Sense of place, shopping area evaluation, and shopping behaviour

Citation for published version (APA):
van den Berg, P. E. W., Larosi, H., Maussen, S. J. E., & Arentze, T. A. (2021). Sense of place, shopping area evaluation, and shopping behaviour. Geographical Research, 59(4), 584–598. Advance online publication. https://doi.org/10.1111/1745-5871.12485

DOI:
10.1111/1745-5871.12485

Document status and date:
Published: 01/11/2021

Document Version:
Publisher’s PDF, also known as Version of Record (includes final page, issue and volume numbers)

Please check the document version of this publication:

• A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher’s website.
• The final author version and the galley proof are versions of the publication after peer review.
• The final published version features the final layout of the paper including the volume, issue and page numbers.

Link to publication

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

• Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
• You may not further distribute the material or use it for any profit-making activity or commercial gain
• You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the “Taverne” license above, please follow below link for the End User Agreement:
www.tue.nl/taverne

Take down policy
If you believe that this document breaches copyright please contact us at:
openaccess@tue.nl
providing details and we will investigate your claim.

Download date: 15. Sep. 2023
Sense of place, shopping area evaluation, and shopping behaviour

Pauline van den Berg | Hamza Larosi | Stephan Maussen | Theo Arentze

Department of the Built Environment, Eindhoven University of Technology, Eindhoven, The Netherlands

Correspondence
Pauline van den Berg, Department of the Built Environment, Eindhoven University of Technology, P.O. Box 513, 5600 MB Eindhoven, The Netherlands.
Email: p.e.w.v.d.berg@tue.nl

Abstract
In order to turn the trend of decreasing numbers of visitors in shopping areas, retailers seem to agree on the importance of creating experiences for consumers. Yet sense of place research focusing on shopping areas is limited and has not yet fully explored the extent to which sense of place is related to shopping behaviour within physical shopping areas. In this study, we used the concept of sense of place to study a consumer’s experience in inner-city retail environments. The main objective was to investigate (1) the relationship between shopping area evaluation and sense of place, (2) the relationship between sense of place and shopping behaviour, (3) the presence or absence of a relationship between shopping area evaluation and shopping behaviour, and (4) the moderating effect of personal and situational characteristics on these relationships. We estimate a path analysis model using survey data that were collected among 380 consumers in 3 shopping areas in the Amsterdam region. The findings suggest that sense of place is a better predictor of shopping behaviour than consumers’ evaluation of shopping area characteristics. Therefore, it is important for retailers and shopping area managers to focus on creating a retail environment that stimulates formation of a sense of place.

Keywords
atmospherics, consumer behaviour, path analysis, retail, sense of place, shopping experience

1 | INTRODUCTION

Shopping areas are under pressure. Online shopping is increasing, and this trend results in lower numbers of visitors in many shopping areas, a decline in the number of independent local retailers, and a shift to out-of-town retailing (Jones & Livingstone, 2018). The COVID-19 pandemic is reinforcing these pressures (Slob, 2020). The retail real estate market has also suffered from increasing vacancy rates. In order to maintain viability and vitality, shopping areas should not just be environments in which consumers can purchase their goods and services but arguably should also be environments that offer experiences for consumers, that give them a feeling of happiness, and that reflect their identity and can fulfil their needs. As Baker and Wood (2010, p. 66) put it:
Lifeless main streets are bad for business; they are calamitous for communities, stripping centres of their social significance, pulverizing their ‘sense of place.’ As such, analysis of the challenges confronting main streets must proceed with one eye on commercial considerations, competition concerns, and the like; the other on the way in which a population’s self-identity, its sense of itself, may be anchored in particular places.

Thus, they have argued that a geographical understanding of how people experience shopping areas is as important as economic reasoning in retail policy making. Consumers desire experiences while spending time on shopping activities, and thus are emotionally involved in shopping processes and shopping locations. Hence, the term ‘experiential consumption’ has been invoked by Holbrook and Hirschman (1982), who have found that consumer experiences are related to shopping behaviour. Studies building on their insights have generally shown that individual emotional responses to retail settings are important parts of consumer behaviour and that those responses influence behaviours such as time and money spent shopping (Bell, 1999; Donovan et al., 1994; Stoel et al., 2004; Wakefield & Baker, 1998). Such studies have also shown that emotions not only influence shopping behaviour but also mediate the relationship between the environment and the behaviour. While the idea that retailers should focus on creating experiences for consumers is not new, the topic of retail experience is still timely and receives ample attention from researchers (Andajani, 2015; Greenwal & Roggeveen, 2020).

Studies focusing on consumer experience in retail settings generally have used emotional constructs of pleasure, arousal, and dominance (Mehrabian & Russell, 1974). In this study, we propose the concept of sense of place to study a consumer’s experience in inner-city retail environments. Sense of place reflects a more overall experience that is developed over time, rather than an immediate experience of on-site and real-time emotions the environment evokes (Dane et al., 2019). We therefore consider sense of place to be a useful concept to study the relationship between evaluation of shopping area attributes and shopping behaviour.

