessing individuals' emotional responses to their environment" (Machleit & Eroglu, 2000, p. 102), and has been widely employed for evaluating emotions in consumer research contexts (Babin & Darden, 1995; Im & Ha, 2011; Sherman et al., 1997).

Finally, four items to measure satisfaction were adopted from existing literature (Kwon et al., 2016; Teller, 2008). Entertainment, social interaction with salespeople, and satisfaction were measured on a five-point Likert scale (1=strongly disagree; 5=strongly agree), and emotional states were measured on a five-point semantic differential scale (e.g. unaroused–aroused). All the mentioned items demonstrated appropriate reliability in measuring respective constructs in previous studies.

The questionnaire was reviewed by two consumer behavior researchers before being pretested to confirm that the questionnaire had no comprehension issues, confusing points or uncomfortable questions. The pretest was conducted with nine volunteers in an open-end format, in which the subjects could raise questions about the items at any time. The participating volunteers were familiar with the studied shopping malls and their entertainment activities and facilities. Moreover, two participants were parents and knew the kids-related entertainment in these malls. One item from the Arousal scale, Jittery-Dull, was excluded as the majority of the volunteers indicated that they could not rate their feelings based on this item; this is similar to the approach of other studies (Babin & Darden, 1995; Im & Ha, 2011). The wording of a few items was slightly revised following

suggestions from the pretest subjects. However, overall, pretest subjects indicated a clear understanding of the survey items.

### **3.4. Results**

The final sample size was 318. Sample demographics show that 58.8 percent are female participants, 49.4 percent are married or in a domestic partnership and 39.3 percent of the participants are under 31 years of age. Finally, the sample can be considered a well-educated sample, since 49.4 percent have some kind of college degree and 22.6 percent have post-graduate education.

To test the model, we used structural equation modeling (SEM) as multiple indicators of latent variable constructs were used. Essential features of SEM include the potential to explicitly distinguish between observed and latent variables, and the capacity to analyze covariance or means in experimental or nonexperimental designs (Kline, 2015). First, the measures were refined using a number of analyses, and the model fit was tested by confirmatory factor analysis (CFA). Then, the structural model of path analysis was examined.

#### **3.4.1. Assessment of the measurement model**

As a CFA of the original items indicated an unacceptable model fit, a series of purification processes were operated based on theoretical considerations and diagnostic cues. As a result, seven indicators were removed in total: one for social interaction, three for pleasure, two for dominance and one for satisfaction. These purification processes lead to an acceptable model fit:  $\chi^2=314.313$ ,  $df=176$ ,  $\chi^2/df=1.786$ , CFI=0.950, TLI=0.941, IFI=0.951, RMR=0.038, SRMR=0.0450, RMSEA=0.050 [90% CI=0.041; 0.059]. A reliability analysis was carried out on the remaining 21 indicators. All items proved to be worthy of retention, resulting in a decrease in the  $\alpha$  if deleted; however, we did not consider the very slight difference in the case of EN2 (Table 11). Cronbach's  $\alpha$  varying from 0.654 to 0.837 and composite reliability scores ranging from 0.763 to 0.859 provide evidence for the internal reliability of each scale. Convergent validity is also confirmed by the average variance extracted (AVE) of each latent construct exceeding the minimum cut-off of 0.5 (Fornell & Larcker, 1981) (Table 11).

**Table 11.** Item loading, Cronbach's  $\alpha$  values, AVE, and composite reliability (Study 1)

Factor	Item Loading	Cronbach's $\alpha$	AVE	Composite Reliability
<b>Entertainment</b>		0.822	0.61	0.859
EN1: There are plenty of entertainment facilities at this mall	0.82			
EN2: This mall has many entertainment programs for children	0.70			
EN3: This mall has many entertainment programs for adults	0.79			
EN4: I think this mall is great when it comes to entertainment	0.79			
<b>Social Interaction with Salespeople</b>		0.796	0.57	0.843
SO1: The salespeople in this mall are helpful	0.77			
SO2: The salespeople in this mall are friendly	0.81			
SO3: The salespeople in this mall are courteous	0.72			
SO4: The salespeople in this mall give customers a personal attention	0.73			
<b>Pleasure</b>		0.791	0.52	0.763
PL1: Annoying - Pleasing	0.80			
PL2: Unhappy - Happy	0.69			
PL3: Unsatisfied - Satisfied	0.66			
<b>Arousal</b>		0.836	0.54	0.821
AR1: Calm - Excited	0.71			
AR2: Relaxed - Stimulated	0.80			
AR3: Unaroused - Aroused	0.77			
AR4: Sluggish - Frenzied	0.65			
<b>Dominance</b>		0.654	0.56	0.793
DN1: Care-for - In-Control	0.70			
DN3: Guided - Autonomous	0.77			

Factor	Item Loading	Cronbach's $\alpha$	AVE	Composite Reliability
DN4: Submissive - Dominant	0.77			
<b>Shopper Satisfaction</b>		0.837	0.56	0.789
SS1: I am satisfied with my decision to visit this shopping mall	0.70			
SS2: My choice to visit this shopping mall is a wise one	0.73			
SS4: I am sure it is the right thing to visit this shopping mall	0.80			

### 3.4.2. Assessment of the structural model

The model fit indicators demonstrate an acceptable model fit:  $\chi^2=314.313$ ,  $df=176$ ,  $\chi^2/df= 1.786$ , CFI=0.950, TLI=0.941, IFI=0.951, RMR=0.038, SRMR= 0.0450, RMSEA=0.050 [90% CI=0.041; 0.059]. Comparing with the cut-off values recommended by Schreiber et al. (2006), our values indicate a good fit between the model and the observed data.

Subsequently, we tested our proposed hypotheses through the structural model. The results support H1; therefore, entertainment positively affects all the emotional states. H2 is partially supported, as social interaction with salespeople has a significant effect only on pleasure and dominance but not on arousal. H3 is also supported, meaning that there is a direct positive effect of entertainment on shopper satisfaction. However, there is no significant effect of social interaction with salespeople on shopper satisfaction, hence, H4 is not supported. H5 is also partially supported, as pleasure and dominance significantly influence satisfaction, while arousal does not.

Regarding the last two hypotheses, H6 and H7, these mediating relationships were evaluated summing two relations; the path between the independent factor and each emotional states dimension, and the path between each of these dimensions and the shopper satisfaction. Results partially support both hypotheses, as pleasure and dominance mediate the relationship between entertainment and satisfaction, and are a full mediator of the relationship between social interaction with salespeople and satisfaction (Table 12).

**Table 12.** Regression weights (Study 1)

	Estimate	S.E.	C.R.	P
Entertainment → Pleasure	0.188	0.05	3.726	**
Entertainment → Arousal	0.292	0.05	5.825	**
Entertainment → Dominance	0.156	0.05	3.118	**
Social Interaction with Salespeople → Pleasure	0.545	0.087	6.284	**
Social Interaction with Salespeople → Arousal	0.106	0.081	1.313	0.189
Social Interaction with Salespeople → Dominance	0.194	0.073	2.665	**
Pleasure → Shopper Satisfaction	0.697	0.115	6.062	**
Arousal → Shopper Satisfaction	0.072	0.099	0.726	0.468
Dominance → Shopper Satisfaction	0.209	0.089	2.355	*
Entertainment → Shopper Satisfaction	0.125	0.059	2.128	*
Social Interaction with Salespeople → Shopper Satisfaction	0.031	0.086	0.357	0.721

\* P-Value < 0.05, \*\* P-Value <0.01

Moreover, the bootstrapping method was employed to examine the indirect, direct and total effects of our model. Table 13 summarizes the results of the decomposition analysis for predictor effects on shopper satisfaction. Specifically, the total effect of entertainment and social interaction with salespeople on satisfaction is mediated by the shopper's emotional states. Entertainment has a significant direct effect on shopper satisfaction, but social interaction has a stronger indirect impact on satisfaction.

### 3.5. Discussion and conclusion

Relationships between entertainment, social interaction with salespeople and shopper satisfaction in shopping malls were investigated, with consideration of the mediating role

**Table 13.** Direct, indirect and total effects (Study 1)

	Social Interaction with Salespeople			Entertainment			Dominance			Pleasure		
Predictor variables	Indirect Effect	Direct Effect	Total Effect	Indirect Effect	Direct Effect	Total Effect	Indirect Effect	Direct Effect	Total Effect	Indirect Effect	Direct Effect	Total Effect
Dominance	-	0.214	0.214	-	0.234**	0.234**	-	-	-	-	-	-
Pleasure	-	0.498**	0.498**	-	0.237**	0.237**	-	-	-	-	-	-
Satisfaction	0.370**	-	0.370**	0.200***	0.159	0.359**	-	0.180**	0.180**	-	0.666**	0.666**

Notes: Standardized path estimates are reported. \*\* P-Value < 0.01.

of the shopper's emotional states represented by PAD scale components. Our results support or partly support six out of seven hypotheses.

In what concerns the direct impact hypotheses, H1–H5, results provide empirical support for the direct effect of entertainment on shopper satisfaction. These findings are in line with previous studies highlighting the importance of entertainment value and its impact on consumer behaviour and shopping mall results (Ahmad, 2012; Christiansen et al., 1999; De Nisco & Napolitano, 2006; El-Adly, 2007; Haynes & Talpade, 1996; Sit et al., 2003; Swinyard, 1998; Wakefield & Baker, 1998). However, we did not find support for the direct impact of social interaction with salespeople on satisfaction. Although prior research suggested that human warmth and sociability factors were important for shoppers (Chang et al., 2011), our results did not support this hypothesis. Our findings differ from previous research that reported the direct effect of salespeople on shopper satisfaction (Anselmsson, 2006; Pan & Zinkhan, 2006), but are partly in line with Teller (2008), who found similar results regarding super-regional malls and regional character shopping streets. These findings may be due to the fact that some of the prior studies had not looked specifically at social interaction with sales people but at more general questions related to personnel and/or service (Anselmsson, 2006; Mohan et al., 2013; Spreng & Mackoy, 1996; Teller, 2008). These results may, also, be due to the fact that not all shoppers look for human contact in stores. For instance, Jarratt (1996) identified six shopper categories, and two of these, “have to” and “product focused” shoppers, view service as of low importance.

In a similar vein, the six shopper categories identified by Sit et al. (2003) indicate that service is of low importance for “entertainment”, “convenience” and “apathetic” shoppers. More studies consider shopper categories (Harris et al., 2017; Mehta, Sharma, & Swami, 2014; Wiese, Zielke, & Toporowski, 2015). Furthermore, consumers with higher hedonic motives are more likely to be affected by the social aspect of the retail environment than those with lower hedonic motives (Chang et al., 2011).

In terms of the mediating impact, H6 and H7, results support the mediating role of pleasure and dominance between the studied independent and dependent variables, but not of arousal. Concerning pleasure, the findings of this study are consistent with Im and Ha (2011) who find pleasure to be a mediator between ambient and variety on the one hand, and satisfaction on the other. Although it is not a perfect mediator, Baker et al. (1992) point

out that pleasure mediates the relationship between store environment, represented by ambient and social cues, and the willingness to buy. Also, our findings are consistent with Yüksel (2007) who indicates the mediating role of pleasure between the environment and hedonic value, utilitarian value and approach. Moreover, Dawson et al. (1990) find that pleasure mediates the relationship between shopping motives, and retail choice and retail preference. Regarding the mediating role of arousal, our findings differ from the last three mentioned studies (Baker et al., 1992; Dawson et al., 1990; Yüksel, 2007), but are in line with Im and Ha (2011) who do not find a mediating role for arousal. On the other hand, the mediating role of dominance is supported in our study, while Im and Ha (2011) find that atmospheric cues do not directly evoke feelings of dominance but predict satisfaction with the mall experience. Furthermore, Gilboa and Rafaeli (2003) find pleasure and arousal to be mediators in the relationship between store environment and approach behavior, while dominance suppresses the relationship between store environment and pleasure. However, dominance has not been studied extensively in shopping contexts, several studies do not include dominance in their models (Alsaggaf & Althonayan, 2018; Eroglu et al., 2003; Yüksel, 2007). The positive results concerning dominance in this study encourage further research for a deeper understanding of the affective states of consumers.

### **3.5.1. Theoretical contributions**

This study contributes to the retail literature in two major areas. First, it adds to research about the entertainment impact on shopper satisfaction, by investigating the presence of shopper emotional states as mediators. Results support previous findings (Ahmad, 2012; De Nisco & Napolitano, 2006) documenting the positive effect of entertainment on shopper satisfaction in shopping malls. Entertainment is included in this study by examining how shoppers evaluate entertainment facilities and programs for children and adults, and what they think about entertainment in the studied shopping malls. Also, results indicate the importance of entertainment when considering the presence of the shoppers' emotional states as a mediator.

Second, despite much research documenting the effect of the human factor represented by salespeople in shopping areas, this study addresses the existing gap regarding studies focusing on the social attributes of this factor. Our results do not support the direct effect of this factor on satisfaction and, therefore, are not consistent with previous research that

reported the direct effect of salespeople on shopper satisfaction (Anselmsson, 2006; Pan & Zinkhan, 2006; Teller, 2008). However, it is worth noting that the results of this study support the effect of social interaction with salespeople when considering the mediating role of pleasure and dominance. These findings are consistent with similar studies using the PAD scale as a mediator. Sherman et al. (1997) reported that social factors have a positive impact on pleasure, while there is no positive impact on arousal. Im and Ha (2011) reported significant paths between pleasure and satisfaction; dominance and satisfaction; and an insignificant path between arousal and satisfaction. Our findings match those results and add a new significant path between social interaction with salespeople and satisfaction through dominance.

Furthermore, our research contributes to studies using the Stimulus–Organism–Response model, explaining the relation between stimulus and response through organisms represented by consumer emotional responses (Alsaggaf & Althonayan, 2018; Baker, Meyer, & Chebat, 2013; Chang et al., 2011; Jang & Namkung, 2009; Koo & Kim, 2013). This study fills a gap in research by showing that pleasure and dominance mediate the relationship between entertainment and social interaction with salespeople on the one side and shopper satisfaction on the other, helping to explain how entertainment and social interaction can affect shoppers' mood which can affect satisfaction.

### **3.5.2. Practical contributions**

First, this study highlights the importance of entertainment and its effect on shopper emotional status and satisfaction. Given the increase in competition between shopping areas, it emphasizes the importance of entertainment as part of the shopping mall's marketing mix and as a competition tool. It can be used in addition to products, services and atmospherics to attract shoppers and enhance their satisfaction with the shopping experience and, eventually, increase their purchasing intentions. High levels of satisfaction lead to more frequent purchases, and positive feedback about the purchased products (El-Adly & Eid, 2016; Kuo, Wu, & Deng, 2009). Moreover, Lee, Lee, and Yoo (2000) indicate that the way to purchase intention passes through customer satisfaction. We offer some suggestions that mall managers can use to benefit more from entertainment. First, when providing new entertainment activities, it can be useful to get inspiration from successful shopping mall experiences. Second, using the malls' empty spaces for seasonal

entertainment activities that suit different shopper segments and are in line with city events will encourage shoppers to associate shopping malls with these events and seasons and view the mall as an entertainment venue, not only a shopping area. Third, providing a set of entertainment areas and activities geared towards different family members will help them enjoy the time while waiting, thus positively affecting their feelings towards the malls. Fourth, promoting entertainment activities results in leveraging the benefits from entertainment.

Second, the study also contributes to understanding the role of social interaction with salespeople which affects satisfaction only through the mediation of pleasure and dominance emotions. The social aspect is very sensitive as shoppers vary greatly in terms of personalities and preferences; some people like to interact more with others, while other people really do not appreciate interferences and conversations when they are shopping. Thus, the following recommendations are suggested. First, more attention should be given to social skills of salespeople; training courses and workable instructions about social aspects and how to socially deal with shoppers can be very useful to improve social interaction and hence increasing the shopper's positive mood and satisfaction. Training salespeople to identify the situations when customers do not want to socially interact with them and avoiding intrusive social interactions that might negatively influence satisfaction and buying intentions in these cases are needed. Salespeople can be taught to interpret body language and how to manage the relations with customers in an effective way ensuring positive emotions and behavioral responses. Second, understanding the culture of mall shoppers, benefiting from culture studies in the geographical area served by the managed malls, provides useful guidelines to understand more of shoppers' social characteristics and thus be able to follow appropriate methods to help them. Third, it is important to collect and respond to shopper suggestions and complaints, either made directly in shopping malls or posted, indirectly, on social media and shopping mall websites. Reviewing and acting upon remarks and feedback related to social interaction aspects may provide useful information to improve plans and training.

Although this study has been done in the context of shopping malls, the results suggest useful implications for other offline shopping destinations. While there are some limits for shopping streets and other uncovered shopping areas to offer the same range of entertainment as in malls, these shopping areas can still provide adequate entertainment

activities that lead to positive behavioral responses. The managerial implications related to social interaction with salespeople can be applied to other offline shopping areas as well. Finally, some recommendations for online shopping may also be drawn, in particular regarding creating emotional experiences for shoppers that contribute to satisfaction and increase buying intentions. Using social interaction cues online, such as recommendation agents/avatars, can mitigate the lack of personalization and interaction with a salesperson (Etemad-Sajadi, 2016). Furthermore, retailers can enhance the emotions that guarantee a positive shopping experience by focusing on another range of antecedents (Izogo & Jayawardhena, 2018).

### **3.5.3. Limitations and future research**

Despite being large and diversified, our sample is not representative. However, the sample does include shoppers who visit and prefer different types and sizes of shopping malls. As we have discussed, the entertainment and shopping process may be different depending on shopper segments.

Although this study supports the importance of entertainment and social interaction with salespeople as attractiveness factors in the retailing environment, more questions remain. The entertainment factor can be classified, as in the Sit et al. (2003) study, as temporary or occasional entertainment activities like events organized by shopping malls for specific occasions, and permanent entertainment activities, such as cinemas or kids play areas. Each entertainment type can be studied as a separate factor. Regarding social interaction with salespeople, it is clear that there is a need to conduct similar studies in other retail settings, including applying methods such as in-depth interviewing to develop better scales for this factor, which has been mostly studied, so far, as a component of the more comprehensive service quality factor.

Finally, the social side of the study can be enriched by doing cross-cultural studies to compare how the research model works in different cultures.

## Chapter 4

### STUDY 2

#### The Influence of Types of Entertainment on Mall Shoppers' Emotions and Behavior

##### Abstract

**Purpose** – The purpose of this paper is to provide a broader typology and inventory of recreational facilities and activities in shopping malls. The article then investigates the relation between the proposed entertainment types and shopper behavior both directly, and indirectly by considering the mediation of shopper emotional states.