Although sense of place has been studied extensively in the context of residential and recreational areas, it has received only limited attention in the context of retail areas. On that understanding, this study contributes to that emerging field. While it has been found that shopping area characteristics can contribute positively or negatively to experiences of a sense of place (Kusumowidagdo et al., 2015; Shamsuddin & Ujang, 2008), the literature does not explore the extent to which sense of place is related to shopping behaviour within physical shopping areas.

Therefore, in this study we examine the relationship between sense of place and the time and money individuals spend in a shopping area. It is generally acknowledged that an environment’s emotion-eliciting qualities affect human behaviour and within this person–environment–behaviour context, a mediating role is ascribed to human emotions (Mehrabian & Russell, 1974). Moreover, there is ample evidence that a positive evaluation of a shopping area’s attributes, such as store variety, atmosphere, service level, accessibility, and layout is related to feelings of happiness and arousal and stimulates shopping behaviour in terms of time and money expenditures (Babin & Darden, 1995; Bloch et al., 1994; Wakefield & Baker, 1998). Similar emotions, such as enjoyment and happiness, are found to play an important role in creating a sense of place (Shamsuddin & Ujang, 2008). Still, sense of place has hardly been used to study customer experience and behaviour.

The main objective of this research was to examine the role of sense of place in mediating the relationship between evaluation of a shopping area’s attributes and shopping behaviour. We test the idea that sense of place, rather than the shopping area evaluation itself, affects these variables of consumers’ shopping behaviour. Survey data were collected among 380 consumers at three shopping areas in the Amsterdam region. A path model was estimated to test the relationships between evaluation of shopping area attributes, sense of place, and shopping behaviour while controlling for personal and situational characteristics of individuals visiting a shopping area.

Key insights

This study used the concept of sense of place to measure experience in shopping areas. We found that sense of place is positively related to shopping behaviour in terms of time expenditures, store visits, and money expenditures and to shopping behaviour. But shopping area evaluation is only indirectly related to shopping behaviour, via sense of place, and therefore in this work, we also considered a range of alternative explanations that we share here.
The remainder of the article is structured as follows. In Section 2, the relevant literature and conceptual considerations are discussed. Section 3 describes the data collection and methods. Next, the path analysis results are described in Section 4. In Section 5, the findings are discussed. Section 6 presents the limitations of this study and gives directions for further research. Section 7 presents the conclusions and practical implications.

2 | LITERATURE AND CONCEPTUAL CONSIDERATIONS

2.1 | Sense of place

Experiences of the built environment can be measured in different ways. A distinction can be made between immediate and overall experiences (Dane et al., 2019). Immediate experiences are about the on-site and real-time emotions an environment evokes. Overall experiences can be referred to as satisfaction with a place, based on a sequence of independent experiences (Dane et al., 2019). This definition has overlap with the sense of place concept. In both, past events are a basis for experience. Momentary experiences fluctuate more than overall experiences. For this research, we focused on overall experience, more specifically sense of place, because this type of experience is expected to be linked to the shopping behaviour of individuals.

Recently, the concept of sense of place has increasingly been studied by social scientists. Sense of place has been found to be positively related to health and wellbeing (Lovell et al., 2017; Poe et al., 2016; Williams & Kitchen, 2012) as well as to a sense of safety (Chataway, 2020).

The concept of sense of place is an overarching construct defining all bonds formed between individuals and places (Lewicka, 2011; Scannell & Gifford, 2010). Three different place constructs are regularly used in the literature to represent the concept of sense of place: place attachment, place identity, and place dependence.

Place attachment is generally defined as the emotional bonds between individuals and particular places (Nielsen-Pincus et al., 2010), where they tend to stay, and where they feel comfortable and secure (Hernandez et al., 2007). A positive sense of place involves feelings of comfort, security, well-being, and happiness. Naturally, places can also evoke negative feelings, such as fear, stress, or annoyance (Weijts-Perrée et al., 2019, 2020). People–place bonds can thus be negative, nonexistent, or positive.

Place identity is generally defined as the belief that a place is reflected in the self (Nielsen-Pincus et al., 2010) and involves a mixture of feelings towards a place and its physical attributes and symbolic connections that define the identity of an individual, giving meaning and purpose to life and reflecting aspects of the self (Hernandez et al., 2007; Prohansky et al., 1983).

Place dependence is generally defined as “a functional attachment that reflects the importance of a place in providing features and conditions that support specific goals or desired activities” (Williams & Vaske, 2003, p. 831). It reflects the degree to which a place facilitates some set of objectives when compared to alternative settings (Jorgensen & Stedman, 2006). The importance of the functional attachment is related to the quality of a place, evaluating it based on the extent to which it satisfies a set of desired behavioural objectives of an individual. The term dependence can have negative connotations, for example, of weakness and addiction. However, positive dependency is generally considered to be beneficial to people and a positive contributor to sense of place (Tidball & Stedman, 2013).

While people can form bonds with different types of places, the research on sense of place has primarily focused on residential areas (Hidalgo & Hernández, 2001; Nielsen-Pincus et al., 2010; Williams et al., 2010). Some studies have also investigated sense of place in recreational areas (Bonaiuto et al., 1996; Williams & Vaske, 2003) or tourism business districts (Liu & Cheung, 2016; Paradis, 2000).

Regarding shopping areas, research into sense of place is limited. Kusumowidagdo et al. (2015) have studied the factors that influence adolescents’ place attachment to shopping malls. They found that physical and social factors, memories and experience, familiarity, novelty, place satisfaction, interaction and activity features, time, and branding and promotion play a role. Shamsuddin and Ujang (2008) have studied the factors influencing sense of place in two shopping districts located in the city centre of Kuala Lumpur. Their results suggest that several shopping area characteristics, such as diversity, vitality, accessibility, safety, and distinctiveness, contribute to the experience of a sense of place. Ujang and Zakariya (2015) have used semi-structured interviews to examine place attachment of the users of (shopping) streets in the city centre of Kuala Lumpur, Malaysia. They found that the users’ roles (shop owners, street vendors, and visitors) and ethnic backgrounds influenced sense of place.

Although sense of place has been studied in retail areas, the literature has not yet explored to what extent it is related to shopping behaviour within physical shopping areas.
Experiences in retail areas

Although sense of place has been barely studied in relation to shopping areas and shopping behaviour, consumers’ perceptions and experiences in retail areas have received ample attention (Grewal & Roggeveen, 2020). It is generally acknowledged that an environment’s emotion-eliciting qualities affect human behaviour within it. In this person–environment–behaviour context, a mediating role is ascribed to emotions. An often-applied theoretical framework addressing emotional experiences in that context is provided by Mehrabian and Russell’s (1974) environmental psychology theory. They state that pleasure, arousal, and dominance are three fundamental emotional dimensions that effectively summarise the emotion-eliciting qualities of environments. In short, their theory states that physical and social stimuli in the environment as well as characteristics associated with personality directly affect the emotional state of a person, thereby influencing his behaviour. So, people’s emotional states or experiences are assumed to mediate the relationship between personal and environmental characteristics and their behaviours.

Research on shopping behaviour in retail environments indicates a similar mediating role for consumer experiences. In an early attempt to validate Mehrabian and Russell’s (1974) theory in the context of retail settings, Donovan and Rossiter (1982) studied the influence of store atmosphere on shopping behaviour. Their results indicate that emotional states of pleasantness and arousal are stimulated when retail store environments are perceived as surprising, rare, novel, or complex. Additionally, shopping-related intentions such as enjoyment of shopping, time spent browsing and exploring, and a tendency to spend more money than originally planned are more likely to increase when consumers experience feelings of pleasantness or arousal in retail store environments. Donovan et al. (1994) have found that arousal and pleasure induced by the store environment both influenced unplanned expenditures and extra time spent in-store. Babin and Darden (1995) have generated similar results, and shown that feelings of pleasure and arousal in a store influence time and money expenditures.

For both in-store environments and also in the context of shopping areas, environmental stimuli such as store variety, attractive mall design, accessibility, and layout seem to contribute to feelings of excitement and stimulate shopping behaviour in terms of a desire to stay (Wakefield & Baker, 1998). Emotions and feelings such as pleasure, excitement, and relaxation while shopping are found to influence behavioural aspects such as time and money spent, numbers of stores visited, and recreational activities (Baker et al., 1992; Bell, 1999; Donovan et al., 1994).

Verhoef et al. (2009) have constructed a broad conceptualising framework of customer experience in retail settings. They defined customer experience as a holistic construct involving cognitive, affective, emotional, social, and physical responses to the shopping environment. The framework included various shopping area characteristics that directly influence the customer experience, such as the social environment, service interface, retail atmosphere, assortment, price, consumer experiences in alternative channels, and the retail brand. The effects of these environmental-related characteristics on the customer experience were moderated by a consumer’s personal factors (for example, consumer attitudes, goals, and socio-demographics) and situational factors (for example, cultural, economic climate, location, and season).

Several researchers have attempted to list and categorise the relevant shopping area characteristics that contribute to experiences or images of a shopping area. Sit et al. (2003) have conducted a literature review to characterise a shopping area’s image and distinguish seven categories: merchandising, accessibility, services, atmospherics, entertainment, food, and security. In turn, Shamsuddin and Ujang (2008) have found that experience of a sense of place is influenced by shopping area characteristics, such as the retail offer, food and drink options, atmosphere, layout, and liveliness. In a similar vein, Gomes and Paula (2017) have conducted a literature review with the aim to produce a list of shopping mall image attributes that were identified to be most relevant in an experiential and behavioural context. They developed a list to conceptualise a shopping area’s image that consists of six tangible aspects (location/access, parking, ambience, retail offer, leisure offer, and facilities) and two intangible aspects (the atmosphere in terms of emotional evaluation and self-congruity).

Hypotheses and conceptual model

The literature provides evidence for the relationships between and among shopping-area evaluation, sense of place, and shopping behaviour but has not revealed the exact structure of these relationships. The importance of emotional responses on individuals’ behaviour, as emphasised in general psychological theory, suggests sense of place mediates between shopping area evaluation and shopping behaviour. To establish the role of sense of place in determining shopping behaviour, we therefore formulate the following hypotheses:
H1. Controlling for shopping area, personal characteristics, and situational characteristics, there is a direct and positive relationship between shopping area evaluation and sense of place.

H2. Controlling for shopping area, personal characteristics, and situational characteristics, there is a direct and positive relationship between sense of place and shopping behaviour.