**Design/methodology/approach** – A survey-based study with a sample size of 484 mall shoppers is used to test the proposed model.

**Findings** – The results indicate that permanent entertainment predicts shopper satisfaction directly, and indirectly when considering the emotional state of pleasure as a mediator. Moreover, findings indicate that permanent entertainment indirectly influences the desire to stay at the mall through pleasure and arousal. In addition, pleasure mediates the relation of temporary and special event entertainment with satisfaction and the desire to stay at the mall.

**Practical implications** – This study adds to a better understanding of the role of entertainment types in shopping malls. The study also reveals how each type of entertainment can enhance different emotions and behaviors. Practical suggestions to this end are offered.

**Originality/value** – There is a lack of studies taking into consideration the different types of entertainment in shopping malls. This study is among the first to examine the effects of each entertainment type on specific behavioral responses. Moreover, the study addresses the mediating role played by shoppers' emotional states on the impact of entertainment types in satisfaction and desire to stay at the mall.

**Keywords:** Entertainment, Emotional states, PAD scale, Shopper satisfaction, Desire to stay, Shopping Malls.

**Paper type** Research paper

## 4.1. Introduction

There may be some ambiguity about how retailing will be evolving in the future (Grewal, Roggeveen, & Nordfält, 2017), however, few people would deny that shopping malls remain the most important destinations for in-store shopping. Although there are pale and tedious shopping malls struggling (Lee, Fang, Kim, Li, & Palmatier, 2018), these modern-style market agglomerations have become part of our global culture over the past decades, dominating the social life of many consumers (Calvo-Porrà & Lévy-Mangin, 2018; Warnaby & Medway, 2018). However, the reason behind visiting malls has shifted from shopping only, to shopping and other experiences that may be more important (Sadachar & Fiore, 2018). Moreover, shopping malls are facing several competitors besides the same field rivals, i.e. individual shops, street markets, town centers, and more recently, online shops, which may have an endless product selection, and features such price comparisons twenty-four hours a day, seven days a week. To face this stiff competition, many techniques have been developed by malls. One of these techniques is to provide better recreational facilities and activities for the shopper. Although shopping may be a task, and a passive, uninteresting and uninvolved obligation for many people (Cho & Workman, 2014; Fischer & Arnold, 1990; Sherry, McGrath, & Levy, 1993), many consumers see shopping as an interesting, involving and emotional experience (Compeau, Monroe, Grewal, & Reynolds, 2016; Jin & Sternquist, 2004; Triantafyllidou et al., 2017). Nicholls, Li, Mandokovic, Roslow, and Kranendonk (2000) report that consumers in the USA visit malls for diverse reasons, largely revolving around entertainment. Hence, providing shoppers with entertaining options will likely increase their satisfaction, and drive them to spend more time in the shopping mall. Moreover, retailing research documents the recreational nature of shopping malls, and stresses entertainment as an important aspect that contributes to improving mall performance (Kim, Christiansen, Feinberg, & Choi, 2005), and enhancing the whole shopping experience (Blut et al., 2018; Deli-Gray et al., 2014; Dennis, Brakus, Gupta, & Alamanos, 2014; El-Adly, 2007; Moss, 2007; Sadachar & Fiore, 2018).

Although several studies describe entertainment activities and facilities in shopping malls (e.g., Lotz, Eastlick, Mishra, & Shim, 2010; Stoel, Wickliffe, & Lee, 2004), research providing a systematic typology of these activities and facilities are limited (Anselmsson, 2016; Kang & Kim, 1999; Sit et al., 2003). Furthermore, existing typologies are not consistent nor comprehensive; many activities are mentioned in some studies but not in others, also, some currently available entertainment activities are not included in any of the provided typologies, like lottery shops, massage chairs, and temporary exhibitions. Hence, there is a need for an all-inclusive typology of entertainment activities and facilities.

Moreover, despite the fact that some effort has been made to provide a typology of entertainment in shopping malls (Anselmsson, 2016; Kang & Kim, 1999; Sit et al., 2003), to the best of the authors' knowledge, Sit et al.'s (2003) paper is the only study that attempted to independently examine the impact of each type of entertainment on consumer behavior. However, that study tests the impact of entertainment types solely on the shopping center image. Further, there have been profound changes in retailing and mall offer in the past 15 years. Hence, there is a gap in what concerns the impact of entertainment types on the different outcomes of shopper behavior. Understanding how and to what extent each type of entertainment influences shopper behavior helps mall developers and managers to devise the best entertainment and tenant mix for the shopping mall.

Additionally, the need to consider the emotional side of the shopper has been increasingly recognized in previous literature, and there is strong evidence regarding the effects of shopper emotional states on shopping behavior (e.g., Lin, Hoegg, & Aquino, 2018; Mccoll-kennedy et al., 2009; Reynolds-Mcilnay, Morrin, & Nordfält, 2017; Saintives & Lunardo, 2016). Although shopper emotions have been considered in studies about the effect of different indicators on consumer behavior (e.g., Loureiro & Roschk, 2014; Patwardhan & Balasubramanian, 2011), to date, there are no studies, to the best of the authors' knowledge, addressing the role of shopper emotional states when studying the effect of entertainment. Based on the above, the aims of the current study are:

- To provide an updated and more comprehensive typology of entertainment activities and facilities in shopping malls.
- To empirically examine how each type of entertainment influences shopper behavior.

- To examine the effects of types of entertainment while taking into consideration the impact of shopper emotional states.

The rest of the paper is organized as follows. First, based on prior research, we discuss the theoretical underpinnings and provide an entertainment typology in the context of shopping malls. Moreover, we discuss the hypotheses that form our model. Second, we outline the research design and discuss the methods of testing our model. Lastly, the findings and implications are discussed.

## **4.2. Theoretical background**

### **4.2.1. Entertainment in shopping areas**

Although its name indicates the act of “shopping”, the shopping mall is not a place to only shop. It is a social and recreational space as well (Reimers & Clulow, 2004; Warnaby & Medway, 2018). Shim and Eastlick (1998) point to the possibility of combining retail and entertainment formats in order to draw mall shoppers, by aligning the image of goods-services-entertainment mix offered with customers' achievement orientations. The role of entertainment in shopping areas has been widely discussed in the retailing literature, and evidence has been provided on its impact on consumer behavior. In the context of shopping malls, research supports the effect of entertainment on the number of mall visits (Das & Varshneya, 2017; Kim et al., 2005; Swinyard, 1998), the consumer decision-making in choosing a shopping mall (Mohd Ali, 2013), and the consumer's overall evaluation of the mall (Calvo-Porral & Lévy-Mangin, 2018; Wakefield & Baker, 1998). Moreover, Christiansen et al. (1999) suggest that mall entertainment dimensions facilitate or impair mall productivity, and De Nisco and Napolitano (2006) indicate that greater entertainment orientation is associated with competitive intensity in the local market, better sales performance, and better market performance.

Retailing research focuses also on the entertainment value in shopping areas. Entertainment and fun shopping are pull factors of shopping malls (Baker & Haytko, 2000; Gorter et al., 2003). Thereupon, Yiu and Xu (2012) develop a shopping mall tenant mix model and illustrate the advantages of larger malls in allowing a variety of non-retail tenants such as entertainment. Sit et al. (2003) examine the contribution of entertainment to shopping center image and use entertainment as a mean for identifying distinct market

segments. Moreover, studying male shoppers' behavior, Funches, Yarber-Allen, and Johnson (2017) discuss the importance of entertainment facilities for Millennials, Generational Xers, and Baby Boomers. In the context of using technology as an entertaining tool, Aaltonen, Arvola, Heikkilä, and Lammi (2017) study shopper responses to an entertainment robot in a shopping mall. Results indicate that adults see robots as a useful technology that can help to guide shoppers, while kids deal with it as an entertainment application. In the same vein, Pantano and Naccarato (2010) discuss how entertaining advanced technologies can enhance consumers' shopping experience.

Furthermore, entertainment has been studied as one of the main indicators of leisure and enjoyment. In this context, Frasquet et al. (2001) consider "events and exhibitions" and "attractive leisure offer" associated with the atmosphere-leisure. El Hedhli et al. (2013) find that entertainment as a leisure-related factor has an impact on shopping well-being, which, in turn, influences mall loyalty, and positive word of mouth. In the same vein, Scarpi, Pizzi, and Visentin (2014) discuss the dissimilarity of word-of-mouth in goal-oriented shopping as compared to fun shopping when shoppers share more experiential issues. Moreover, when investigating the role of enjoyment of the shopping experience, Hart, Farrell, Stachow, Reed, and Cadogan (2007) identify entertainment as an antecedent of enjoyment.

It is worth mentioning that although many studies confirm the role of entertainment in enhancing the shopping experience, and positively influencing retailing outcomes, there are some exceptions where entertainment appears as a non-significant factor. Kim et al. (2005) list below "entertainment" all the possible attributes that can entertain shoppers. Their study identifies thirty-eight items distributed over nine main categories: layout, design and architecture, extra facilities, mood, courtesy, getting out, exhibition, music, food, and hanging around. "Layout" and "getting out" are the only factors found to influence the mall visit. On the other hand, and out of six consumer segments identified by Sit et al. (2003), only "entertainment" and "service" shoppers tend to seek emotionality-oriented entertainment. Moreover, Kaihatu and Spence (2016) indicate entertainment has no significant effect on mall image. Finally, Anselmsson (2016) who interviewed 96 shopping center managers to investigate the effect of seven common categories of satisfaction and patronage determinants on sales and number of mall visitors, found that entertainment had no significant impact on sales and visit growth. Furthermore, the findings of this study also show that improvements in the entertainment dimension are not considerable. However,

the author mentions that these results may be due to the fact that the applied entertainment formula was not the right one.

Based on the above, entertainment is a complex factor that needs to be investigated more broadly, given the inconsistent findings of previous research and the diversity of entertainment options (Tsai, 2010). For instance, Kim et al. (2005) indicate the need to examine the relationship between individual entertainment aspects, and whether some entertainment attributes are mediated by others. This kind of research can contribute to determining the most important attributes. Tsai (2010, p. 323) summarizes the importance of further research on entertainment to reach the best recreational formula that can be used as a strategic shopper-attracting tool: "The inconclusive or even contradictory research results have not reached a point where the entertainment paradigm becomes invalid as a feasible strategic option that mall managers may employ. Nevertheless, these results cast strong doubts upon the appropriateness regarding the creation of entertainment experience as a critical essence in the management model for elevating the shopping mall competitiveness".

#### **4.2.2. Entertainment typology**

The development of shopping malls over the years led to extending the tenant mix by adding facilities like food courts, education, leisure, and entertainment (Wong & Yu, 2003). Based on that, several articles describe mall entertainment activities and facilities. Describing a regional shopping mall built in 1980, and refurbished in the late 1990s in the Midwest, Stoel et al. (2004) list multiscreen cinema, food court, kiddie rides, and a large arcade area as that mall's entertainment facilities. Lotz et al. (2010) refer to viewing movies, visiting recreational facilities, play areas, arcades, and attending special events as mall entertainment activities. Moreover, Kang and Kim (1999) discuss the importance of entertainment in shopping malls to compete with other retail formats and point to its role in drawing consumers away from the electronic delights of the home. The authors review the typology of entertainment that was developed by the International Council of Shopping Centers (ICSC) in 1995. This typology considered two main entertainment types: retailer-driven entertainment (including center entertainment and shopping experience) and Owner/developer-driven entertainment (permanent and programmatic). It is worth mentioning that we were unable to find a more recent typology by ICSC. Furthermore, Li,

Lee, and Chan (2001) believe that all department stores, supermarkets, food courts, cinemas, ice-skating rinks, and boutiques are to be considered as entertainment facilities, while, Yiu and Xu (2012) list all the following as mall entertainment attributes; cinemas and theatres, disco/karaoke, sports, gambling centers, game centers, photo-sticker taking, internet bars, rentals of books, videos, DVDs, and videotapes.

A broader discussion of entertainment types appears in that Sit et al. (2003) study, in which the authors distinguish between two types of entertainment: special event entertainment, which is offered on an occasional or seasonal basis, and permanent entertainment, which is incorporated into a shopping center for a longer duration, like movie theaters, and video arcades. Sit and Merrilees (2005) provide a similar classification of entertainment in shopping centers. They identify three categories: special event entertainment, like fashion shows and celebrity signing; specialty entertainment, and food entertainment, which are the permanent part of the shopping mall tenant mix, like movie theatres, video arcades, and eateries, cafés or restaurants. More recently, Anselmsson (2016) discusses types of entertainment as permanent entertainment and temporary and event-based entertainment. A cinema, or a larger cinema complex, an amusement park, special areas for organizing and hosting special events, playground zones for kids are the main facilities related to the first type, while examples of temporary and event-based entertainment are musical performances, sports and radio station events, and the hosting of other civil and charity events. In the same context, Hart et al. (2007) note the additional entertainment activities provided in shopping malls during special seasons (Christmas, Thanksgiving, Easter, and Black Friday). It should be pointed out that Sit et al. (2003) is the only study that empirically tested entertainment types independently, specifically they examined specialty entertainment and special event entertainment. Accordingly, and relying on the entertainment attributes classification presented in Anselmsson (2016) and Sit et al. (2003), we develop and propose an inventory that places all the above-mentioned entertainment attributes in permanent entertainment (PENT), and temporary and special event entertainment (TENT) (Table 14). Further, we have added a few entertainment options to this classification which, to the best of our knowledge, have not previously been reviewed in the literature, but are currently found in shopping malls. The inventory is open and more recreational activities and facilities may be added.

**Table 14.** Permanent entertainment, and temporary and special event entertainment

Permanent entertainment	Temporary and special event entertainment
Cinemas, a multiscreen cinema, cinema complex, theaters, and/or movie theaters	Special events
Food court, eateries, cafés or restaurants	Temporary art galleries/temporary exhibitions*
Kiddie rides, playground zones for kids, and play areas	Musical performances
Arcade area, video arcade, disco/karaoke	Celebrity signing
Amusement parks, sports, ice-skating rinks, indoor ski slope*, indoor skydiving experience*, Go-kart*, bowling, and billiards center*, balloon rides*, spas*, fitness clubs*, gambling centers, game centers	Visits of celebrity and public figures*
Internet bars, rentals of books, videos, DVDs, and videotapes	Fashion shows, open casting (for kids and adults)*
Massage chairs*, Photo-sticker booths	Album or movie launching*
Fountain shows*, dancing fountains*, water entertainment* aqua-play* aquarium*	Book launching*
Lottery shops*	Radio station events
Special areas for organizing & hosting events	Sports events
	Civil events
	Charity events
	Additional entertainment provided in shopping centers during special seasons (Black Friday, Christmas, Thanksgiving, or Easter)
	Seasonal kiosks *
	Temporary kids activity areas *

Sources: Developed by the authors | \* Not mentioned in the reviewed studies

#### 4.2.3. Potential outcomes of entertainment

Retailing literature refers to several outcomes of entertainment. Based on the studies reviewed, retail patronage is the most prevalent outcome. Sirpal and Peng (1995) indicate food courts as entertainment facilities which increase patronage in shopping centers. Also in the context of shopping centers, Haynes and Talpade (1996) identify entertainment as an essential factor since it induces an exciting or fun shopping experience, which in turn could entice consumer patronage. In the same vein, Sadachar and Fiore (2018) find that entertainment experience predicts patronage intentions in malls, and Calvo-Porrall and Lévy-Mangín (2018) discuss the effect of the leisure mix on purchase intention. To measure the

beliefs about mall attributes, Stoel et al. (2004) ask mall shoppers what they think about the selection of entertainment features for children, for young adults, and for adults.

Results show that the whole hedonic shopping value has a positive impact on time spent at the mall, and re-patronage intention. Similarly, Tsai (2010) indicates the superiority of the shopping malls that provide entertainment experience to their shoppers and point out that recreational experience can help malls to differentiate from other shopping outlets. This study identifies the holistic entertainment experience dimensions of exhilaration, exploration, relaxation, and socialization, and studies their mediating role between the antecedents of atmospherics, product arrangement, service, mall image, special events and refreshment, and the outcomes of patronage frequency and purchase amount. The results show a significant effect of cognitive and socio-cultural factors on the holistic entertainment experience, which in turn has a significant impact on patronage frequency and purchase amount.

Satisfaction is another well-recognized outcome of entertainment. Sit and Merrilees (2005) acknowledge the impact of entertainment on overall satisfaction, and Patel and Sharma (2009) demonstrate that hedonic satisfaction is derived from many factors, including entertainment. Further, Kesari and Atulkar (2016) discuss how entertainment influences customer satisfaction through hedonic value, while, Wakefield and Baker (1998) indicate that a variety of stores, food service, and entertainment are considered a part of the consumers overall evaluation of the mall. In the same vein, Ahmad (2012) refers to entertainment as one of the main factors affecting shopper satisfaction and loyalty in shopping malls.

Thus, the impact of entertainment value has been studied on a wide range of other outcomes related to consumer behavior, such as the number of mall visits (Calvo-Porrá & Lévy-Mangín, 2018; Swinyard, 1998), mall profitability, mall productivity (Christiansen et al., 1999), market performance (De Nisco & Napolitano, 2006), sales performance (De Nisco & Napolitano, 2006; Deli-Gray et al., 2014), atmosphere-leisure (Frasquet et al., 2001), loyalty (Ahmad, 2012; Funches et al., 2017), and overall evaluation of the shopping venue (Ozuduru et al., 2014). Since our study will focus on the shopping experience at the

most visited mall, it is relevant to consider satisfaction rather than retail patronage as the studied shopping outcome.

Satisfaction is an important outcome as it has been found to influence loyalty (Anisimova, Weiss, & Mavondo, 2019; El-Adly & Eid, 2016), and purchase intentions, the most critical outcome in the retailing context (Alavi et al., 2016; Li & Murphy, 2013). Based on that, the following hypotheses are proposed:

*H1: Permanent entertainment (PENT) is positively related to shopper satisfaction.*

*H2: Temporary and special event entertainment (TENT) is positively related to shopper satisfaction.*

Furthermore, the research in this area has missed an important outcome which is likely to be influenced by entertainment, specifically the desire to stay at the mall. We believe this outcome is crucial for several reasons. As satisfaction, time spent at shopping areas influences re-patronage intention and purchase (Helmefalk & Hultén, 2017), and higher amounts of money spent are associated with longer stays (Lueg, Ponder, Beatty, & Capella, 2006; Morrison, Gan, Dubelaar, & Oppewal, 2011). Entertainment can be one of the strongest antecedents that increases shoppers' desire to spend more time at the mall, and it is important to understand if both types of entertainment affect this factor. Hence, the following hypotheses are also proposed:

*H3: Permanent entertainment (PENT) is positively related to the desire to stay at the mall.*

*H4: Temporary and special event entertainment (TENT) is positively related to the desire to stay at the mall.*

Moreover, as mentioned before, shoppers' emotions influence their behavior. Several studies consider and test the mediating role of shopper emotional states between different indicators and shopper behavior (Alsaggaf & Althonayan, 2018; Ou & Verhoef, 2017). Dawson et al. (1990) find that the emotions of pleasure and arousal mediate the impact of shopping motives on customer satisfaction. Also, Im and Ha (2011) examine the role played by the emotions of pleasure, arousal, and dominance in mediating the relationship between the ambient and variety factors and satisfaction. Machleit and Mantel (2001) find that both emotions of gratitude and anger, as mediators, influence shopper satisfaction. More and

more, the mediating role of shopper emotional states is included in several other studies (Eroglu et al., 2005; Varela-Neira et al., 2008). Based on this, it is reasonable to expect that emotions will also mediate the relationships studied in the current study, hence, the following hypotheses are proposed:

*H5*: Emotional states mediate the relationship between permanent entertainment (PENT) and shopper satisfaction.

*H6*: Emotional states mediate the relationship between temporary and special event entertainment (TENT) and shopper satisfaction.

*H7*: Emotional states mediate the relationship between permanent entertainment (PENT) and the desire to stay at the mall.

*H8*: Emotional states mediate the relationship between temporary and special event entertainment (TENT) and the desire to stay at the mall.

The proposed hypotheses can be summed up by the following research model (Figure 5).

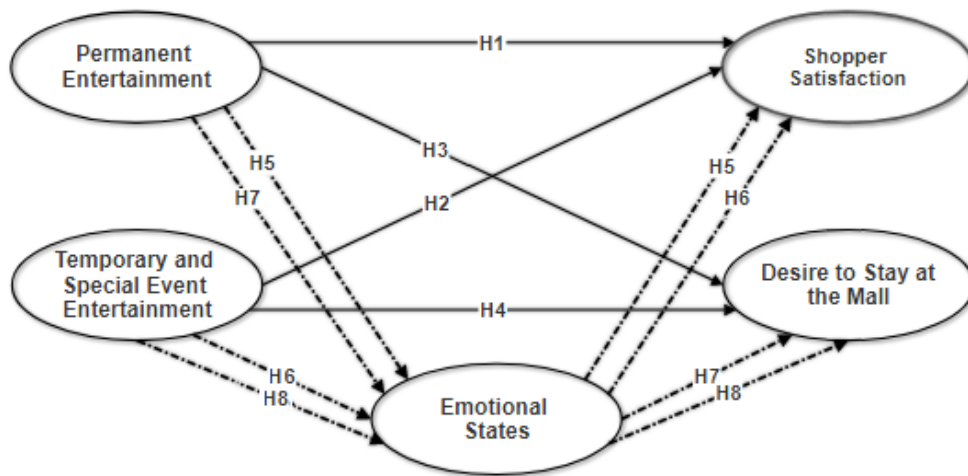


Figure 5. Research model of study 2

## 4.3. Method

### 4.3.1. Data collection

In order to test the proposed model, a survey of mall shoppers was conducted online using a snowball sampling technique; we identified potential subjects while trying to target respondents from different demographic segments. At the end of the survey, participants were asked to share the survey with their contacts. A filter question was included at the beginning of the questionnaire to dismiss individuals who do not shop usually in any of the

studied shopping malls. Existing scales in the relevant literature were adapted to measure entertainment (El Hedhli et al., 2013; Sit et al., 2003), taking into consideration the proposed classification of entertainment into permanent (PENT) and temporary and special event entertainment (TENT). Specifically, three items were used to measure PENT, and four items were used to measure TENT (check Table 15 for the specific items used). The questions were adapted to suit the nature and type of shopping malls of the studied population, and, most importantly, to suit the proposed typology.

Regarding emotions, the study uses the Pleasure-Arousal-Dominance scale (PAD) of (Mehrabian & Russell, 1974) which is composed of pleasure (6 items), arousal (5 items), and dominance (5 items). This scale has been termed "...the premier measure in the field of environmental psychology for assessing individuals' emotional responses to their environment" (Machleit & Eroglu, 2000, p. 102), and has been widely employed for evaluating emotions in various marketing and consumer research contexts (Babin & Darden, 1995; Im & Ha, 2011; Sherman et al., 1997).

Existing scales in the relevant literature were also adapted to measure the dependent factors: satisfaction (Kwon et al., 2016; Teller, 2008) and desire to stay at the mall (Wakefield & Baker, 1998). Finally, all factors, except emotions, were measured on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). The emotional states were measured on a 5-point semantic differential scale (ex. unaroused - aroused). All the mentioned scales demonstrated appropriate reliability in previous studies. The participants were asked to report their demographics (age, gender, marital status, and education levels).

The questionnaire of the study was reviewed by two consumer behavior researchers before being subject to a pretest. The purpose of the pretest was to confirm that the questionnaire had no comprehension issues, confusing points, or uncomfortable questions. Subjects of the pretest included 11 volunteers who had prior shopping experience in the studied shopping malls. Moreover, we made sure that more than half of the volunteers had experience with kids-related mall entertainment options. The pretest was conducted in an open-end format, in which the subjects could raise questions about the items at any time. The wording of a few items was slightly revised following several suggestions from the pretest subjects. However, in general, pretest subjects indicated a clear understanding of the survey items.

Shoppers of different ages were sampled at four major shopping malls located in the cities of Braga and Guimarães (Portugal). These malls are recognized as top local shopping destinations, and they offer a range of entertainment venues. Before answering the questionnaire, the participants were assured that the collected data would be used for purely academic purposes, and their responses were anonymous; following the disclaimer, and from the four above-mentioned malls, the participants were asked to choose the mall they visit the most, and to answer the questionnaire based on their shopping experience in the mall they named.

#### **4.4. Results**

The final sample size was 484. About 58% of our respondents were female, and 39.5% of them were single. Approximately, 55% of respondents were between 21 and 40 years of age, and most of them (91.5%) indicated an educational level of a high school diploma or more.

In order to assess the proposed model, first the data were tested using different goodness of fit measures, and the model fit was checked using confirmatory factor analysis (CFA). Next, Structural Equation Modelling, SEM, was used to test the hypotheses as multiple indicators of latent variable constructs are used. Essential features of SEM include the potential to explicitly distinguish between observed and latent variables, and the capacity to analyze covariance or means in experimental or nonexperimental designs (Kline, 2015).

##### **4.4.1. Assessment of the measurement model**

CFA with the original items resulted in a satisfactory fit. However, to correspond to the thresholds recommended by Schreiber et al. (2006), a series of purification processes were operated based on theoretical considerations and diagnostic cues. As a result, three indicators were removed from the arousal factor, which resulted in an acceptable model fit:  $\chi^2=595.392$ ,  $df=278$ ,  $\chi^2/df=2.142$ , CFI=0.957, TLI=0.950, IFI=0.958, RMR=0.030, SRMR=0.0377, RMSEA=0.049 [90% CI=0.043; 0.054]. Moreover, a reliability analysis was carried out on the 26 remaining indicators. Cronbach's alpha values exceeded the recommended threshold of 0.70 for all the constructs (Netemeyer, Bearden, & Sharma, 2003), and composite reliability scores ranged from 0.754 to 0.897 providing additional evidence for reliability. Convergent validity of each scale was also confirmed by the Average

Variance Extracted, AVE, of each latent construct, which exceeded the minimum cutoff of 0.5 (Fornell & Larcker, 1981; Hair et al., 2014) (Table 15). Thus, constructs showed appropriate measurement properties.

**Table 15.** Item loading, Cronbach's  $\alpha$  values, AVE and composite reliability (Study 2)

Factor	Item loading	Cronbach's $\alpha$	AVE	Composite reliability
<b>Permanent entertainment</b>		0.719	0.51	0.754
PEN1: There are plenty of permanent entertainment facilities at this mall (ex: Cinema, food court, sports or gaming center, etc.)	0.65			
PEN2: There are plenty of permanent entertainment program for kids (ex: play areas, and fun spaces for kids, etc.)	0.77			
PEN3: I think this mall is great when it comes to permanent entertainment facilities	0.71			
<b>Temporary and special event entertainment</b>		0.749	0.66	0.885
TEN1: There are plenty of temporary entertainment events at this mall (ex: music performance, fashion shows, sport-related events, etc.)	0.85			
TEN2: There are plenty of entertainment events during special seasons (ex: Christmas, and Easter)	0.84			
TEN3: There are plenty of temporary kids-related events	0.71			
TEN4: I think this mall is great when it comes to temporary entertainment	0.85			
<b>Pleasure</b>		0.704	0.59	0.897
PLR1: Annoying - Pleasing	0.75			
PLR2: Unhappy – Happy	0.79			
PLR3: Unsatisfied - Satisfied	0.74			
PLR4: Melancholic - Contented	0.79			
PLR5: Despairing - Hopeful	0.80			
PLR6: Bored – Relaxed	0.74			

Factor	Item loading	Cronbach's $\alpha$	AVE	Composite reliability
<b>Arousal</b>		0.766	0.75	0.859
ARS1: Calm – Excited	0.88			
ARS2: Relaxed - Stimulated	0.85			
<b>Dominance</b>		0.762	0.57	0.869
DMN1: Care-for - In-control	0.74			
DMN2: Influenced - Influential	0.75			
DMN3: Guided - Autonomous	0.73			
DMN4: Submissive - Dominant	0.82			
DMN5: Awed - Important	0.74			
<b>Shopper satisfaction</b>		0.706	0.68	0.895
STF1: I am satisfied with my decision to visit this sh. mall	0.84			
STF2: My choice to visit this shopping mall is a wise one	0.87			
STF3: This shopping mall meets my expectations	0.77			
STF4: I am sure it is the right thing to visit this shopping mall	0.82			
<b>The desire to stay at the mall</b>		0.712	0.65	0.788
DSR1: I like to stay at this mall as long as possible	0.82			
DSR2: I enjoy spending time at this mall	0.79			

#### 4.4.2. Assessment of the structural model

To test the proposed hypotheses, the structural model was estimated. Regarding the direct hypotheses as shown in the regression weights table (Table 16), PENT has a significant effect on shopper satisfaction but not on the desire to stay at the shopping mall, thus, H1 is supported, while H3 is not. TENT shows no significant effect on either outcome, therefore, H2 and H4 are not supported.

With regard to the mediating role of shopper emotional states, and starting with the effect of each entertainment type on the three used emotional states, PENT shows a significant effect on all the considered emotional states, while TENT shows an impact on pleasure and dominance but not on arousal. Regarding the path between the emotional states and the considered shopper behavior outcomes, only pleasure has a significant effect on both outcomes, while arousal influences only the desire to stay at the mall. However, dominance shows no significant effect on any of the outcomes. Based on the above, H5, H6, H7, and H8 are partially supported as the emotional states of pleasure and arousal mediate the relationship between the two types of entertainment and at least one of the studied shopper behavior outcomes. In other words, pleasure mediates the relationship between the two types of entertainment and both outcomes, while arousal mediates only one relationship between PENT and the desire to stay at the shopping mall. Dominance does not have any mediating impact.

**Table 16.** Regression weights (Study 2)

	Estimate	S.E.	C.R.	P
Permanent entertainment → Shopper satisfaction	0.490	0.122	4.024	**
Permanent entertainment → The desire to stay at the mall	0.323	0.175	1.845	0.065
Temporary and special event entertainment → Shopper satisfaction	-0.039	0.068	-0.568	0.570
Temporary and special event entertainment → The desire to stay at the mall	0.139	0.100	1.388	0.165
Permanent entertainment → Pleasure	0.706	0.090	7.850	**
Permanent entertainment → Arousal	0.385	0.105	3.651	**
Permanent entertainment → Dominance	0.453	0.087	5.196	**
Temporary and special event entertainment → Pleasure	-0.167	0.058	-2.880	**
Temporary and special event entertainment → Arousal	-0.109	0.062	-1.772	0.076
Temporary and special event entertainment → Dominance	-0.226	0.061	-3.686	**
Pleasure → Shopper satisfaction	0.540	0.070	7.719	**

	Estimate	S.E.	C.R.	P
Arousal → Shopper satisfaction	-0.006	0.050	-0.112	0.911
Dominance → Shopper satisfaction	-0.016	0.058	-0.279	0.780
Pleasure → The desire to stay at the mall	0.697	0.104	6.675	**
Arousal → The desire to stay at the mall	0.198	0.077	2.575	**
Dominance → The desire to stay at the mall	0.055	0.087	0.631	0.528

\* P-Value < 0.05, \*\* P-Value <0.01

PENT is the only variable that has simultaneously a significant direct and indirect impact on shopper satisfaction. Due to that, and to examine the indirect, direct, and total effects of this variable in our model, the bootstrapping method is employed. Table 17 summarizes the results of the decomposition analysis for PENT on shopper satisfaction. Specifically, the total effect of PENT is mediated by pleasure and arousal. The analysis demonstrates that the direct effect of PENT on satisfaction is higher than the indirect effect.

#### 4.5. Discussion and conclusion

Although retailing has gone through major changes in past years, shopping malls remain a top destination for in-store shopping. Entertainment is a fixed component in the offer of shopping malls. However, exactly how entertainment affects shopping outcomes remains unstudied, and a few gaps call for further research. Therefore, this paper aims first to offer a comprehensive typology of entertainment, distinguishing between temporary and permanent entertainment activities in the context of shopping malls. In addition, this typology includes all the related recreational attributes and can be used as an editable guide for those concerned. Based on this typology, the study empirically investigates how the derived recreational types influence shopper behavior. The empirical study considers also the potential role played by shopper emotional states in the relation between entertainment and behavior.

Regarding the conceptual objective of this paper, we provide a broader and more comprehensive inventory of entertainment. Table 14 lists a number of recreational options for shopping malls falling under permanent and temporary entertainment activities and

**Table 17.** Direct, indirect and total effects (Study 2)

Predictor variables	Permanent entertainment			Temporary and special event entertainment			Pleasure			Arousal		
	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total	Indirect	Direct	Total
	Effect	Effect	Effect	Effect	Effect	Effect	Effect	Effect	Effect	Effect	Effect	Effect
Pleasure	-	0.706**	0.706**	-	-0.167	-0.167	-	-	-	-	-	-
Arousal	-	0.385**	0.385**	-	-0.109	-0.109	-	-	-	-	-	-
Satisfaction	0.372**	0.490**	0.862**	-0.086**	-0.039	-0.124	-	0.540**	0.540**	-	-0.006	-0.006
Desire to stay	0.593**	0.323	0.916**	-0.150	0.139	-0.012	-	0.697**	0.697**	-	0.198**	0.198**

Notes: Standardized path estimates are reported. \*\* P-Value < 0.01.

facilities. This inventory is a compilation of all the entertainment options that have appeared in previous studies, completed with examples of amusement that were identified in shopping malls which, at least to the best of our knowledge, had not previously been mentioned in the literature. At any rate, it is very important to consider the proposed inventory as an open list of entertainment activities and facilities. This list can always be modified based on the development of recreational activities and technologies.

Concerning the empirical study, we tested a number of direct and mediation hypotheses. Regarding the direct impact hypotheses referring to the relationship between entertainment and shopper behavior, results demonstrate that only PENT influences shopper satisfaction. These findings are consistent with a range of different context studies that find a significant relationship between entertainment and satisfaction (Ahmad, 2012; Patel & Sharma, 2009; Sit & Merrilees, 2005; Wakefield & Baker, 1998), and between entertainment and other consumer behavior outcomes (Christiansen et al., 1999; De Nisco & Napolitano, 2006; El-Adly, 2007; Haynes & Talpade, 1996; Swinyard, 1998). However, results reveal that the same type of entertainment does not have a direct effect on the desire to stay at the mall. Moreover, TENT did not show any direct impact on either of the studied outcomes. These findings are in line with previous studies which find no significant impact of entertainment on shopper behavior (Anselmsson, 2016; Kim et al., 2005). Sit et al. (2003) found different significant impacts depending on the shopper type considered. These findings shed some light on the contradictory findings of previous studies as not all types of entertainment may be equally relevant. When assessing this dimension of the shopping mall offer, consumers may only consider permanent entertainment.

In terms of the mediating impact (H5 – H8), results confirm several of the proposed relations. First, PENT influences all the emotional states, so does TENT, excluding arousal. Second, pleasure influences both shopper satisfaction and the desire to stay at the mall, while arousal influences only the desire to stay at the mall. However, dominance shows no significant effect on either outcome. In short, pleasure mediates the relationship between both types of entertainment and both outcomes. This finding is in line with the results of different retailing studies that find pleasure to be a mediator between different indicators and different outcomes of consumer behavior like satisfaction (Im & Ha, 2011; Walsh, Shiu, Hassan, Michaelidou, & Beatty, 2011), the willingness to buy (Baker et al., 1992), hedonic value, utilitarian value, approach (Yüksel, 2007), retail choice, and retail preference

(Dawson et al., 1990). Moreover, arousal mediates the relationship between PENT and the desire to stay at the mall. This finding differs from Im and Ha (2011) who did not find a mediating role for arousal, but is in line with the majority of studies that explore the role played by arousal as a mediator between different antecedents and outcomes of consumer behavior (Baker et al., 1992; Dawson et al., 1990; Walsh et al., 2011; Yüksel, 2007). The emotional state of dominance proved to be influenced by both types of entertainment, however, its mediating role is not supported as results show no significant relation between dominance and any of the studied outcomes. In fact, many studies do not include the emotional state of dominance in their models (Dawson et al., 1990; Eroglu et al., 2003; Yüksel, 2007), and similarly to our results, Im and Ha (2011) find it does not have a significant mediating role. However, the significant role of dominance feeling in Elmaslhara and Soares's (2019) study suggests that the conflicting results regarding this factor call for further research for a better understanding of the role of dominance. Dominance could be a mediator when considering different outcomes, such as retail patronage, positive word of mouth, and willingness to buy.

To sum up, results indicate a direct effect of PENT on shopper satisfaction. Moreover, pleasure and arousal mediate the relationship between at least one of the entertainment types and shopper satisfaction and/or desire to stay at the mall. Hence, enhancing the shopping experience emotionally leverages the desired benefits from mall entertainment.