H3. The relationship between shopping area evaluation and shopping behaviour is mediated by sense of place. There is no direct relationship between shopping area evaluation and sense of place, only an indirect effect (via sense of place).

Furthermore, the way sense of place influences behaviour may differ between individuals dependent on personal characteristics. Therefore, we test the following hypothesis:

H4. Personal characteristics including socio-demographics and personality traits moderate the relationship between shopping area evaluation and sense of place and moderate the relationship between sense of place and shopping behaviour.

These hypotheses are based on Mehrabian and Russell’s (1974) environmental psychology theory and the model by Verhoef et al. (2009). The hypotheses are visualised in the conceptual model in Figure 1.

As represented by this conceptual model, and given the area’s attributes, a positive evaluation of a shopping area leads to the creation of a sense of place (H1), which in turn has a positive influence on shopping behaviour including the time spent, number of stores visited, and expenditure in the shopping area (H2). The absence of a direct effect between shopping area evaluation and shopping behaviour (H3) is visualised with a dotted arrow. Following the insights from the literature, environmental, personal, and situational characteristics have been identified as moderating factors (H4), affecting the relationship between shopping area characteristics and experience (Luomala, 2003; Verhoef et al., 2009). Our model also allows for a possible moderating effect of personal and situational variables on the relationship between sense of place and shopping behaviour. In the conceptual model, this is indicated by the arrows from personal and situational characteristics to the arrow between shopping area evaluation and sense of place, and to the arrow between sense of place and shopping behaviour. In Section 4, these moderation effects are presented as interactions. In addition, we also incorporate the personal and situational characteristics as control variables in order to be able to estimate the (pure) relationships of primary interest. To test these relationships, the model controls for effects of personal characteristics (including personality traits), situational characteristics, and shopping-area variables on all endogenous variables (sense of place and shopping behaviour).
3 | DATA COLLECTION AND METHODS

To estimate the relationships of the conceptual model, data were collected among consumers at shopping areas in the Amsterdam metropole region. Three regional servicing shopping areas with a size of at least 15,000 m² floor space were selected for this field study: (1) Boven ’t Y, (2) Negen Straatjes, and (3) Stadshart Amstelveen. All three shopping areas belong within the top 10 favourite shopping areas to shop for fun by inhabitants of the Amsterdam region (Groep & Slot, 2014). However, all three shopping areas differ considerably based on their characteristics (for example, retail offer and physical design). Information about these characteristics was retrieved from Locatus and on-sight observations. Table 1 shows the retail offer of the three survey locations. As can be seen, Boven ’t Y has the highest vacancy rate with 9% of the units being vacant, whereas Negen Straatjes only has one vacant unit. Negen Straatjes and Stadshart Amstelveen have a large share of stores offering fashion and luxury, whereas Boven ’t Y has a more diverse offer with a relatively large share of services. Thus, the shopping areas introduce some variation in shopping centre characteristics within the segment considered (of regional servicing shopping areas).

Surveying activities were conducted at each shopping area for a consecutive period of 7 days (between 11:00 and 18:00) in September and October 2017. Consumers who were leaving the shopping area were approached and asked to fill out the questionnaire. In order to do so, the exit locations of the shopping areas and parking-ticket machines were selected as position for the interviewer. As information is gained directly from individuals within the retail settings, their perceptions of the shopping area and activity will still be fresh in memory, so that memory bias is avoided, and actual shopping behaviour can be measured reliably. In order to have a somewhat balanced gender distribution, male shoppers were asked to answer the survey when approaching couples or groups. In total, 380 shoppers completed the survey.

The survey was designed with the aim to collect information from consumers regarding their personal characteristics, situational characteristics, evaluation of shopping area characteristics, experience of a sense of place, and shopping behaviour (time expenditures, number of stores visited, and money expenditures) included in the conceptual model. The measures used in the survey are described below.

3.1 | Personal characteristics

Regarding personal characteristics, several sociodemographic characteristics such as gender, age, education, employment, household composition, and household income are adopted within the model. In addition, a key personal characteristic described by Luomala (2003) is the individual’s shopping orientation, which defines how a consumer relates to shopping. Arnold and Reynolds (2003) distinguished 6 categories representing consumers’ shopping orientations: (1) adventure shopping, (2) social shopping, (3) gratification shopping, (4) idea shopping, (5) role shopping, and (6) value shopping. Adventure shopping pertains to a consumer’s desire for stimulation, excitement, and adventurous experiences while shopping. Social shopping involves the interpersonal aspects of shopping, such as the enjoyment derived from shopping with friends or family members and socialising with others. Gratification shopping concerns a consumer’s desire to alleviate a negative mood by shopping and to reward oneself by shopping. Idea shopping regards a consumer’s desire to browse and keep up

| Retail and leisure offer | Boven ’t Y | Negen Straatjes | Stadshart Amstelveen |
|-------------------------|-----------|-----------------|---------------------|
| # units | % | # units | % | # units | % |
| Total number of units | 169 | 100 | 245 | 100 | 219 | 100 |
| Vacancy | 16 | 9 | 1 | 0 | 7 | 3 |
| Daily goods | 24 | 14 | 16 | 7 | 35 | 16 |
| Fashion and luxury | 45 | 27 | 137 | 56 | 98 | 45 |
| Free time | 6 | 4 | 8 | 3 | 12 | 5 |
| In and around home | 19 | 11 | 5 | 2 | 18 | 8 |
| Retail other | 8 | 5 | 6 | 2 | 2 | 1 |
| Leisure | 21 | 12 | 50 | 20 | 27 | 12 |
| Services | 30 | 18 | 22 | 9 | 20 | 9 |
with new trends, such as fashion and product innovations. Role shopping concerns a consumer's enjoyment derived from shopping for others. Value shopping involves a consumer's aim of shopping for discounts and involves a focus on finding bargains and low prices for products. These shopping orientations reflect the consumer's extent of involvement in shopping and are related to feelings of excitement and pleasure, and influence time expenditures.