#### **4.5.1. Theoretical contributions**

To start with, this study offers a typology and detailed inventory of activities and facilities of both types of entertainment, PENT and TENT. This classification includes all the entertainment options found in the related literature updated with other recreational facilities and activities currently found inside malls. This inventory can be used to guide further research in this area. However, this is an in-progress classification which can be enriched to include emerging forms of entertainment in shopping areas (Table 14).

Moreover, the findings of the empirical part of this study extend and complement previous research in this area. First, although entertainment has received considerable attention in the area of retailing, few authors study each type of entertainment separately (Sit et al., 2003). (Sit et al., 2003). This research extends the literature by investigating PENT and TENT individually, to have a better understanding of how each entertainment type

influences the different outcomes of shopper behavior. Specifically, our study shows that the distinction between PENT and TENT is relevant to understand how entertainment options affect consumer behavior. In fact, only PENT shows a direct impact on satisfaction which helps to reconcile inconsistent findings of previous studies. Second, this study adds to research about the impact of entertainment on new less studied behavioral responses, namely the desire to stay at the mall. Finally, the empirical part of this study is a good contribution to studies using the S-O-R model; explaining the relation between stimulus and response through organisms represented by consumer emotional responses (Baker et al., 2013; Chang et al., 2011; De Nisco & Warnaby, 2014; Kim, Park, Lee, & Choi, 2016; Koo & Kim, 2013). Specifically, in what concerns this mediation of emotional states, our study demonstrates that pleasure mediates the relationship between PENT, TENT, and both shopper satisfaction and the desire to stay at the mall. This suggests that pleasure is an effective emotion impacting customers' experiences in the mall. Moreover, the mediating role of arousal between PENT and the desire to stay at the mall is revealed as well.

#### **4.5.2. Managerial contributions**

Changes to the retailing industry are a reality. For now, and for some malls, these changes may still be controllable. However, technological developments in e-commerce can have a strong impact on in-store shopping with far-reaching implications for the mall tenant mix. Examples include online virtual fit technologies and augmented reality for fashion retailing or 3-D printing. Malls should be preparing for these dramatic changes. Assessing the role of entertainment in the mall shopping experience may allow one to tackle the transformative influence of technological evolution and consumer behavior changes.

Offering a classification of entertainment types in the shopping mall is the first managerial implication of this research. This classification provides mall managers with a flexible updated checklist that is useful to formulate the entertainment mix that best suits the mall's possibilities and objectives. It is worth mentioning that the usefulness for practitioners of the classification will depend on the construction phase of the shopping mall. Shopping malls in the design- or under-construction stages have more chances of benefiting from including PENT options, since they may still increase the spaces allocated for entertainment facilities. Of course, options such as cinemas and food courts are already commonly considered by mall developers, however, new and original entertainment facilities can help

in distinguishing the mall from competing shopping destinations. The new entertainment facilities could be related to the city needs or could be a totally new idea. Who said a modern museum such as a chocolate museum has no place in a shopping mall? It could simultaneously be a modern museum and the biggest chocolate retailer in the city. To draw customers, retailers should merge retail and entertainment formats (Shim & Eastlick, 1998). A further example of this would be famous local football clubs building their museum and a fan shop in the shopping mall instead of building them in the stadium which sometimes is far from the city center. The city characteristics (size, tourist attractions) can play a big role in defining PENT facilities. Two more remarks are worth making at the level of PENT: First, we think malls should benefit to the maximum from new technologies when structuring entertainment facilities, this will make them more sophisticated and modern. Second, mall developers should make it easier for emerging entertainment providers to join the mall, by allocating suitable spaces for them at affordable prices.

In the case of already built shopping malls that have limitations in redefining their entertainment offer, benefiting from PENT will be limited to improving the existing facilities (cinemas, food courts, kids' zone, and so on). In such cases, TENT can improve the mall entertainment mix. Based on our results regarding the lack of significant impact of TENT, these offers should be scheduled and promoted to consumers well in advance. Different types of events can be hosted in the shopping mall, these seasonal activities can be in line with city events and celebrations. Moreover, it should target different segments of customers and all generations from kids to seniors.

In addition, although PENT can be a more effective entertainment tool, the possibility of being creative and innovative in TENT is higher, and this brings more uniqueness to the shopping mall experience. There are countless options for TENT from workshops, fitness activities, musical performances, fashion shows, stand-up comedy shows, and so on, to contests for shoppers, or for brands in the mall represented by their loyal customers. Moreover, we think malls could be privileged venues for hosting different kinds of competitive events, like video gaming and electronic sports, cooking, or make-up competitions. These events can be broadcasted online on malls' social media. This can create a lively and dynamic entertainment atmosphere enriching consumers' experience in the mall.

In addition to the direct effect of PENT on shopper satisfaction, results reveal how the two types of entertainment influence shopper emotional states and how these affect behavior. Considering these relations offers several directions for mall management to enhance the shopping experience. Increasing pleasure levels leads to more positive behavior (both in terms of satisfaction and desire to stay in the mall), moreover, specific entertainment formulas can raise arousal, and lead shoppers to spend more time at the shopping mall. Games and competitive activities may achieve this. In addition, when planning TENT activities, the shopper's emotional side should also be considered since it enhances entertainment effects.

#### **4.5.3. Limitations and future research**

Despite large and diversified, the sample is regional in nature. Although the studied shopping malls are the biggest malls in a particular geographic area, results might be different in other contexts, also they might vary in another entertainment mix. Moreover, the unique characteristics of malls do not allow us to generalize the results to other shopping areas like town centers and shopping streets. However, future research might test the model in additional shopping contexts.

This study offers further directions for future research. First, additional research could explore the potential contribution of entertainment to other behavioral outcomes such as patronage intention, and word-of-mouth. Moreover, testing the same model with specific samples can lead to different results and important implications. In this case, we think that it is important to explore the effect of kids' entertainment on children and parents who have small children. We believe that their motivations are different from other segments, hence the entertainment mix which is adequate for this segment differs. Further, other shopper characteristics such as age, and gender could be investigated also for their potential moderating influence.

Finally, and back to the conceptual part of this study, future research can classify entertainment facilities and activities based on different norms. For example, a typology related to the cost of entertainment can be developed to explore where malls aim to make direct profit from entertainment and where free-entertainment is provided to gain indirect results. However, different criteria can be used for the sake of classifying the entertainment mix.

## Chapter 5

### STUDY 3

#### The Influence of Atmospherics General Interior Variables on Shoppers' Emotions and Behavior

##### Abstract

This study applies the systematic categorization developed by Turley and Milliman (2000) of general interior variables (GIV) to conduct a comprehensive evaluation of the shopping sensory environment. A survey-based study focusing on the impact of the shopping mall GIV on shopper behavior while considering the mediating role of shoppers' emotional states is reported. Results indicate a direct impact of positive attitudes towards color schemes, mall lighting, scent and temperature on shopper satisfaction and/or the desire to stay at the mall. Regarding the effect of emotional states, pleasure and arousal mediate the relation between several variables and the studied outcomes. Implications for theory and retailers are discussed.

**Keywords:** Atmospherics; General interior variables; Emotional states; PAD scale; Shopper satisfaction; Shopping Mall

##### 5.1. Introduction

Atmospherics are key determinants of enjoyable shopping environments and have been shown to impact consumers' emotional states and, in consequence, shopping outcomes (Roschk, Loureiro, & Breitsohl, 2017). The retail atmosphere is one of the most active areas of retailing studies. Although Kotler (1973) was the first to use and define the term "atmospherics", several studies had discussed environmental factors before Kotler's landmark article, including display (Applebaum, 1951; Granbois, 1968), shelf space (Cox, 1964, 1970; Curhan, 1972; Frank & Massy, 1970; Kotzan & Evanson, 1969), music (Smith & Curnow, 1966), and layout (Granbois, 1968). Subsequently, the study of shopping atmosphere has grown encompassing all the environmental cues that surround shoppers and influence their behavior.

Given the diversity of sensory cues, some typologies of atmospherics were proposed (Berman & Evans, 1995; Bitner, 1992). Turley and Milliman (2000, p. 194) developed a systematic classification of atmospherics “to consolidate the knowledge gained in this area and to encourage additional research” based on a review of experimental evidence. This classification includes five categories: external variables; general interior variables (GIV); layout and design variables; point-of-purchase, and decoration variables; and human variables. Turley and Milliman (2000) emphasize the need for macro-level research on the effect of the entire atmosphere on consumer behavior. In fact, although there are several studies addressing specific atmosphere factors (El-Adly & Eid, 2016; Garaus, Wagner, & Kummer, 2015; Mohan et al., 2013; Sachdeva & Goel, 2015), to the best of the authors’ knowledge, there are no studies looking simultaneously at the whole set of factors. The typology of Turley and Milliman (2000) constitutes the most comprehensive classification of atmosphere factors and provides an advanced guide for empirical studies examining the effect of each category. Using this classification will help strengthen and develop consumer behavior theory in this area and lead to more comprehensive theoretical and managerial implications. Furthermore, it will allow retailers to have a more adequate and comprehensive approach to differentiate their retail environment from competitors.

We focus on GIV for several reasons. First, the importance of these variables has been confirmed over the retailing research history, however, studies adopting a comprehensive and complete view of GIV are lacking, and most related research did not consider the integrated impact of these variables. Second, GIV surround consumers while they are in the shopping venue, during the actual shopping visit, and have a key role in influencing consumers’ mood and experience. Moreover, GIV have an impact on consumers’ behavior even if they are not consciously aware of them (D’Astous, 2000; Jani & Han, 2015; Milliman, 1982; Turley & Bolton, 1999). Hence, understanding these “controllable” and “easy to be manipulated” interior factors, may provide effective tools for enhancing the shopping experience. Finally, there is a lack of studies that investigate the role played by some GIV, for example, flooring (Chebat & Morrin, 2007) and physical characteristics (Singh, 2006).

Our study is set on shopping malls which are privileged locations for studies aiming at understanding the role of GIV on shoppers for several reasons. Shopping malls, as main formats within retail agglomerations, have become a part of our global culture, dominating

the social life of a large part of the population (Calvo-Porrá & Lévy-Mangín, 2018; Kesari & Atulkar, 2016; Rahman et al., 2016; Warnaby & Medway, 2018), and shoppers spend more shopping time in malls, subsequently, they are subject to GIV effects for a longer time; staying for more time in malls is associated with shoppers' perceptions of the mall atmospherics (El-Adly & Eid, 2016).

Despite the importance of the emotional side of the shopper (Alnawas & Hemsley-Brown, 2018; Das & Varshneya, 2017; Jang & Namkung, 2009; Ou & Verhoef, 2017; Silva, Hausen, & Higgins, 2019), there is a dearth of studies addressing the mediating role of shopper emotional states in the impact of atmospherics on some shopping outcomes, in particular in the desire to stay in the shopping area. Moreover, there is a need for studies that understand how emotions can be influenced by atmospherics, and how they predict different consumer behavior outcomes. Understanding the role played by emotions helps mall developers in providing enjoyable shopping experiences.

Finally, although some research outcomes such as satisfaction have been widely studied, relevant behavioral responses such as the desire to stay at the mall are less studied. Thus, our contribution derives from studying simultaneously the impact of a systematic listing of GIV on behavioral outcomes, including the desire to stay at the mall, while considering the mediation of emotions.

Hence, following this introduction, this paper is organized into three major sections. First, based on prior research, we discuss the theoretical underpinnings and hypotheses that form our model. Second, we describe the methodological approach. Lastly, findings and managerial implications are discussed.

## **5.2. Theoretical background**

This study is guided by the S-O-R paradigm (Mehrabian & Russell, 1974) which depicts behavior responses (R) as the result of influences that stimulate (S) the individual (O). This model has been used extensively for studying the effect of atmospherics (S) on different responses in retail settings, including shopping satisfaction, which has been found to predict behavioral outcomes such as loyalty, purchase and patronage intentions (Alavi et al., 2016; Atulkar & Kesari, 2017; Bassi, 2018; El-Adly & Eid, 2016; Ettis, 2017).

A less studied outcome is the desire to stay at the shopping mall. Malls are places to socialize, not only to shop, and staying more time in the shopping mall is an indicator of successfulness (Das & Varshneya, 2017; Donovan et al., 1994; Milliman, 1986; Wakefield & Baker, 1998). Moreover, time spent at shopping areas influences re-patronage intention and purchase (Helmefalk & Hultén, 2017; Stoel et al., 2004), and higher amounts of money spent are associated with longer stays (Lueg et al., 2006; Morrison et al., 2011).

### **5.2.1. Atmospherics**

Retail atmospherics has been always an active area of retailing studies. Under the title “What is an atmosphere?”, Kotler (1973, p. 50) states “Atmosphere is always present as a quality of the surrounding space. It is apprehended through the senses.” The fact that atmospherics includes everything surrounding shoppers that can be perceived by their senses makes it an all-encompassing factor including a diversity of variables. The broadness of this factor leads to two types of research: research looking at the atmosphere as a whole and studies focusing on specific variables. The first type examined the role played by the atmosphere in general on different outcomes of consumer behavior. In service settings, Bitner (1992) discusses how physical surroundings and environmental dimensions influence customers’ and employees’ behavior. In the same vein, Sharma and Stafford (2000) find that store atmospherics positively influence customers’ perceptions of salespeople as well as customer persuasion. Grewal, Baker, Levy, and Voss (2003) find that good store atmosphere makes customers more likely to shop and recommend a store. In an investigation of four mall formats, Teller (2008) finds that the tenant mix and atmosphere influence satisfaction and patronage intention the most. Similarly, Aina, Jalil, Fikry, and Zainuddin (2016) discuss the effect of atmospherics on satisfaction and behavioral intention while other studies found support for the effect of environment on mall value and satisfaction (El-Adly & Eid, 2016), and of store environment on store patronage behavior (Baker, Parasuraman, Grewal, & Voss, 2002; Seock, 2009). Other research also indicates the impact of atmospherics on impulse buying (Mohan et al., 2013), hedonic and utilitarian evaluations of retail shopping value (Rayburn & Voss, 2013), shoppers’ excitement, and desire to stay at a mall (Wakefield & Baker, 1998). However, although several studies attempted to examine the retailing atmosphere as a whole, scales used to measure this factor differ widely, and do not really cover all the atmospheric variables

(Biswas, Labrecque, Lehmann, & Markos, 2014; Bustamante & Rubio, 2017; Chang et al., 2011; Garaus, 2017; Garaus et al., 2015; Grewal et al., 2003; Im & Ha, 2011; Kaltcheva, Patino, & Chebat, 2011; Koo & Kim, 2013; Kumar & Kim, 2014; Mohan et al., 2013; Seock, 2009; Sharma & Stafford, 2000; Sherman et al., 1997; Sit et al., 2003; Teller, 2008; Vega-Vázquez et al., 2017; Wakefield & Baker, 1998).

The second type focuses on specific variables, to reduce the complexity, and/or to have an isolated understanding of each variable. Notably, a long list of attributes has been researched, including layout and store design (Ainsworth & Foster, 2017; Murray, Elms, & Teller, 2017; Smith & Burns, 1996; Van Oel & Van den Berkhof, 2013; Wardono, Hibino, & Koyama, 2012), shelf space, and display (Adam, Jensen, Sommer, & Hansen, 2017; Daunfeldt & Rudholm, 2014; Jain, Takayanagi, & Malthouse, 2014; Murray, Talukdar, & Gosavi, 2010; Oh & Petrie, 2012). Although this approach allows for the in-depth inquiry of specific atmospheric cues, environment is by nature multidimensional and is perceived holistically by consumers: “store atmospherics cannot really be understood on a sense-by-sense basis; environments, and our perception of them are, by nature, multisensory” (Spence, Puccinelli, Grewal, & Roggeveen, 2014, p. 472).

### **5.2.2. Shoppers' emotional states**

Research has shown the effects of shopper emotional states (Allard et al., 2009; Alnawas & Hemsley-Brown, 2018; Baker et al., 1992; Das & Varshneya, 2017; Jang & Namkung, 2009; Ou & Verhoef, 2017; Silva et al., 2019; Yüksel, 2007). Donovan and Rossiter (1982) found pleasure and arousal to be significant mediators between store atmosphere and consumer behavior. These emotional states were also studied as mediators between retail atmospheric factors and willingness to buy (Baker et al., 1992). Furthermore, several studies find significant mediating roles of emotional states between different indicators and satisfaction (Dawson et al., 1990; Eroglu et al., 2003; Im & Ha, 2011; Machleit & Mantel, 2001). In addition, Sherman et al. (1997) discuss the mediating role of pleasure and arousal in the relation between store environment and various dimensions of purchase behavior such as liking, the number of items bought, money spent, and time spent. Allard et al. (2009) find that negative emotions mediate the relation between place attachment, perceived differentiation and the general attitude in shopping malls; while positive emotions mediate the relation between hedonic value, perceived differentiation and the general

attitude. The mediating role of shoppers' emotions has also been studied in other research (Chang et al., 2011; Eroglu et al., 2005; Jang & Namkung, 2009; Koo & Kim, 2013). However, no studies considering shoppers' emotional states when focusing specifically on the GIV were found.

### **5.2.3. Atmospherics' general interior variables**

Turley and Milliman (2000) provide an extensive classification of GIV, including a total of 14 variables. We use this classification as a framework for the operationalization of atmospherics. Each of these variables is discussed below. Three variables have not been included: tobacco smoke, the width of aisles, and merchandise. The first variable has been disregarded since smoking is forbidden by law in Portuguese shopping malls, the other two variables were deemed more applicable in a store setting rather than in the shopping mall context.

Based on the literature on the effect of atmospheric cues in shopper behavior, the general hypotheses of this study are the following:

*H1:* Positive attitudes towards shopping mall GIV have a positive effect on shopper behavior.

*H2:* Emotional states mediate the relationship between positive attitudes towards shopping mall GIV and shopper behavior.

Below, we discuss how each atmospheric cue affects shopper behavior.

#### ***5.2.3.1: Flooring and carpeting***

Although there are some studies about flooring- and carpeting-related aspects, for example, flooring color (Chebat & Morrin, 2007; Keng et al., 2007), scarce attention has been given to the style and the comfort of the retailing area flooring (D'Astous, 2000; Keng et al., 2007; Mohd Ali, 2013). However, it is worth mentioning that a few studies consider the need for improving the flooring of different facilities including shopping malls to suit persons with disabilities; Swaine et al. (2014) refer to the importance of using tactile strips and anti-glare flooring to facilitate the use of shopping malls by persons with disabilities. Bashiti and Rahim (2016) indicate the need to having ramps with signage between the different floor levels for wheelchair users and people with limited walking abilities. In the same vein, Hashim et al. (2012) discuss the need to fix signs warning people when there is any change

of floor level, they also indicate the importance of having convenient flooring design with no floor drops or ramps in the disabled toilets. These studies point to the fact that flooring is indeed relevant to influence shopping behavior for specific segments, however, it is expected that this impact is valid across consumers. Therefore, the following hypotheses are proposed:

*H1a:* Positive attitudes towards shopping mall's flooring and carpeting have a positive effect on shopper behavior.

*H2a:* Emotional states mediate the relationship between positive attitudes towards shopping mall flooring and carpeting and shopper behavior.

### *5.2.3.2: Color schemes*

Different aspects of how color is relevant in retail contexts have been studied. Besides differentiating products from competitors, color influences consumers' expectations about the store's characteristics (Lowrey, 2012). Bellizzi, Crowley, and Hasty (1983) indicate that color has been used by retailers to project an image or to create an atmosphere, it is used to attract customers in retail store design, as well as in package design. In retail settings, early research has privileged the role of color in advertising and packing (Gorn, Chattopadhyay, Yi, & Dahl, 1997; Hattwick, 1950; Luckiesh, 1923; McNeal, 1973; Starch, 1923; Warden & Flynn, 1926). Thereafter, marketing research looked at color as an atmospheric variable influence consumers' moods, feelings, and attitude.

Extant research reports human behavior in response to color on the physiological and psychological level. Generally, warm colors (red and yellow) have produced different physiological and psychological effects comparing to cool/cold colors (blue and green), which are opposite on the color spectrum (Bellizzi & Hite, 1992). Physically, warm colors are stimulating, while cool colors are more relaxing (Bellizzi et al., 1983), whereas, psychologically, despite there are some individual and cultural differences, the emotional response to color has been found to be quite consistent. "Many psychologists believe that people are either warm-color-dominant (for example, red, and yellow) or cold-color-dominant (for example, blue, and green)" (Bellizzi et al., 1983, p. 24). Schaie and Heiss (1964) report the high wavelength colors (red, orange, and yellow) induce elated mood states. However, further studies discuss the emotional characteristics of colors, mainly, short wavelength versus the long wavelength colors (Bellizzi et al., 1983; Chebat & Morrin,

2007; Singh, 2006; Varely, 1980). Roschk et al. (2017, p. 230) state “Psychologically, warm colors (especially red) are seen as emotionally arousing, exciting, and distracting, while cool colors (especially blue) are linked to feelings of relaxation, peacefulness, calmness, and pleasantness”. Further, different colors like red and blue have been studied to see how they could differently influence different outcomes. Positive retail outcomes such as simulated purchases, fewer purchase postponements, and a stronger inclination to shop and browse occurred in blue rather than red environments (Bellizzi & Hite, 1992; Crowley, 1993). Similarly, Babin, Hardesty, and Suter (2003) examine the effect of various color, lighting, and price point combinations on consumer behavior in fashion-oriented stores. Comparing to orange interiors, results indicate blue interiors are associated with more favorable evaluations, higher store patronage intentions, and higher purchase intentions, however, the authors indicate that orange color might produce favorable results in conjunction with lighting. Considering cultural differences, Chebat and Morrin (2007) explore mall décor colors’ effects on shopper perceptions. French-Canadians and Anglo-Canadians had different perceptions of product quality when the mall exhibited a warm color or a cool color décor. Moreover, Yildirim, Akalin-Baskaya, and Hidayetoglu (2007) examine the impact of indoor color use, gender, and age on mood and cognitive performance. Findings indicate violet interiors are more positively perceived when compared to yellow. Also, compared to older customers, young customers had a more positive tendency towards the perception of atmospheric attributes, including the color of store interiors. Finally, Singh (2006) suggests that sales can be directly affected by packaging and store wall colors, moreover, the author advises retailers to choose colors for products and interior decoration depending upon their target audience (gender-specific stores, kids store, etc.). However, no research has focused on the impact of color on retailing responses such as the desire to stay at the mall. In this research, based on the impact of color on different retail outcomes just reported, we expect that color, as other atmospherics, can influence the desire to stay at the mall along with shopper satisfaction. This relation could be significant also when considering the presence of emotions as a mediator, especially that color shows in the previous studies that it influences feelings and moods (Roschk et al., 2017; Yildirim et al., 2007). Based on the above, the following hypotheses are proposed:

*H1b:* Positive attitudes towards shopping mall color schemes have a positive effect on shopper behavior.

*H2b:* Emotional states mediate the relationship between positive attitudes towards shopping mall color schemes and shopper behavior.

#### *5.2.3.3: Lighting*

Despite the fact that lighting has been examined more in organizational behavior studies (e.g. Baron, Rea, & Daniels, 1992; Gifford, 1988), this factor has been also well-recognized in consumer behavior literature, and many authors study this variable in retailing settings. "Retail environments frequented by those aging boomers better have great lighting and brighter colors to make their customers feel younger or at least not be reminded of their aging eyes" (Lowrey, 2012, p. 92). Lighting in shopping malls includes outdoor as well as indoor lighting. Outdoor lighting gives a good impression about the mall at night; Narisada and Schreuder (2004, p. 55) state "if the outdoor areas of the shopping mall at night are well-lit, the general atmosphere of the mall will become much more fascinating and enjoyable than in daytime". However, indoor lighting is more related to the mall atmosphere.

Several retailing studies investigate the common effect of color and lighting. Lowrey (2012, p. 92) states "At the store level, the colors and the lighting used are crucial to forming the consumer's expectations about the store's characteristics because light affects how color is perceived". In this vein, Babin et al. (2003) suggest that lighting and color combinations affect consumers' cognitive representation and effective reaction; the authors indicate the use of soft lights decreases ill effects of an orange interior and produces the highest level of perceived price fairness. Findings also suggest that the effects of lights on behavioral intentions are mediated by the cognitive and affective reactions they create. Furthermore, Tantanatewin and Inkarojrit (2016) discuss the use of the combination of lights and colors as an important technique in retail design. Findings emphasize that spaces with warm color tone and colored-light receive a higher positive score of impression and identity. In the other hand, Baker et al. (1992) discuss how ambient cues, represented by lighting and music this time, integrate with the social cues to impact arousal in the store environment.

Another stream of retailing research has isolated lighting from other environmental cues and studies it independently. Wardono et al. (2012) explore the impact of colors, lighting,

and décor on customers' perceived sociability, emotion and behavioral intention on social dining occasions. Results indicate the positive effects of dim lighting on romantic dining. In two independently-owned stores, Summers and Hebert (2001) find consumer behavior to be positively affected by supplemental lighting treatments, also results indicate the significant relationship between lighting and display. Another field study involving 57 clothing stores reveals that lighting attributes (eg. brightness, contrast, glare, and sparkle) are related to the perceived atmosphere. Authors also emphasize the important role played by lighting in evoking atmosphere (Custers, de Kort, IJsselsteijn, & de Kruiff, 2010). In the same context of fashion retail stores, Schielke and Leudesdorff (2015) discuss the impact of lighting on the brand classification with regard to the factors of social status. In grocery and supermarket context, Nagyová, Berčík, and Horská (2014) indicate that lighting can play a role in drawing customer's attention to a specific part of the sales area and achieve the overall harmonization in the store, and Quartier, Vanrie, and Van Cleempoel (2014) find that realistic lighting settings can influence the perceived atmosphere and experienced emotions. Finally, in a mall context, Wakefield and Baker (1998) find that lighting and temperature are the only ambient factors that are not associated either to excitement or to the desire to stay at the mall. The authors justify this based on the finding of Baker's (1986) study which indicates that lighting and temperature are environmental elements which are not noticed by the consumer unless they are insufficient, i.e. are present with unsatisfactory levels. The presence of those two factors in a negative way may cause negative outcomes. Hence, although lighting is an atmospheric variable which has been studied more in the context of stores than in shopping malls, it is expected that lighting effects will be prevalent also in this context. Hence, the following is proposed:

*H1c:* Positive attitudes towards shopping mall lighting has have a positive effect on shopper behavior.

*H2c:* Emotional states mediate the relationship between positive attitudes towards shopping mall lighting and shopper behavior.

#### *5.2.3.4: Music*

Music may be one of the least expensive techniques to enhance shopper perceptions: Grewal et al. (2003, p. 265) state "It is less expensive to pipe appropriate music into a store to entertain and distract than it is to hire more service people". Hence, "music offers

a flexible tool that easily can be tailored to the shopping context” (Roschk et al., 2017, p. 236).

The effect of music has been studied in an early stage of retailing research. An early article focuses on the effects of music on purchasing behavior. Findings suggest that although time in the store would be reduced, sales and reported satisfaction would be unaffected by loud music (Smith & Curnow, 1966). Burleson (1979) surveyed 52 managers of diverse retail stores and found that music has a positive effect on customers' mood and purchase. In the same study, 560 customers have been surveyed also, results indicate a positive effect of music on purchase and possible purchase. Linsen (1975) found that people prefer music playing in the background of the supermarkets while they are shopping, and they think playing music is a sign that the store's management cares about customers. The 200 surveyed customers in this study believed that they would spend more time in a store with background music. Similarly, while comparing background and foreground music effects on clothing store shoppers, Yalch and Spangenberg (1990) demonstrate that customers' perceptions of their shopping time varied with the type of music, depending on their age. Also, Milliman (1982) found that music tempo variations can significantly affect the pace of in-store traffic flow and dollar sales volume. In restaurants setting, Milliman (1986) demonstrated also that background music can significantly affect the behavior of restaurant customers like purchases, as well as length of stay.

Moreover, retailing literature shows increasing attention being given to the role of music over the last two decades; a 2x2 factorial experiment with 72 participants reveals that individuals reported themselves as shopping longer when exposed to familiar music but actually shopped longer when exposed to unfamiliar music. Shorter actual shopping times in the familiar music condition were related to increased arousal (Yalch & Spangenberg, 2000). Another experiment study found that consumers rated the environment more positive, exhibited higher levels of approach and impulse buying behaviors, and experienced enhanced satisfaction when ambient scent and music were congruent with each other in terms of their arousing qualities (Mattila & Wirtz, 2001). Another double atmospheric variables evaluation revealed that the volume of music and the presence of a vanilla aroma impacted shoppers' emotions and satisfaction levels. Findings also show that the arousal induced by music and aroma increased pleasure levels, which in turn influenced positively shopper behaviors, including time and money spent, approach behavior, and satisfaction

with the shopping experience (Morrison et al., 2011). Furthermore, Cameron, Baker, Peterson, and Braunsberger (2003) discuss the influence of music on mood, which, in turn, influences overall experience' evaluation. In the same vein, Roschk et al. (2017) discuss the positive effects of music on pleasure, satisfaction, and behavioral intentions, and Grewal et al. (2003) demonstrate the effect of classical music on store atmosphere evaluations. Research has revealed more outcomes of consumer behavior influenced by music such as the intention to return and total amount spent (Harrington, Ottenbacher, & Treuter, 2015), product choice (North, Sheridan, & Areni, 2016), and impulsive buying (Chebat & Morrin, 2005). Michel, Baumann, and Gayer (2017) provide a systematic literature review of in-store music and its impact on customers' behaviors. Although the study finds some conflicting previous results, the authors conclude music to be a worthwhile technique if used properly, and they encouraged more research to reach a better understanding of this factor. Thus, the following is proposed:

*H1d:* Positive attitudes towards shopping mall music have a positive effect on shopper behavior.

*H2d:* Emotional states mediate the relationship between positive attitudes towards shopping mall music and shopper behavior.

#### *5.2.3.5: Scent*

The ambient scent is another inexpensive technique which may be used by retailers to attract shoppers (Chebat & Michon, 2003). In the last century, retailing research has devoted considerable attention to this factor (Bone & Ellen, 1999; Bone & Jantrania, 1992; Lorig & Schwartz, 1988; Lorig, Schwartz, Herman, & Lane, 1988; Milliman, 1986; Mitchell, Kahn, & Knasko, 1995; Spangenberg, Crowley, & Henderson, 1996), and several recent studies indicate the importance of the olfactory dimension of the atmosphere as a tool that enhances shoppers' perceptions and experience, and positively influences their in-store behavior (Büttner, 2017; Doucé & Janssens, 2013; Doucé, Poels, Janssens, & De Backer, 2013; Rajagopal & Castano, 2015). However, Hultén (2015, p. 287) states "for marketers, a scent should not be introduced without a correlation with the experience that the actual service environment will give to customers", and he provides a table showing how different scents are believed to stimulate people's moods and actual behaviors (Table 18).

**Table 18.** Examples of the impact of different scents

Scent	Impact
Citrus	Can improve mood and cognitive performance
Mint	Reduces stress and increase mental concentration
Vanilla	One of the most attractive scents for increasing comfort and reducing stress
Lavender	Has a relaxing effect and eases anxiety and insomnia

**Source:** (Hultén, 2015, p. 287).

Several studies focus on the impact of scent on brands. Morrin and Ratneshwar (2000) find the presence of a pleasant ambient scent to improve brand evaluations, especially for unfamiliar brands. A pleasant ambient scent also improved recalling unfamiliar, but not familiar, brand names. Another study indicated that ambient scent did not influence self-assessed mood or arousal levels, but it increased the attention in terms of longer stimulus viewing times (Morrin & Ratneshwar, 2003). Another group of studies investigated the joint effect of ambient scent and music; using stimuli associated with the Christmas holiday season. Spangenberg, Grohmann, and Sprott (2005) explored the joint effects of ambient scent and music on consumers' evaluations of a store, its environment and offered merchandise. Findings indicate consumers' evaluations were more favorable when Christmas scent concurred with Christmas music. In the same vein, Mattila and Wirtz (2001) indicate that when ambient scent and music are congruent with each other in terms of their arousing qualities, consumers rate the environment significantly more positively, exhibit higher levels of approach and impulse buying behaviors, and experience enhanced satisfaction. Further, Morrison et al. (2011) demonstrate that the volume of music and the presence of a vanilla aroma has significant effects on shoppers' emotions and satisfaction levels.

More scent-related research has been done in store setting, and several studies indicate the effect of the olfactory cues on consumers' mood (Chebat & Michon, 2003; Goldkuhl & Styvén, 2007; Michon, Chebat, & Turley, 2005; Roschk et al., 2017). Lunardo (2012) suggests that environmental characteristics represented by ambient odors can influence consumer skepticism, and in turn, emotional and attitudinal responses. In the same vein,

a field experiment revealed that the presence of a pleasant ambient scent in the store positively influenced all of the studied variables: pleasure, arousal, evaluation of the store environment, evaluation of the products, and intention to revisit the store (Doucé & Janssens, 2013).

In addition to mood and emotions, research reveals the effect of scent on several behavioral responses. It should be noted that the impact of scent seems to be contingent on scent congruity. An experimental study demonstrated scent congruity to influence perceptions of the store, its merchandise, and actual sales (Spangenberg, Sprott, Grohmann, & Tracy, 2006). Parsons (2009) warns about using pleasant but non-associated scent which can lead to negative affective or behavioral responses. This study shows that the scent needs to be perceived as associated with the store-type in order to lead to positive responses. Similarly, another study indicates the importance of the association between ambient scent and neatness of the store; when diffused in a messy store, a pleasant ambient scent has a negative effect on consumers' product evaluation, because of a mismatch between the pleasant scent and the unpleasant messy layout (Doucé, Janssens, Swinnen, & Van Cleempoel, 2014). A field study on 201 participants showed that a chocolate scent positively influenced general approach behavior in a bookstore (Doucé et al., 2013). Also, Leenders, Smidts, and El Haji (2019) found that scent had a significant positive effect on shopper's store evaluations, time spent in store and store-level sales. Thus:

*H1e:* Positive attitudes towards shopping mall scent has have a positive effect on shopper behavior.

*H2e:* Emotional states mediate the relationship between positive attitudes towards shopping mall scent and shopper behavior.

#### *5.2.3.6: Temperature*

Fewer retailing studies examine the role of the shopping area's temperature (Im & Ha, 2011). In its normal setting, this factor does not seem to have a significant effect on consumer behavior as consumers may not notice temperature when it is set at an appropriate level (Andrus, 1986; Wakefield & Baker, 1998). Moreover, Wakefield and Baker (1998) indicate that temperature is an environmental element that is not noticed by the consumer unless it exists at unpleasant levels. The presence of this variable in a negative way may cause negative results. However, the lack of studies that consider this factor

encourages more research. Based on the general impact of atmospherics on shopper behavior (Ballantine, Parsons, & Comeskey, 2015; Spence et al., 2014), it is expected that:

*H1f:* Positive attitudes towards shopping mall temperature have a positive effect on shopper behavior.

*H2f:* Emotional states mediate the relationship between positive attitudes towards shopping mall temperature and shopper behavior.

#### *5.2.3.7: Cleanliness*

Ambient characteristics, as clean, pleasant, and relaxing environment are important in influencing consumers' emotional and behavioral responses (Bitner, 1992). Lumpkin et al. (1986) found cleanliness to be the most important factor for deciding where to shop. Moreover, several studies discuss the importance of this factor at the retailing level (Anselmsson, 2006; Cronin et al., 2000). Vega-Vázquez et al. (2017) indicate the effect of store cleanliness on shoppers' satisfaction. In the same vein, Dawson et al. (1990) divide satisfaction into product satisfaction and facility satisfaction and indicate cleanliness as one of the facility satisfaction attributes. De Juan (2004) discusses the consumers' attraction to shopping malls and finds cleanliness as one of the pull factors. Furthermore, Chang et al. (2011) show that consumers tend to have more positive emotional responses when they perceive a clean and bright store. Therefore, the following hypotheses are proposed:

*H1g:* Positive attitudes towards shopping mall cleanliness have a positive effect on shopper behavior.

*H2g:* Emotional states mediate the relationship between positive attitudes towards shopping mall cleanliness and shopper behavior.