Regarding shopping orientation, respondents were asked to indicate to what extent they (1) consider shopping as an adventure (adventure shopping), (2) derive pleasure from shopping by finding the right gift for someone (role shopping), (3) enjoy shopping as a mean to reward oneself (gratification shopping), (4) derive pleasure from shopping for product discounts and sales (value shopping), (5) derive pleasure from conversating with others while shopping (social shopping), and (6) derive pleasure from browsing stores to keep up with new trends (idea shopping) (Arnold & Reynolds, 2003). These statements are measured on a 7-point Likert response scale, ranging from strongly disagree to strongly agree, with 4 as neutral.

3.2 | Situational characteristics

Situational characteristics pertain to the characteristics of the specific shopping activity. Consumers' shopping motivation and shopping companion may influence shopping behaviour. Shopping motivations are represented as being either hedonic or utilitarian or a combination of both and provide insight into how consumers prioritise and motivate their shopping activities (Luomala, 2003; Verhoef et al., 2009). Consumers with utilitarian motives generally 'shop with a goal' and are characterised by an efficient, task-related, and rational attitude towards shopping. On the other hand, consumers shopping with hedonic motives generally 'shop as a goal' and are characterised by elements of pleasure, recreation, excitement, and exploration in their attitude towards shopping (Babin et al., 1994). Moreover, a consumer's motivation might also combine hedonic and utilitarian elements. The motive of shopping may affect the perception of the retail environment (Chebat et al., 2014) and stimulates feelings of pleasure and arousal (Borges et al., 2010). In addition, the presence of a companion stimulates shopping behaviour in terms of time and money spent (Hart & Dale, 2014). In this study, the presence of a shopping companion is treated as a dichotomous variable: a consumer either shopped with one or more companion(s) or alone.

Earlier experiences with a retail environment may also influence the way individuals perceive it. Unfamiliar retail environments can affect emotional experiences of consumers by inducing stimuli of novelty and complexity. Familiarity with the visited shopping area is measured on a 7-point Likert scale, ranging from unfamiliar (1) to very familiar (7).

Other situational characteristics that might affect sense of place and shopping behaviour are transport mode to the shopping area and travel distance. Travel distance is calculated based on the respondent's postal address.

3.3 | Evaluation of a shopping area attributes

Environmental stimuli are represented in our model as the evaluation of shopping area characteristics. Consumers' perceptions of relevant shopping area characteristics are used to measure their evaluation of the shopping area. Evaluation of shopping area attributes was measured by asking respondents to which extent they (dis)agree with 14 statements. The statements are constructed using findings in literature involving consumer experience, shopping behaviour, and sense of place (Gomes & Paula, 2017; Shamsuddin & Ujang, 2008; Sit et al., 2003; Verhoef et al., 2009). These statements are evaluated on a 7-point Likert scale, ranging from strongly disagree to strongly agree. The items have a Cronbach alpha of .851 and therefore can be combined into a single mean score.

3.4 | Sense of place

The instrument to measure sense of place is based on the constructs of place attachment, place identity, and place dependence. It contains nine statements based on the scales used by Jorgensen and Stedman (2006), Deutsch and Goulias (2009), and Nielsen-Pincus et al. (2010). These scales were combined and modified to reflect affective, cognitive, and behavioural attitudes towards a shopping area. As a result, sense of place is measured by asking respondents to what extent they (dis)agree with
nine statements, using a 7-point Likert scale (three statements per construct). The Cronbach alpha for these items is .932, indicating a high internal consistency. For each respondent, the mean score on these items was used in the analysis.

3.5 | Shopping behaviour

Shopping behaviour is defined as time expenditure, store visits, and money expenditure in the shopping area during the visit. Time expenditure is measured using an open question, where consumers are asked to fill in the number of hours spent in the shopping area. Store visits is measured by asking respondents how many stores they visited. Monetary expenditure is measured by asking respondents to fill in the amount of money they spent in the shopping area during their visit.

4 | RESULTS

In total, 380 respondents participated in the study. Table 2 shows the sample characteristics and descriptive statistics of endogenous variables of the model. A little more than half of the sample were female. Even though relatively more females are present in shopping areas, we purposefully approached more males to get a balanced sample regarding gender. A relatively large share of respondents was highly educated. Most respondents came to the shopping area by car, followed by public transport. The average travel distance to the shopping area was 14 km. Table 2 shows that the average score on familiarity is 5.79, indicating that most respondents were quite familiar with the shopping area. Only 19 respondents (5%) scored this with a 1, indicating that they were unfamiliar with the shopping area.