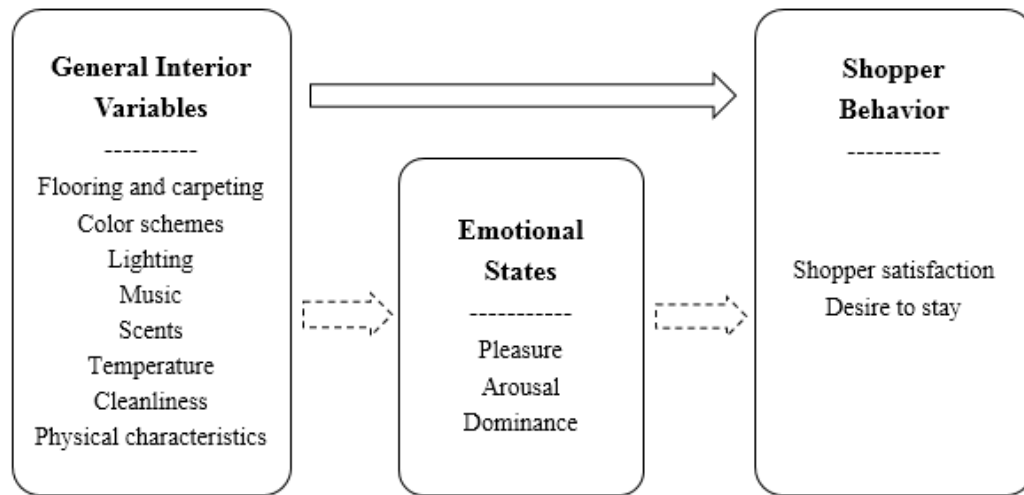
#### *5.2.3.8: Physical characteristics*

There is a lack of research considering the potential role of the shopping area physical characteristics on consumer behavior. Very few studies focus on related information, like the importance of store wall colors (Singh, 2006). Under this factor, four GIVs are combined to examine if they have any influence on the considered outcomes and if they have to be given more attention when forming the adequate atmosphere formula. These four factors are the use of public areas in the shopping mall, ceiling composition, wall composition, and paint and wallpaper.

*H1h*: Positive attitudes towards shopping mall physical characteristics has have a positive effect on shopper behavior.

*H2h*: Emotional states mediate the relationship between positive attitudes towards shopping mall physical characteristics and shopper behavior.

Finally, the proposed hypotheses can be summed up by the research model (Figure 6).



**Figure 6.** Research model of study 3

## 5.3. Method

### 5.3.1. Data collection

In order to test the proposed model, an online survey of mall shoppers was conducted. Existing scales were adapted to measure shopping mall GIV (Ainsworth & Foster, 2017; Wakefield & Baker, 1998). In terms of emotions, the study uses the PAD scale (Mehrabian & Russell, 1974) which proved to be a robust scale for shopper emotions. This scale has been widely employed for evaluating emotions in various marketing and consumer research contexts (Babin & Darden, 1995; Im & Ha, 2011; Mazaheri, Richard, Laroche, & Ueltschy, 2014; Sherman et al., 1997). The scale is composed of pleasure (6 items), arousal (5 items), and dominance (5 items). Finally, existing scales in the relevant literature were adapted to measure the two dependent factors: satisfaction (Kwon et al., 2016; Teller, 2008), and desire to stay at the mall (Wakefield & Baker, 1998). All indicators and outcome factors were measured on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree), while emotional states were measured on a 5-point semantic differential scale (ex. unaroused - aroused).

The questionnaire of the study was reviewed by two consumer behavior researchers and pretested in order to ensure that it had no comprehension issues, confusing points, or uncomfortable questions. Subjects of the pretest included 11 volunteers with prior shopping experience in the studied shopping malls. Shoppers of different ages were sampled at four major shopping malls located in two cities in Portugal; the malls are recognized as local top shopping destinations, and shoppers who did not shop regularly in any of the studied malls were excluded from the study.

## **5.4. Results**

The final sample size was 484. Sample demographics show that 58.3% are female participants, 44.2% of the sample are married or in a domestic partnership, and around half of the participants are between 31 and 50 years of age. Finally, 75.7% of the respondents have a college, college graduate, or postgraduate education.

In order to test the model and the proposed hypotheses, first, the measures were refined using a number of analyses, and the model fit was tested by confirmatory factor analysis (CFA). Then, the structural equation modeling of path analysis, SEM, was examined.

### **5.4.1. Assessment of the measurement model**

CFA with the original items resulted in a satisfactory fit. However, to correspond to the thresholds recommended by Schreiber, Nora, Stage, Barlow, and Jamoe (2006), a series of purification processes were operated based on theoretical considerations and diagnostic cues. As a result, five indicators were removed: one for color schemes, one for physical characteristics, and three for arousal. These purification processes led to an acceptable model fit:  $\chi^2 = 1062.970$ ,  $df = 587$ ,  $\chi^2/df = 1.811$ , CFI=0.961, TLI=0.953, IFI=0.961, RMR=0.024, SRMR=0.0338, RMSEA=0.041 [90% CI=0.037; 0.045]. A reliability analysis was carried out on the 38 remaining indicators. Cronbach's  $\alpha$  varying from 0.847 to 0.872, and composite reliability scores ranging from 0.662 to 0.889 provide evidence for the internal reliability of each scale. Furthermore, the Average Variance Extracted (AVE) was above the minimum cutoff of 0.5 for all factors except for the color schemes. However, the deviation from the cutoff value is very low (0.0056), and the related composite reliability for this factor is higher than 0.6. Hence, relying on composite reliability is an acceptable compensatory technique (Fornell & Larcker, 1981; Hair et al., 2014) (Table 19).

#### 5.4.2. Assessment of the structural model

Our proposed hypotheses are tested using the structural model. Regarding the direct hypotheses, regression weights (Table 20) show mixed results for the effect of GIV. Specifically, positive attitudes towards color schemes impact significantly on both shopper satisfaction and the desire to stay at the mall (H1b). Positive attitudes towards lighting has a significant impact on satisfaction (H1c); positive attitudes towards scent (H1e) and temperature (H1f) impact on the desire to stay at the mall. However, positive attitudes towards flooring and carpeting (H1a); music (H1d); cleanliness (H1g) and physical characteristics (H1h) have no significant effect on either outcome. Hence, overall H1 is partially supported as positive attitudes towards color and lighting have a direct effect on satisfaction, while positive attitudes towards color, scent, and temperature affect the desire to stay at the shopping mall.

**Table 19.** Item loading, Cronbach's  $\alpha$  values, AVE and composite reliability (Study 3)

Factor	Item Loading	Cronbach's $\alpha$	AVE	Composite Reliability
<b>Flooring and carpeting</b>		0.853	0.64	0.777
FLC1: I like the flooring style of this shopping mall	0.79			
FLC2: This malls' flooring and carpeting are comfortable	0.80			
<b>Color schemes</b>		0.847	0.49	0.662
CLR2: The colors in this mall make me feel good	0.68			
CLR3: I really like this mall's use of color	0.72			
<b>Lighting</b>		0.851	0.63	0.835
LGT1: The mall lighting is appropriate	0.83			
LGT2: I like the lighting in this mall	0.82			
LGT3: The lighting in this mall makes me feel good	0.72			
<b>Music</b>		0.856	0.72	0.883
MUS1: I like the music played in this mall	0.88			
MUS2: The played music in this mall makes me feel good	0.85			

Factor	Item Loading	Cronbach's $\alpha$	AVE	Composite Reliability
MUS3: This mall music is played at an appropriate volume	0.81			
<b>Scent</b>		0.854	0.70	0.822
SCT1: I like the scent in this mall	0.85			
SCT2: The scent in this mall makes me feel good	0.82			
<b>Temperature</b>		0.860	0.76	0.860
TMP1: The temperature in this mall is comfortable	0.89			
TMP2: The temperature of this mall makes me feel good	0.85			
<b>Cleanliness</b>		0.860	0.75	0.855
CLN1: I really find this mall clean	0.86			
CLN2: The cleanliness level of this mall makes me feel good	0.87			
<b>Physical characteristics</b>		0.853	0.63	0.837
PHC2: I like the type of walls in this mall	0.82			
PHC3: I like the paint and wall cladding in this mall	0.85			
PHC4: I like the type of ceiling in this mall	0.71			
<b>Pleasure</b>		0.847	0.55	0.880
PLR1: Annoying - Pleasing	0.72			
PLR2: Unhappy – Happy	0.76			
PLR3: Unsatisfied - Satisfied	0.72			
PLR4: Melancholic - Contented	0.76			
PLR5: Despairing - Hopeful	0.77			
PLR6: Bored – Relaxed	0.72			
<b>Arousal</b>		0.872	0.75	0.855
ARS1: Calm – Excited	0.89			
ARS2: Relaxed - Stimulated	0.84			
<b>Dominance</b>		0.865	0.57	0.866
DMN1: Care-for - In-control	0.73			

Factor	Item Loading	Cronbach's $\alpha$	AVE	Composite Reliability
DMN2: Influenced - Influential	0.74			
DMN3: Guided - Autonomous	0.73			
DMN4: Submissive - Dominant	0.81			
DMN5: Awed - Important	0.73			
<b>Shopper satisfaction</b>		0.850	0.67	0.889
STF1: I am satisfied with my decision to visit this sh. mall	0.83			
STF2: My choice to visit this shopping mall is a wise one	0.86			
STF3: This shopping mall meets my expectations	0.75			
STF4: I am sure it is the right thing to visit this shopping mall	0.82			
<b>The desire to stay at the mall</b>		0.855	0.78	0.785
DSR1: I like to stay at this mall as long as possible	0.81			
DSR2: I enjoy spending time at this mall	0.80			

Concerning the mediating role of emotional states, positive attitudes towards malls' flooring and carpeting, color, music, and physical characteristics show a significant effect on pleasure, while only the positive attitudes towards color and music significantly affect arousal. However, dominance is influenced only by positive attitudes towards music. Regarding the path between emotional states and shopper behavior outcomes, only pleasure has a significant effect on both outcomes, while arousal influences only the desire to stay at the mall. However, dominance shows no significant effect on any of the outcomes. Based on the above, hypotheses H2a, H2b, H2d, and H2h are partially supported, while H2c, H2e, H2f, and H2g are not. Thus, H2 is also partially supported, since the emotional states of pleasure and arousal mediate the relationship between some of the positive attitudes towards GIV and the studied shopper behavior outcomes. Specifically, positive attitudes towards color, lighting, scent, and temperature have some direct effects on the shopper behavior, while positive attitudes towards flooring and carpeting, color, music, and physical characteristics have indirect effects on this behavior through shopper emotions.

Table 20. Regression weights (Study 3)

	Estimate	S.E.	C.R.	P
Flooring and carpeting → Shopper satisfaction	0.003	0.081	0.042	0.966
Flooring and carpeting → The desire to stay at the mall	-0.130	0.114	-1.143	0.253
Color schemes → Shopper satisfaction	0.291	0.094	3.097	**
Color schemes → The desire to stay at the mall	0.259	0.131	1.979	*
Lighting → Shopper satisfaction	0.167	0.069	2.419	*
Lighting → The desire to stay at the mall	-0.018	0.097	-0.189	0.850
Music → Shopper satisfaction	-0.048	0.047	-1.032	0.302
Music → The desire to stay at the mall	0.039	0.066	0.585	0.559
Scent → Shopper satisfaction	-0.084	0.064	-1.298	0.194
Scent → The desire to stay at the mall	0.244	0.091	2.688	**
Temperature → Shopper satisfaction	-0.004	0.055	-0.075	0.940
Temperature → The desire to stay at the mall	0.197	0.077	2.543	*
Cleanliness → Shopper satisfaction	0.052	0.062	0.839	0.402
Cleanliness → The desire to stay at the mall	-0.072	0.087	-0.828	0.408
Physical characteristics → Shopper satisfaction	0.095	0.065	1.463	0.144
Physical characteristics → The desire to stay at the mall	0.088	0.091	0.973	0.330
Flooring and carpeting → Pleasure	0.154	0.064	2.404	*
Flooring and carpeting → Arousal	0.051	0.087	0.585	0.558
Flooring and carpeting → Dominance	0.136	0.078	1.728	0.084
Color schemes → Pleasure	0.207	0.071	2.916	**
Color schemes → Arousal	0.316	0.104	3.048	**
Color schemes → Dominance	-0.020	0.086	-0.235	0.815
Lighting → Pleasure	0.040	0.055	0.724	0.469
Lighting → Arousal	0.008	0.075	0.108	0.914
Lighting → Dominance	0.015	0.068	0.228	0.82
Music → Pleasure	0.147	0.036	4.109	**
Music → Arousal	0.113	0.050	2.259	*
Music → Dominance	0.152	0.044	3.441	**

	Estimate	S.E.	C.R.	P
Scent → Pleasure	0.012	0.051	0.226	0.821
Scent → Arousal	-0.133	0.071	-1.872	0.061
Scent → Dominance	0.019	0.063	0.302	0.762
Temperature → Pleasure	0.056	0.043	1.298	0.194
Temperature → Arousal	-0.080	0.060	-1.340	0.180
Temperature → Dominance	0.056	0.053	1.057	0.290
Cleanliness → Pleasure	0.039	0.049	0.800	0.424
Cleanliness → Arousal	-0.050	0.068	-0.745	0.456
Cleanliness → Dominance	-0.047	0.061	-0.775	0.438
Physical characteristics → Pleasure	0.120	0.051	2.341	*
Physical characteristics → Arousal	-0.004	0.070	-0.055	0.956
Physical characteristics → Dominance	0.054	0.063	0.857	0.391
Pleasure → Shopper Satisfaction	0.545	0.073	7.468	**
Arousal → Shopper Satisfaction	0.007	0.052	0.143	0.887
Dominance → Shopper Satisfaction	0.016	0.057	0.283	0.777
Pleasure → The desire to stay at the mall	0.560	0.100	5.582	**
Arousal → The desire to stay at the mall	0.264	0.074	3.574	**
Dominance → The desire to stay at the mall	0.002	0.080	0.027	0.978

\* P-Value < 0.05, \*\* P-Value <0.01

Color is the only variable that has a significant direct and indirect impact. In order to examine the indirect, direct and total effects of the positive attitudes towards this variable, the bootstrapping method is employed. Table 21 summarizes the results of the decomposition analysis for color effects on shopper satisfaction and the desire to stay. Specifically, the total effect of positive attitudes towards color schemes on shopper behavior is mediated by pleasure and arousal. Additionally, the analysis demonstrates that the direct effects of positive attitudes towards color schemes on both outcomes are higher than the indirect effects.

**Table 21.** Direct, indirect and total Effects (Study 3)

Predictor variables	Color			Pleasure			Arousal		
	Indirect Effect	Direct Effect	Total Effect	Indirect Effect	Direct Effect	Total Effect	Indirect Effect	Direct Effect	Total Effect
<b>Pleasure</b>	-	0.207**	0.207**	-	-	-	-	-	-
<b>Arousal</b>	-	0.316**	0.316**	-	-	-	-	-	-
<b>Satisfaction</b>	0.115	0.291	0.406**	-	0.545**	0.545**	-	0.007	0.007
<b>Desire to stay</b>	0.199	0.259	0.458**	-	0.560**	0.560**	-	0.264**	0.264**

Notes: Standardized path estimates are reported. \*\* P-Value < 0.01.

## 5.5. Discussion and conclusion

Although atmospherics are among the top recognized consumer behavior antecedents in the retailing literature, the study of this factor's variables is very fragmented. Turley and Milliman (2000) atmospherics typology provides a systematic categorization that can be followed as a guide for studying the retailing environment. This paper aims to test whether GIVs impact on mall shopper behavior, specifically satisfaction and desire to stay at the mall. Moreover, the study considers the mediating impact of shopper emotional states. Results partially support the two main proposed hypotheses, specifically H1, that posits that shopping mall GIV are positively related to shopper behavior and H2 that posits that emotional states mediate the relationship between shopping mall GIV and shopper behavior.

Regarding the direct impact, H1, results reveal that positive attitudes towards color schemes and lighting influence shopper satisfaction. Positive attitudes towards color schemes (.291) have a stronger effect than positive attitudes towards lighting (.167). These findings are in line with previous studies highlighting the effect of each variable (Chebat & Morrin, 2007; Nagyová et al., 2014), or the joint effect of them (Babin et al., 2003;

Tantanatewin & Inkarojrit, 2016; Wardono et al., 2012) on shopper behavior outcomes. Lowrey (2012) indicates colors and lighting contribute to forming the consumer's expectations about the store's characteristics. Moreover, our results validate the direct effect of positive attitudes towards color schemes (.259), scent (.244), and temperature (.197) on the desire to stay at the shopping mall. At any rate, to the best of the authors' knowledge, there is only one study (Wakefield & Baker, 1998) measuring the relationship between some atmospherics (positive perceptions of music, temperature, and lighting) and the desire to stay at the mall.

In terms of the mediating impact (H2), results confirm the importance of pleasure emotions (Dawson et al., 1990; Walsh et al., 2011; Yüksel, 2007). In fact, the mediating role of pleasure between positive attitudes towards flooring and carpeting, color, music, and physical characteristics and both outcomes is supported, while arousal mediates only the relationship between positive attitudes towards color, music, and the desire to stay at the mall. The mediation of dominance was not supported. Concerning pleasure, the findings of the current study are consistent with Im and Ha (2011) who find pleasure to be a mediator between ambient and variety on the one hand, and satisfaction on the other. This study's findings also align with Walsh, Shiu, Hassan, Michaelidou, and Beatty (2011) who indicate the mediating role of pleasure between music and aroma, on the one side, and store satisfaction and loyalty on the other. Moreover, Baker et al. (1992) point out that pleasure mediates the relationship between store environment, and the willingness to buy. Regarding arousal, our findings are in line with other studies (Baker et al., 1992; Dawson et al., 1990; Yüksel, 2007) which recognize the mediating role of this emotional state. Moreover, our findings are partly in line with Walsh et al. (2011) who found arousal mediates the relationship between music and store loyalty but also proved not to be a mediator when considering the relationship between aroma, and different outcomes, or between music and satisfaction. Finally, concerning dominance, it has not been studied extensively in a shopping context as several studies either do not include this factor (Dawson et al., 1990; Eroglu et al., 2003; Yüksel, 2007) or do not support its role as a significant mediator (Im & Ha, 2011). However, support for the significant role of dominance in a recent study (Elmashhara & Soares, 2019) encourages more related investigations for a better understanding of this factor.