Visitors to Negen Straatjes are, on average, less familiar with the area. Regarding shopping motivation, the results in Table 2 show that almost two thirds of respondents in Negen Straatjes have a hedonic shopping motivation, whereas the other two shopping areas attract more utilitarian shoppers. This finding is probably related to the retail offer, as Boven ’t Y and Stadshot Amstelveen have larger shares of daily goods, whereas the retail offer of Negen Straatjes consists mainly of fashion and luxury and leisure. The respondents in Negen Straatjes score higher on adventure shopping, idea shopping, and gratification shopping; the respondents in Stadshot Amstelveen score higher on role shopping; and Boven ’t Y attracts more value shoppers.

The results show that shopping area evaluation is highest in Negen Straatjes and lowest in Boven ’t Y. Also, for sense of place, we have found that Negen Straatjes scores highest and Boven ’t Y scores lowest. Similar patterns can be seen for shopping behaviour: respondents in Negen Straatjes on average spent more time, visited more stores, and spent more money than respondents in the other shopping areas. Boven ’t Y has the lowest average store visits and time and money expenditures. On average, across all three shopping areas, respondents spent an hour and 45 minutes in the shopping area, visited almost four stores, and spent 86 euros. The logarithm of the amount of money spent was used for the analysis, as this transformation appeared to improve the model fit.

To analyse the role of sense of place and the relationships between personal characteristics, situational characteristics, shopping area evaluation, and the three shopping behaviour variables according to the conceptual model, a path model is estimated using the statistical software package LISREL (Jöreskog & Sörbom, 2001). Path analysis is a method in which a set of regression equations that describe the relationships between a set of variables can be estimated simultaneously. The path model can have several endogenous variables, which can be functions of the exogenous variables and of other endogenous variables. Using this method, the relationships represented in the conceptual model (Figure 1) are estimated in an integrated fashion.

Regarding the shopping behaviour variables, all reciprocal relationships between the three variables were entered in the model. Differences in shopping area characteristics between the three areas were captured as fixed effects of location in the model. For this, two dummy variables are included that indicate the shopping location. Note that the data of this study are cross-sectional, which means that we cannot demonstrate causal relationships. All personal and situational characteristics measured are potentially relevant control variables.

For a parsimonious model specification, only the relationships that were significant in bivariate analyses were entered in the model. Next, relationships that turned out to be not significant at the 5% alpha level were removed in a stepwise manner.

Table 3 shows the goodness-of-fit measures of the model. In general, the goodness-of-fit measures are adequate. Rules of thumb suggest that for correct models, the value of chi square divided by the model degrees of freedom should be smaller than 2 (Golob, 2001) or at least smaller than 5 (Stassart et al., 2013). Another goodness-of-fit measure is the root mean square error of approximation (RMSEA), which should preferably be below .05 (Golob, 2001). The RMSEA of the current model equals .068, which indicates a modest fit. The goodness-of-fit index should preferably be greater than .90 to indicate a good model (Golob, 2001) and is .96 for
| Personal characteristics | Sample (N = 380) (%) | Boven ’t Y (N = 132) (%) | Negen Straatjes (N = 107) (%) | Stadshart Amstelveen (N = 141) (%) |
|--------------------------|---------------------|--------------------------|-------------------------------|----------------------------------|
| Gender                   |                     |                          |                               |                                  |
| Male                     | 45                  | 47                       | 43                            | 45                               |
| Female                   | 55                  | 53                       | 57                            | 55                               |
| Age                      |                     |                          |                               |                                  |
| ≤25 years                | 19                  | 24                       | 15                            | 18                               |
| 26–50 years              | 59                  | 57                       | 63                            | 58                               |
| ≥51 years                | 22                  | 19                       | 22                            | 23                               |
| Education                |                     |                          |                               |                                  |
| Low or middle education  | 34                  | 37                       | 35                            | 30                               |
| High (BSc or higher)     | 66                  | 63                       | 65                            | 70                               |
| Employment               |                     |                          |                               |                                  |
| Fulltime (≥35 hours/week)| 49                  | 45                       | 61                            | 43                               |
| Part-time (≤34 hours/week)| 39                 | 44                       | 32                            | 41                               |
| Retired/unemployed       | 12                  | 11                       | 7                             | 16                               |
| Household composition    |                     |                          |                               |                                  |
| Single                   | 36                  | 43                       | 27                            | 36                               |
| Couple                   | 33                  | 27                       | 40                            | 32                               |
| Household with children  | 31                  | 30                       | 33                            | 32                               |
| Household income         |                     |                          |                               |                                  |
| <€1,433                  | 17                  | 23                       | 10                            | 18                               |
| €1,433–€2033             | 20                  | 26                       | 17                            | 17                               |
| €2033–€2,808             | 22                  | 20                       | 28                            | 21                               |
| €2,808–€3,942            | 18                  | 19                       | 19                            | 17                               |
| >€3,942                  | 22                  | 13                       | 26                            | 28                               |
| Transport mode           |                     |                          |                               |                                  |
| Car                      | 42                  | 50                       | 15                            | 56                               |
| Public transport         | 26                  | 14                       | 53                            | 16                               |
| Walking                  | 17                  | 22                       | 16                            | 13                               |
| Bike                     | 15                  | 14                       | 16                            | 15                               |
| Shopping motivation      |                     |                          |                               |                                  |
| Hedonic                  | 38                  | 30                       | 62                            | 27                               |
| Utilitarian              | 45                  | 57                       | 29                            | 47                               |
| Both                     | 17                  | 13                       | 9                             | 26                               |
| Travel distance, mean (st. dev.) | 14.13 (25.03) | 7.01 (9.72) | 23.83 (35.80) | 13.43 (22.75) |
| Familiarity, mean (st. dev.) | 5.79 (1.74) | 5.98 (1.59) | 5.39 (1.88) | 5.91 (1.73) |
| Adventure shopper, mean (st. dev.) | 4.20 (1.72) | 4.06 (1.79) | 4.51 (1.56) | 4.10 (1.75) |
| Gratification shopper, mean (st. dev.) | 4.89 (1.75) | 4.57 (1.89) | 5.18 (1.50) | 4.98 (1.75) |
| Role shopper, mean (st. dev.) | 5.71 (1.57) | 5.52 (1.76) | 5.64 (1.48) | 5.94 (1.41) |
| Value shopper, mean (st. dev.) | 4.65 (1.88) | 4.82 (1.90) | 4.32 (1.72) | 4.74 (1.94) |
| Social shopper, mean (st. dev.) | 4.26 (1.80) | 4.31 (1.82) | 4.30 (1.63) | 4.17 (1.92) |
| Idea shopper, mean (st. dev.) | 3.68 (2.00) | 3.18 (2.00) | 4.21 (1.90) | 3.74 (1.98) |
| SA evaluation, mean (st. dev.) | 4.90 (1.05) | 4.12 (1.01) | 5.35 (0.63) | 5.29 (0.92) |
our model. In sum, the assumed model structure fits the data satisfactory.