To sum up, the results of our empirical study indicate a direct effect of the consumers' positive attitudes towards the GIV of color schemes, lighting, scent and temperature on shopper behavior. In addition, pleasure and arousal mediate this relationship for some of the consumers' positive attitudes towards GIVs: music, color, flooring and carpeting, and physical characteristics. One possible explanation for the differing impact of each GIV both in shopper outcomes and emotions may be related to how stimuli are processed. According to the Elaboration Likelihood Model (Cacioppo & Petty, 1984), there are two main routes to persuasion: the central route based on cognition which involves a thoughtful consideration process, and the peripheral route based on the use of simple cues, including affective mechanisms such as mood. Thus, it is possible that only some GIV affect behavior via emotions. Specifically in this study, we found that flooring and carpeting, color, music and physical characteristics have an impact mediated by pleasure; color and music have a mediated impact via arousal, while the impact of the remaining GIV, i.e. lighting, scent, temperature, and cleanliness, may follow the information processing route. This explanation has been advanced by Chebat and Morrin (2007) regarding the influence of color schemes and may be valid for more GIV, most of which had not been studied independently before.

#### **5.5.1. Theoretical contributions**

This study contributes to the retailing and consumer behavior literature in several ways. First, although atmospherics have received considerable attention in the area of retailing, most of the studies did not adopt a comprehensive approach, and many of the relevant factors have been neglected (Im & Ha, 2011; Koo & Kim, 2013; Mohan et al., 2013; Seock, 2009; Sit et al., 2003; Vega-Vázquez et al., 2017). This research contributes to the literature and extends it by using an extended scale of GIV derived from Turley and Milliman (2000)'s comprehensive list. The perspective adopted helps in understanding the shopping area environment as a whole, by understanding all of its elements. Second, this study adds to research about specific atmospheric variables' impact on behavioral responses, namely shopper satisfaction and, in particular, the far less studied desire to stay at the mall. Only a few atmospherics have been linked to this factor in previous research (Wakefield & Baker, 1998). However, we added to the contribution of the mentioned study by considering the

effect of positive attitudes towards flooring and carpeting, scent, cleanliness, and physical characteristics.

Finally, the research contributes to studies using the S-O-R model; explaining the relation between stimulus and response through organisms represented by consumer emotional responses (Baker et al., 1992; Baker et al., 2013; Chang et al., 2011; Dawson et al., 1990; De Nisco & Warnaby, 2014; Ettis, 2017; Kim et al., 2016; Koo & Kim, 2013; Sherman et al., 1997; Walsh et al., 2011). The current study fills a gap in research by revealing that pleasure mediates the relationship between the positive attitudes towards four atmospherics (flooring and carpeting, color, music, and physical characteristics) and both shopper satisfaction and the desire to stay at the mall. Moreover, arousal appears as a mediator between positive attitudes towards color, music, and the desire to stay at the mall. These results allow understanding the role played by each emotional state and demonstrate that different feelings can be enhanced by different GLV, and can generate different behavioral responses.

### **5.5.2. Managerial implications**

Although retailers are already aware of the importance of atmospherics, this study stresses the importance of considering all the variables surrounding shoppers during their shopping visit. Importantly, the current study demonstrates how different formulas of variables aligned with each other to influence different outcomes. Shopping malls aim to increase shopper satisfaction, also they want shoppers to stay longer at the mall. A combination of color and lighting directly increases satisfaction, hence malls can benefit from this combination by projecting decorative lighting on dark walls and spaces, or by providing 3D light shows on special occasions. Moreover, suitable color schemes, nice aroma, and a comfortable temperature boost the desire for a longer stay, and this may increase the probability of spending more money in shops or on provided recreational activities. Furthermore, considering the emotional states of the shopper can offer several directions for mall management to enhance the shopping experience of its customers. A mix of comfortable flooring, good walls, nice color, and suitable music increase the shopper's pleasure, which in turn, positively influences satisfaction and increases the desire to spend more time in the mall. Moreover, trying to trigger emotions like arousal by controlling color schemes and music could allow the management to use this emotion in increasing or

reducing the time spent by different consumer segments at the mall. For instance, and during some activities targeting older people, music which can be considered boring by younger age groups can be used to reduce mall congestion at the expense of untargeted age groups. It is also worth mentioning that this study shows that music can influence the emotion of dominance. This makes sense, in fact. Maybe with some motivational music, the feeling of dominance can be enhanced, and shoppers feel more in-control, influential, and important. Although the results do not reveal any impact of dominance on shopper satisfaction, nor on the desire to stay at the mall, a previous study by the authors suggested that dominance positively affects satisfaction.

Finally, a few variables demonstrate no significant effects. For instance, positive attitudes towards cleanliness do not significantly influence any of the studied emotional states, nor the shopper behavior outcomes. This result could be due to the fact that all of the four shopping malls are clean, which is visually noticed: only 2.1% of our sample considered that the malls are not clean, and only 4.7% did not agree that the cleanliness of the studied malls make them feel good. However, failing to meet the requirement will most probably negatively influence the shoppers' satisfaction. Based on that, the mall management should monitor this variable, and the same could be generalized to some other variables like temperature, and lighting in some situations.

### **5.5.3. Limitations and future research**

Despite large and diversified, our sample is not representative. Our study has also focused on specific malls in a specific geographic area, results might be different in other contexts. Moreover, this research focused on shopping malls. Although these constitute preeminent retail agglomerations, their unique characteristics do not allow us to generalize the results to other shopping areas like shopping streets, and historic town centers.

This study offers several directions for future research. First, the importance of most of the studied variables suggests that future research studying atmospherics on a macro level should rely on systematic scales measuring all the environmental cues. This will allow for a more accurate and comprehensive view of the shopping area environment. Second, further research also could explore the potential contribution of all GIV to other behavioral outcomes such as patronage intention, and word-of-mouth. Moreover, shopper characteristics such as age, and gender could be investigated also for their potential

moderating influence in the relationship between atmospherics and shopper behavior. In addition, dominance, which did not show a significant role in our model, could play a moderating role, and relationships could change for people who feel more or less dominant in the shopping area. Finally, this study empirically examined the role played by only one of the five categories listed in Turley and Milliman (2000)'s classification. Hence, there is a need to empirically examine the impact of the other four categories.

## Chapter 6

### GENERAL CONCLUSION

#### 6.1. Introduction

Consumer behavior research has shown that shopping can provide both hedonic and utilitarian values. Shopper behavior is affected by a large number of antecedents. However, some of these antecedents have a stronger effect on utilitarian shopping values, while others influence hedonic values more (Jones et al., 2006). In this thesis, we focus on factors that related specially with the hedonic and emotional side of the shopping experience. Based on that, we investigate the relationship between social interaction with salespeople, entertainment, and atmospherics general interior variables, on the one side, and shopper behavior outcomes on the other. At the same time, while investigating this relationship, we consider the mediating role played by shopper emotional states.

Following a quantitative approach, we conducted three empirical studies to operationalize the objectives of this thesis. A survey as a research strategy has been carried out in the three studies, with a sample size of 318 mall shoppers for the first study, and 484 mall shoppers for the second and third studies.

In the first study, we examine the effect of social interaction with salespeople and entertainment on shopper satisfaction. In the second study, we extend our research regarding the entertainment factor by providing an all-encompassing typology of entertainment to permanent entertainment, and temporary and special event entertainment. Afterwards, we examine the effect of each of the derived entertainment types on shopper satisfaction and desire to stay at the mall. The third study of this thesis moves to discuss the effect of eight shopping mall atmospherics general interior variables on the shopper emotions and behavior. As mentioned earlier, we consider in the three studies the mediating role of shopper emotional states. The findings of our surveys support several significant relations. The discussion of each study reveals some crucial and critical aspects, and provides several theoretical and practical implications.

This chapter aims at summarizing the main conclusions derived from the conducted three studies, covering all research objectives, and answering all research questions that have

been put forth in the first chapter. Secondly, this chapter discusses the general theoretical and managerial implications. Finally, the chapter ends with a discussion of the general limitations and suggestions of avenues for future research.

## **6.2. Main conclusions**

In chapter 1, we propose three main research objectives generated from five main research questions. In this section, we highlight the main conclusions regarding each research objective.

### **6.2.1. Research objective #1: To determine the effect of entertainment, and the surrounding social and sensorial environment on shopper behavior.**

Unlike several studies in the field, this thesis focuses solely on the social facet of the relationship between shoppers and salespeople, it addresses how shoppers evaluate salespeople from a social perspective and investigates the influence of this evaluation on shoppers' emotions and behavior. Findings of study 1 indicate that social interaction does not impact shopper satisfaction directly. These findings contradict several previous researches supporting the significant effect of social interaction with salespeople on satisfaction (e.g., Anselmsson, 2006; Pan & Zinkhan, 2006). However, the thesis finds that this social relationship influences the two emotional states of pleasure and dominance, which in turn, have a significant effect on shopper satisfaction. This result indicates that social interaction with salespeople changes shopper behavioral responses by influencing their emotional states.

Moreover, the first study investigates the effect of entertainment on shopper satisfaction and reports a significant direct relationship between the two factors. Also, the study indicates that entertainment predicts satisfaction indirectly through the emotions of pleasure and dominance. These findings are in line with several previous studies indicating the significant role of entertainment facilities and activities in shopping areas (Ahmad, 2012; Christiansen et al., 1999; De Nisco & Napolitano, 2006; El-Adly, 2007; Haynes & Talpade, 1996; Sit et al., 2003; Swinyard, 1998; Wakefield & Baker, 1998). However, based on the results of first study and based on some calls from the literature (Sit & Merrilees, 2005), we explore the importance of classifying the entertainment attributes into permanent entertainment and temporary and special event entertainment. In addition, the

need for empirical investigation of the role played by each type on consumer behavior has been highlighted. Although, the mentioned typology has been recognized in the literature (Anselmsson, 2016; Sit et al., 2003), the available typologies do not cover many recreational attributes, and to the authors' best knowledge, their roles had never been examined individually, with the exception of the study of Sit et al. (2003) which examines the effect of each of the specific venues for entertainment, and occasional entertainment on consumer behavior. However, Sit et al's (2003) study used only one item to capture these two types of entertainment. Therefore, the second study finds different significant relations between each type of entertainment and shoppers' emotions and behavior. Results suggest that the permanent entertainment is the only recreational type to influence shopper satisfaction directly. Furthermore, the study indicates that permanent entertainment influences satisfaction and/or desire to stay at the mall indirectly through the emotional states of pleasure and/or arousal. However, temporary and special event entertainment influences shopper satisfaction and the desire to stay at the mall through pleasure only. This could be because temporary and special event entertainment are not promoted in the same way as permanent entertainment. In addition, these entertainment options, such as exhibitions, etc. may be located in areas of the mall which are not visited as often. Hence, often consumers may not be aware of these entertainment options. These findings suggest that entertainment types may have differing impacts on consumer behavior, and point to how each entertainment type can be managed differently to influence shoppers' behavior and boost their shopping experience by mall managers.

Shopping in malls takes place in an enhanced social and recreational ambient which is not isolated from the effect of the surrounding atmosphere. Therefore, the third study discusses the effect of the eight atmospherics general interior variables of Turley and Milliman (2000). Results support the significant direct influence of color schemes, mall lighting, scent and temperature on shopper behavior, while other variables only influence shopper behavior indirectly through pleasure (flooring and carpeting, color schemes, music, and physical characteristics), and through arousal (color schemes and music). The third study, moreover, discusses how different atmospherics' formula can impact consumer emotions and behavior, and provides several managerial implications regarding the importance of controlling these variables to enhance the shopping experience.

Table 22 summarizes all the relationships investigated in the three studies. As a general conclusion, the three studies reveal that each factor has an impact on at least one of the studied shopping outcomes in different paths, directly or indirectly through emotional states. These results confirm the importance of entertainment, and the surrounding social and sensorial environment on providing a richer, more enjoyable and emotional shopping experience.

**Table 22.** Summary of all studied relations.

Antecedents/Outcomes	Emotional responses			Behavioral responses	
	Pleasure	Arousal	Dominance	Shopper satisfaction	Desire to stay
Social Interaction with salespeople	S	NS	S	NS	X
Entertainment (As one factor: Study 1)	S	S	S	S	X
PENT	S	S	S	S	NS
TENT	S	NS	S	NS	NS
GIV	PS	PS	PS	PS	PS
Pleasure	—	X	X	S	S
Arousal	X	—	X	NS	S
Dominance	X	X	—	S	NS

S = significant (At least for one time) | NS = not significant | X = not studied | — = not applicable

\* = significant at least in one study | PS = partially significant

### **6.2.2. Research objective #2: To inventory different mall entertainment attributes and propose an all-encompassing classification.**

Previous studies including classifications of entertainment types are scarce (Anselmsson, 2016; Sit et al., 2003). As mentioned earlier, typologies used in previous research are neither consistent nor comprehensive, many recreational attributes are not considered, many activities are mentioned in one typology but not in others, and moreover, some current entertainment activities are not included in any of these typologies. The second study develops and proposes a broader typology and inventory of all recreational activities and facilities in shopping malls (Table 14). Moreover, this inventory includes several recreational attributes which, to the author's best knowledge, have not been acknowledged in the literature, but are currently found in shopping malls. Entertainment can be used as an effective tool to enhance the shopping experience. The provided typology serves as a guide to help mall managers evaluating their recreational tenant mix, and points to managerial implications for mall development. Moreover, it may be used in future research to explain the intended entertainment type to their studied sample's subjects when investigating an entertainment type individually.

### **6.2.3. Research objective #3: To understand the role played by the shopper emotional states in the studied relationships.**

It is a well-established fact that shopping is an emotional involvement activity (Terblanche, 2018), and emotions play an important role in influencing consumer behavior (Calvo-Porrá et al., 2018). The current thesis, through three empirical studies, provides additional support for this fact and points to the important role played by shopper emotional states in influencing the behavioral response of satisfaction and desire to stay at the shopping area. In the first study, pleasure and dominance mediate the relation between entertainment and social interaction with salespeople, on the one hand, and shopper satisfaction, on the other. In addition, in the second study, pleasure and arousal also play a mediating role between entertainment types and two shopping outcomes; satisfaction and desire to stay. Finally, the third study uncovers the mediating role of pleasure and arousal in several relations between several atmospherics' general interior variables and shopper behavior. These results regarding the emotional states of pleasure and arousal are in line with several studies in the field supporting the mediating role of emotions (e.g., Gilboa & Rafaeli, 2003;

Im & Ha, 2011; Walsh et al., 2011), however, the first study reveals also a significant mediating role of dominance; this emotional state is less recognized in the consumer behavior research, either because it is not included or because results do not show a significant influence (Im & Ha, 2011). However, the significant role uncovered in the first study in this thesis calls for further research aiming at gaining a better understanding of the potential role played by this factor.

### **6.3. General theoretical contribution**

In the conclusion of each empirical study, we shed light on the theoretical contribution provided by each of these studies. The first study contributes to the retailing and consumer behavior literature by further shedding light on the role of shopper emotional states, specifically, by the finding that pleasure and dominance mediate the relationship between entertainment and satisfaction. This study also addresses another existing gap by adding to research about the role of social attributes in how shoppers evaluate salespeople in malls.

The second study also adds to research about several aspects. First, it provides a detailed and comprehensive typology of entertainment activities and facilities in shopping malls. The aim of this typology is not to be just an inventory of several recreational attributes, but also to help in clarifying two different types of entertainment to be used when empirically testing the role of entertainment in retailing. Second, it investigates individually the effect of each entertainment type on the two behavioral responses: satisfaction and desire to stay at the mall, allowing to understand how each type of entertainment impact differently on different shopping outcomes. Finally, it also considers the mediating role of the shopper emotional states in the relation between entertainment types and the studied behavioral responses.

The third study has also several contributions to the literature. First, it adopts and measures the effect of a comprehensive list of the atmospherics general interior variables on shopper behavior. This helps to evaluate and have a better understanding of the surrounding sensorial environment as a whole. Second, the third study adds to research by finding support for the effect of four atmospherics (flooring and carpeting, scent, cleanliness, and physical characteristics) on the desire to stay at the shopping mall. Finally, as in the first and second studies, it considers the mediating role of emotions. Previously, shopper

emotional states have not been taken into consideration when studying many of the investigated relations.

Besides the individual contribution of each study, this thesis, as an investigation covers a broader research model (Figure 1), contributing to Stimulus–Organism–Response (S-O-R) model, and provides strong evidence about the relevant effect of the studied antecedents on emotions, which in turn, have a significant impact on consumer behavioral responses, especially, when focusing on the recreational, social, and sensorial environment. These results add to the understanding of the shopping experience as a whole, considering not only utilitarian- and product-related attributes, but also social-, recreational- and environmental-attributes. Hence, our results add to the body of knowledge about the emotional side of the shopping experience, and suggest that focusing on utilitarian- and product-related attributes may be short-sighted and constitute a narrow view of shopping trips, which in turn, may lead to unsatisfied consumers, and unfulfilling shopping experiences. To sum up, this thesis emphasizes and contributes to understanding shopping as a holistic experience.

Finally, the current thesis contributes to knowledge in several ways by providing insights relevant for different consumer behavior theories hence contributing to advance the ongoing academic dialogue in the field of consumer behaviour. First, the results regarding the role of social interaction with salespeople support the social exchange theory or dyadic paradigm (Bagozzi, 1975, 1978) which emphasizes on the social side of consumers who act within exchange relationships between two parties (Cavanaugh, 2016). The results regarding entertainment add to prior research emphasizing the hedonic side of the shopping activity, according to which shopper behavior was found to be predicted by hedonic motivations (Arnold & Reynolds, 2003). Moreover, the findings regarding atmospherics are in line with the cognitive approach of consumer behavior theory which acknowledges the influential role of the environment and posits that consumers actively receive and process environmental stimuli as informational inputs aiding decision making (Stewart, 1994). Finally, the results of the thesis backs the cognitive approach in another way. The mediating role played by emotions supports the notion that consumers respond to emotional concerns as much as they respond to those of economics and function. This is in line for example, with the argument that marketing messages that include emotional

appeals to consumers' feelings may be more effective than rational appeals (Simintiras, Diamantopoulos, & Ferriday, 1997). In this context, Grewal et al. (2017) indicate that to enhance the customer experience, deeper emotional connections should be created between retailers and consumers.

#### **6.4. General managerial contribution**

The managerial contribution related to each study has been offered in chapters 4, 5, and 6. In the first study, we point to the importance of giving more attention to the social relation between shoppers and salespeople by improving the social skills of salespeople, understanding the culture of shoppers, and listening to their suggestions and complaints. The first study, also, highlights the importance of providing creative recreational activities, and offer seasonal entertainment that target all shopper segments.

In the second study, the practical recommendation regarding entertainment is extended, and the classification of entertainment attributes is offered to help mall managers formulating mall entertainment mix. Moreover, the authors offer several managerial implications for malls in different phases (built, under construction, or at the design stage) by discussing important recommendations like the need to increase the spaces allocated for entertainment, especially, new and creative entertainment facilities. Finally, in the third study, more managerial implications have been discussed regarding the use of specific environmental formulas to attract more shoppers and enhance their shopping experience.