Table 4 shows the standardised path coefficients of the final model. As for the relationships between shopping behaviour variables, the results show that time spent in the shopping area is positively related to the number of stores visited and the amount of money spent. In addition, a positive relationship is found between the number of stores visited and the amount of money spent.

Regarding the relationship between sense of place and shopping behaviour, we have found that sense of place has a significant direct effect on all three shopping behaviour variables. This result confirms H2: shoppers with a more positive sense of place for the area spend longer time, visit more stores, and spend more money on shopping visit to the area. The sizes of the coefficients are similar. In line with H1, we also found that shopping area evaluation is positively related to sense of place, but no direct relationship is found with any of the shopping behaviour variables, which is in line with H3: sense of place mediates the relationships between evaluation of the area and the shopping behaviour variables; there is no direct effect of evaluation on the behaviour. Finally, regarding H4, we have found that the relationship between sense of place and time spent in the shopping area is moderated by the personal and situational characteristics, namely, the extent to which the shopping motive is hedonic and the person is an adventure shopper. The values of the path coefficients on this level indicate that the positive relationship between sense of place and time expenditure is stronger in case of a hedonic motive and an adventure shopper. In addition, the relationship between appreciation of shopping area characteristics and sense of place is moderated by familiarity with the shopping area, indicating that this relationship is stronger for consumers who are more familiar with the shopping area.

Regarding the relationships between personal and situational characteristics and sense of place, the results indicate that single person households experience a lower sense of place than people who live with a partner and/or child (ren). They also show that adventure shoppers and idea shoppers experience a higher sense of place. This finding suggests that considering shopping as an adventure and as a mean to keep up with new trends, contribute to bonds formed between a consumer and a shopping area. People who are more familiar with the shopping area appeared to experience a greater or stronger sense of place.

There are direct relationships between personal and situational characteristics and shopping behaviours. Hedonic shoppers spend more time in the shopping area. People shopping with company also tend to spend more time in the shopping area. People who walked to the shopping area spend less time there. Females on average visited more stores than males. The same goes for people between 26 and 50 years of age. People who came to the shopping area by public transport or by bicycle tended to visit fewer stores compared with people who came by car. People who travelled a longer distance tended to visit more stores in the shopping area.

Regarding money spent in the shopping area, we found that people who work part time and people who consider themselves as value shoppers spend less money, whereas people with a high income spend more.
DISCUSSION

Shopping area evaluation is found to be positively related to sense of place, which is in line with findings reported by Kusumowidagdo et al. (2015) and Shamsuddin and Ujang (2008). No direct relationship between shopping area evaluation and shopping behaviour is has been found. This outcome confirms our hypothesis that sense of place mediates the relationship between evaluation of shopping area characteristics and shopping behaviour (H3). It indicates that the emotional bond (sense of place) formed over time rather than the shopping area evaluation itself affects consumers’ shopping behaviour. Only if a positive evaluation results in the development of a higher sense of place, it will affect shopping behaviour. This finding is in line with the general psychological theory proposed by Mehrabian and Russell (1974), which states that the emotional state or experience (in our case of sense of place) mediates the relationship between personal and environmental characteristics and behaviour. It is also in line with earlier findings that positive experiences in shopping areas stimulate shopping behaviour (Babin & Darden, 1995; Bloch et al., 1994; Wakefield & Baker, 1998). The results partly confirm H4, as we have found that the relationship between sense of place and time spent in the shopping area is stronger for hedonic and adventure shoppers. The relationship between appreciation of shopping area characteristics and sense of place is moderated by familiarity with the shopping area.