As a general implication, the results of our three studies reveal the importance of a holistic view of shopping as a relational, hedonic, sensorial consumer experience. This stresses the need to redesign the tenant mix in favor of entertainment. More recreational facilities, and more offer of seasonal activities should be implemented in shopping areas to enhance the shopping experience. This redesign of the tenant mix must be accompanied with pleasant and attractive environment boosting shopper emotional states, hence, increases their satisfaction and other positive behavioral responses. Finally, the improvement regarding malls' entertainment and environment should be followed by a parallel development of the mall staff. Salespeople should be professionally trained to have the best knowledge regarding the social and emotional needs of mall visitors.

## 6.5. Limitations and future research

This thesis has some limitations that may open the door for future research opportunities. The sample in the three studies is regional in nature, and not representative. This study was conducted in a North-Portuguese context. Generally speaking, North Portuguese people may be more outgoing, or entertainment-looking shoppers comparing to other Portuguese regions or even shoppers in other countries. Hence, it may be argued that a sample from a different cultural or regional background could lead to different results. Hence, the proposed model could be tested in other regional contexts or by doing cross-cultural studies to compare results coming from different cultures.

The thesis research model was split into three parts tested by three different studies. Some results differ between studies due to scale changes from a study to another (e.g., entertainment was studied as one factor in the first study, but treated as two factors in the second study), or due to sampling changes (for example, dominance shows a significant effect on satisfaction in the first study, while, the same relation is not significant in the second and third studies). Hence, more research is required to enhance the generalizability and explanatory power of the proposed conceptual model.

In addition, regarding the used scales, social interaction with salespeople has been measured using a scale adapted from other studies (Chang et al., 2011; Sit et al., 2003; Teller, 2008). Hence, further studies using other approaches (mixed methods or qualitative research) are required to develop better measures and enhance the model's explanatory power. Existing scales have been also adapted to measure entertainment (El Hedhli et al., 2013), and entertainment types (El Hedhli et al., 2013; Sit et al., 2003) in the first and the second studies. The scales contain an item specifically for children entertainment. One could argue that maybe a part of the sample has not enough knowledge or experience with mall kids' entertainment to evaluate this item in an accurate way. Thus, in future research, this item could be excluded or the sample could be filtered to only people with kids' entertainment experience. More importantly, investigation targeting kids or teenagers could be an important contribution to the research area. Segmentation based on age or gender could lead to different and interesting conclusions. Regarding entertainment, also several investigations can be done about some specific attributes of entertainment, such as; cinema, kids area, etc.

Furthermore, the explanation of the mediating role of shopper emotions in the proposed model is limited to the three groups of emotional states (Mehrabian & Russell, 1974). Other emotion typologies (e.g., Izard, 1977; Plutchik, 1980) could lead to different findings. Moreover, only one type of shopping areas (the shopping mall) was studied in the current thesis, additional research is needed to test the proposed model in other shopping format settings (e.g., shopping streets, town centers, factory-outlet malls). One might expect different results when testing the model on factory-outlet malls, because shopping malls may be more experiential and thus invoke shopping hedonic values in a higher level comparing to factory-outlet malls which could invoke utilitarian values more and be a place where shoppers focus on good deals in terms of price and money-saving comparing to the emotional and recreational facets of shopping experience. In this case, it is expected that the antecedents of our model (like entertainment) could play a less pivotal role comparing to price, and promotions, for example.

This thesis offers more directions for future research. Further studies could test the proposed research model considering different types of shoppers. One might expect different results based on each type of shoppers – for example, the shopper typology of Reynolds, Jones, Musgrove, and Gillison (2012). Shoppers looking for entertainment and social gathering in malls may be more influenced by hedonic values related factors, while shoppers who want to make a purchase may be less likely to be influenced by hedonic values related factors.

Moreover, the current thesis focus on the effect of the surrounding social, recreational and sensorial environment on two behavioral responses, shopper satisfaction and the desire to stay in the shopping mall. Future research could test the effect of the studied antecedents on other outcomes. It would be interesting to investigate in future research the nature of the association between the proposed model antecedents and critical outcomes like purchase intention, loyalty, and word-of-mouth.

Finally, social interaction, entertainment, and website environment are also dimensions of online consumer behavior which has received significant attention in the field of marketing (Nguyen, De Leeuw, & Dullaert, 2018). Hence, it is advisable to retest the proposed model in an online context.

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## Appendices

### Appendix 1: Questionnaire of Study 1

(Portuguese)

Por favor, responda às questões escolhendo apenas uma resposta para cada questão.

1- O centro comercial que mais frequento em Braga e Guimarães é:

- A- Braga Parque
- B- Nova Arcada
- C- Guimarães Shopping
- D- Espaço Guimarães

Baseando-se na sua experiência no centro comercial que indicou na pergunta anterior, por favor responda às seguintes questões, indicando a sua concordância com as afirmações:

#### Lazer

2- Há muitas opções de lazer neste centro comercial

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

3- Este centro comercial tem muitos programas de lazer para as crianças

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

4- Este centro comercial tem muitos programas de lazer para adultos

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

5- Acho que este centro comercial é ótimo no que diz respeito a lazer

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

#### Interação com vendedores

6- Os vendedores neste centro comercial são prestáveis

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

7- Os vendedores neste centro comercial são simpáticos

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

8- Os vendedores neste centro comercial são cordiais

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

9- Os vendedores neste centro comercial dão atenção personalizada aos clientes

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

10- Gosto de interagir e falar com os vendedores

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Emoções**

Para cada par de itens, por favor indique como geralmente se sente quando está no centro comercial

#### Agradabilidade

11- Desagradável    0 0 0 0 0    Agradável

12- Infeliz    0 0 0 0 0    Feliz

13- Insatisfeito    0 0 0 0 0    Satisfeito

14- Melancólico    0 0 0 0 0    Contente

15- Desanimado    0 0 0 0 0    Animado

16- Entediado    0 0 0 0 0    Relaxado

#### Excitação

17- Calmo    0 0 0 0 0    Excitado

18- Descontraído    0 0 0 0 0    Entusiasmado

19- Indiferente    0 0 0 0 0    Motivado

20- Apático    0 0 0 0 0    Enérgico

#### Domínio

21- Sendo cuidado    0 0 0 0 0    No comando

22- Influenciado    0 0 0 0 0    Influyente

23- Orientado    0 0 0 0 0    Autónomo

24- Submisso    0 0 0 0 0    Dominante

25- Subjugado    0 0 0 0 0    Importante

#### **Satisfação do cliente**

26- Estou satisfeito com a decisão de visitar este centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

27- Optar por este centro comercial é uma boa escolha.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

28- Este centro comercial corresponde às minhas expectativas.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

29- Não duvido que visitar este centro comercial é uma escolha acertada.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

#### **Dados Demográficos**

30- Género

Masculino – Feminino

31- Estado civil

Solteiro/a, nunca casado/a – Casado/a (Ou: união de facto) – Viúvo/a –  
Divorciado/a – Separado/a

32- Idade

Menos de 21 – 21-30 – 31-40 – 41-50 – Acima de 50

33- Educação

Ensino básico – Ensino secundário – Frequência de ensino superior – Ensino  
superior – Pós-graduação (Mestrado ou Doutoramento)

Obrigado por preencher este questionário,

**(English)**

Kindly answer the following questionnaire, picking one answer only for each question.

1- In Braga and Guimarães, the mall I visit the most is:

- A- Braga Parque
- B- Nova Arcada
- C- Guimarães Shopping
- D- Espaço Guimarães

Now, based on your overall experience with the mall you have chosen above, kindly answer the following questions:

**Entertainment**

2- There are plenty of entertainment facilities at this mall

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

3- This mall has many entertainment programs for children

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

4- This mall has many entertainment programs for adults  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

5- I think this mall is great when it comes to entertainment  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

#### **Social interaction with salespeople**

6- The salespeople in this mall are helpful  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

7- The salespeople in this mall are friendly  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

8- The salespeople in this mall are courteous  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

9- The salespeople in this mall give customers personal attention  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

10- I like interacting and talking with salespeople  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

#### **Emotions**

For each pair of descriptors, please indicate how you typically feel while in the mall

##### Pleasure

11- Annoying    0 0 0 0 0    Pleasing

12- Unhappy    0 0 0 0 0    Happy

13- Unsatisfied    0 0 0 0 0    Satisfied

14- Melancholic    0 0 0 0 0    Contented

15- Despairing    0 0 0 0 0    Hopeful

16- Bored    0 0 0 0 0    Relaxed

#### Arousal

17- Calm    0 0 0 0 0    Excited

18- Relaxed    0 0 0 0 0    Stimulated

19- Unaroused    0 0 0 0 0    Aroused

20- Sluggish    0 0 0 0 0    Frenzied

#### Dominance

21- Care-for    0 0 0 0 0    In-Control

22- Influenced    0 0 0 0 0    Influential

23- Guided    0 0 0 0 0    Autonomous

24- Submissive    0 0 0 0 0    Dominant

25- Awed    0 0 0 0 0    Important

#### **Shopper Satisfaction**

26- I am satisfied with my decision to visit this shopping mall

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

27- My choice to visit this shopping mall is a wise one

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

28- This shopping mall meets my expectations

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

29- I am sure it is the right thing to visit this shopping mall

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Demographics**

30- Gender

Male – Female

31- Marital Status

Single, never married – Married (Or: domestic partnership) – Widowed – Divorced  
– Separated

32- Age

Under 21 – 21-30 – 31-40 – 41-50 – Above 50

33- Education

No high school – High school – Attend some college – Some college graduate –  
Post graduate

Thank you for completing this questionnaire,

## Appendix 2: Questionnaire of Study 2 and 3

(Portuguese)

Por favor, responda às questões escolhendo apenas uma resposta para cada questão.

1- O centro comercial que mais frequento em Braga e Guimarães é:

- A- Braga Parque
- B- Nova Arcada
- C- Guimarães Shopping
- D- Espaço Guimarães

Baseando-se na sua experiência no centro comercial que indicou na pergunta anterior, por favor responda às seguintes questões, indicando a sua concordância com as afirmações:

**Áreas de lazer permanentes** (Espaços disponíveis o ano inteiro, tais como salas de cinema, zonas de diversão para crianças, praças de alimentação)

2- Há muitas áreas de lazer permanentes neste centro comercial (ex: Cinemas, praça de alimentação, centro de jogos, etc).

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

3- Há muitas áreas de lazer permanentes para crianças (ex. Espaços para brincadeiras, zonas de diversão para crianças, etc).

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

4- Acho que este centro comercial é ótimo no que diz respeito a áreas de lazer permanentes.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

**Eventos de lazer temporários e em épocas festivas**

5- Há muitos eventos de lazer temporários neste centro comercial (ex: Atuações musicais, shows de moda, eventos relacionados com desporto, etc.).

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

6- Há muitos eventos de lazer durante as épocas festivas (ex: Natal, Páscoa, etc).

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

- 7- Há muitos eventos temporários para crianças.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

- 8- Acho que este centro comercial é ótimo no que diz respeito a eventos de lazer temporários.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

#### **Piso e alcatifas/carpetes/tapetes**

- 9- Gosto do tipo do piso neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

- 10- O piso e as alcatifas neste centro comercial são confortáveis.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

#### **Padrão de cores**

- 11- Gosto das cores neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

- 12- As cores neste centro comercial fazem-me sentir bem.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

- 13- Gosto verdadeiramente do uso de cor neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

#### **Iluminação**

- 14- A iluminação no centro comercial é adequada.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

- 15- Gosto da iluminação neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

16- A iluminação neste centro comercial faz-me sentir bem.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Música**

17- Gosto da música ambiente neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

18- A música ambiente neste centro comercial faz-me sentir bem.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

19- O volume da música ambiente é adequado.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Aroma**

20- Gosto do aroma neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

21- O aroma neste centro comercial faz-me sentir bem.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Temperatura**

22- A temperatura neste centro comercial é confortável.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

23- A temperatura neste centro comercial faz-me sentir bem.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Limpeza**

24- Acho realmente que é um centro comercial limpo.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

25- O nível de limpeza deste centro comercial faz-me sentir bem.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Características físicas**

26- Gosto da forma como as áreas públicas (ex. passagens/ corredores, casas de banho, áreas de descanso) estão concebidas.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

27- Gosto do tipo de paredes neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

28- Gosto da pintura e do revestimento das paredes neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

29- Gosto do tipo de teto deste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Emoções**

Para cada par de itens, por favor indique como geralmente se sente quando está no centro comercial

#### Agradabilidade

30- Desagradável    0 0 0 0 0    Agradável

31- Infeliz    0 0 0 0 0    Feliz

32- Insatisfeito    0 0 0 0 0    Satisfeito

33- Melancólico    0 0 0 0 0    Contente

34- Desanimado    0 0 0 0 0    Animado

35- Entediado    0 0 0 0 0    Relaxado

### Excitação

- 36- Calmo    0 0 0 0 0    Excitado
- 37- Descontraído    0 0 0 0 0    Entusiasmado
- 38- Indiferente    0 0 0 0 0    Motivado
- 39- Apático    0 0 0 0 0    Enérgico
- 40- Nervoso    0 0 0 0 0    Sereno

### Domínio

- 41- Sendo cuidado    0 0 0 0 0    No comando
- 42- Influenciado    0 0 0 0 0    Influyente
- 43- Orientado    0 0 0 0 0    Autónomo
- 44- Submisso    0 0 0 0 0    Dominante
- 45- Subjugado    0 0 0 0 0    Importante

### **Satisfação do cliente**

- 46- Estou satisfeito com a decisão de visitar este centro comercial.  
Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente
- 47- Optar por este centro comercial é uma boa escolha.  
Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente
- 48- Este centro comercial corresponde às minhas expectativas.  
Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

49- Não duvido que visitar este centro comercial é uma escolha acertada.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Vontade de permanecer no centro comercial**

50- Gosto de ficar no centro comercial o máximo de tempo possível.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

51- Gosto de passar o tempo neste centro comercial.

Discordo totalmente – Discordo – Neutro – Concordo – Concordo totalmente

### **Dados Demográficos**

52- Género

Masculino – Feminino

53- Estado civil

Solteiro/a, nunca casado/a – Casado/a (Ou: união de facto) – Viúvo/a –  
Divorciado/a – Separado/a

54- Idade

Menos de 21 – 21-30 – 31-40 – 41-50 – Acima de 50

55- Educação

Ensino básico – Ensino secundário – Frequência de ensino superior – Ensino  
superior – Pós-graduação (Mestrado ou Doutoramento)

Obrigado por preencher este questionário

### **(English)**

Kindly answer the following questionnaire, picking one answer only for each question.

1- In Braga and Guimarães, the mall I visit the most is:

A- Braga Parque

- B- Nova Arcada
- C- Guimarães Shopping
- D- Espaço Guimarães

Now, based on your overall experience with the mall you have chosen above, kindly answer the following questions:

**Permanent Entertainment** (Entertainment facilities available all year round, such as; cinema, kids' zone, food courts)

- 2- There are plenty of permanent entertainment facilities at this mall (ex: Cinema, food court, sports or gaming center, etc.).  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree
- 3- There are plenty of permanent entertainment program for kids (ex: play areas, and fun spaces for kids, etc.).  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree
- 4- I think this mall is great when it comes to permanent entertainment facilities.  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

**Temporary and special event entertainment**

- 5- There are plenty of temporary entertainment events at this mall (ex: music performance, fashion shows, sport-related events, etc.).  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree
- 6- There are plenty of entertainment events during special seasons (ex: Christmas, and Easter).  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree
- 7- There are plenty of temporary kids-related events.  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree
- 8- I think this mall is great when it comes to temporary entertainment.  
Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Flooring and carpeting**

9- I like the flooring style of this shopping mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

10- This malls' flooring and carpeting are comfortable.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Color schemes**

11- I like the colors in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

12- The colors in this mall make me feel good.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

13- I really like this mall's use of color.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Lighting**

14- The mall lighting is appropriate.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

15- I like the lighting in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

16- The lighting in this mall makes me feel good.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Music**

17- I like the music played in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

18- The played music in this mall makes me feel good.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

19- This mall music is played at an appropriate volume.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Scent**

20- I like the scent in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

21- The scent in this mall makes me feel good.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Temperature**

22- The temperature in this mall is comfortable.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

23- The temperature of this mall makes me feel good.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Cleanliness**

24- I really find this mall clean.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

25- The cleanliness level of this mall makes me feel good.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Physical characteristics**

26- I like the way the public areas (Walkways, passageways, toilets, resting areas) have been set out.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

27- I like the type of walls in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

28- I like the paint and wall cladding in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

29- I like the type of ceiling in this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

### **Emotions**

For each pair of descriptors, please indicate how you typically feel while in the mall

#### Pleasure

30- Annoying    0 0 0 0 0    Pleasing

31- Unhappy    0 0 0 0 0    Happy

32- Unsatisfied    0 0 0 0 0    Satisfied

33- Melancholic    0 0 0 0 0    Contented

34- Despairing    0 0 0 0 0    Hopeful

35- Bored    0 0 0 0 0    Relaxed

#### Arousal

36- Calm    0 0 0 0 0    Excited

37- Relaxed    0 0 0 0 0    Stimulated

38- Unaroused    0 0 0 0 0    Aroused

39- Sluggish    0 0 0 0 0    Frenzied

40- Jittery    0 0 0 0 0    Dull

#### Dominance

41- Care-for    0 0 0 0 0    In-Control

42- Influenced    0 0 0 0 0    Influential

43- Guided    0 0 0 0 0    Autonomous

44- Submissive    0 0 0 0 0    Dominant

45- Awed    0 0 0 0 0    Important

#### **Shopper satisfaction**

46- I am satisfied with my decision to visit this shopping mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

47- My choice to visit this shopping mall is a wise one.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

48- This shopping mall meets my expectations.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

49- I am sure it is the right thing to visit this shopping mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

#### **Desire to stay at the mall**

50- I like to stay at this mall as long as possible.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

51- I enjoy spending time at this mall.

Strongly disagree – Disagree – Neutral – Agree – Strongly agree

## Demographics

52- Gender

Male – Female

53- Marital Status

Single, never married – Married (Or: domestic partnership) – Widowed – Divorced  
– Separated

54- Age

Under 21 – 21-30 – 31-40 – 41-50 – Above 50

55- Education

No high school – High school – Attend some college – College graduate – Post  
graduate

Thank you for completing this questionnaire,