| TABLE 4 Standardised path analysis coefficients (direct effects) |
|---------------------------------------------------------------|
| **Endogenous variables**                                      | **SA evaluation** | **Sense of place** | **Time spent** | **Stores visited** | **Money spent** |
| SA evaluation (t value)                                       | .66 (20.14)       |                   |               |                   |               |
| Sense of place (t value)                                      |                   | .21 (4.65)        | .18 (4.54)    | .19 (4.44)        |               |
| Time spent (t value)                                          |                   | .66 (17.03)       |               | .23 (4.00)        |               |
| Stores visited (t value)                                      |                   |                   |               | .25 (4.29)        |               |
| **Shopping area**                                            |                   |                   |               |                   |               |
| SA Boven ’t Y (t value)                                       | -.54 (12.20)      |                   |               |                   |               |
| SA Negen Straatjes (t value)                                  | .22 (6.54)        |                   | -.16 (3.72)   |                   |               |
| **Personal characteristics**                                  |                   |                   |               |                   |               |
| Female (t value)                                              |                   |                   |               |                   | .07 (2.00)    |
| Age 26–50 years (t value)                                     |                   |                   |               | .11 (2.97)        | .10 (2.45)    |
| Part time work (t value)                                      |                   |                   |               | -.10 (2.43)       |               |
| Single person household (t value)                             |                   | -.08 (2.38)       |               |                   |               |
| High income >€3,942 (t value)                                 |                   |                   |               | .13 (3.08)        |               |
| Adventure shopper (t value)                                   | .14 (4.26)        |                   |               | -.11 (2.72)       |               |
| Value shopper (t value)                                       |                   |                   |               |                   |               |
| Idea shopper (t value)                                        | .08 (2.37)        |                   |               |                   |               |
| **Situational characteristics**                               |                   |                   |               |                   |               |
| Hedonic (t value)                                             |                   |                   | .19 (4.34)    |                   |               |
| With company (t value)                                        |                   |                   | .32 (7.42)    |                   |               |
| Public transport (t value)                                    |                   |                   |               | -.13 (3.33)       |               |
| Walking (t value)                                             |                   |                   |               | -.19 (4.28)       |               |
| Travel distance                                               |                   |                   |               | .17 (4.48)        |               |
| **Familiarity**                                               |                   |                   |               | -.10 (2.31)       |               |
| **Interactions**                                              |                   |                   | .14 (3.14)    |                   |               |
| Sense of place × hedonic                                      |                   |                   |               | .09 (1.98)        |               |
| Sense of place × adventure shopper                            |                   |                   |               |                   |               |
| SA evaluation × familiarity                                   |                   |                   |               | .10 (3.13)        |               |
| **R²**                                                       | .29               | .64               | .33           | .55               | .39           |
The finding that single person households experienced a lesser or weaker sense of place than people who lived with a partner and/or child (ren) may be related to the fact that family members can play an important role in shaping sense of place by having shared experiences in special places that are visited together (Hay, 1988).

As expected, the results indicate that people who are more familiar with the shopping area in question experience a stronger or greater sense of place. This finding may be explained by the fact that memories and earlier experiences of a place are important for the development of a bond with the place that is developed over time (Scannell & Gifford, 2010; Williams & Kitchen, 2012). However, although we have found that people who are more familiar with the shopping area experienced a greater sense of place, we also established that Negen Straatjes attracts visitors who are less familiar with the area, but scores highest on sense of place ratings. This finding can be explained by the fact that Negen Straatjes attracts more adventure shoppers, and this shopping orientation has a pronounced and positive effect on sense of place. It is likely that the retail offer in Negen Straatjes contributes to satisfying the consumer’s desire for excitement and adventurous experiences while shopping because it mainly consists of fashion, luxury, and leisure goods and services.

The finding that hedonic shoppers spend more time in the shopping area is plausible and in line with the literature showing that consumers shopping with hedonic motives generally spend more time shopping compared with consumers shopping with utilitarian motives (Babin et al., 1994). Also, when shopping in company, people tend to spend more time in the shopping area. This finding is in line with those established by Hart and Dale (2014). Another finding that people who work part time and people who consider themselves as value shoppers spend less money is also in line with expectations.

In sum, the estimation results support the hypotheses formulated. The results indicate that there is a positive relationship between shopping area evaluation and sense of place (H1) and between sense of place and time and money spent in the shopping area and number of stores visited (H2). These relationships hold after controlling for shopping area (fixed effects), person, and situational variables. This outcome indicates that experiences of emotional bonds with a shopping area and beliefs that it reflects self-identity and satisfies a set of functional needs are positively related to shopping behaviours. In line with the model proposed by Mehrabian and Russell (1974) on environmental perception, experience, and behavioural responses, we have found evidence that the evaluation of a shopping area is indirectly related to shopping behaviour, via the experience of a sense of place. As hypothesised (H3), there is no significant direct relationship between shopping area evaluation and these shopping behaviour variables. Hence, we have concluded that sense of place is the mediating variable between shopping area evaluation and shopping behaviour. The strength of the relationship between sense of place and time expenditures is greater for hedonic and adventure shoppers (H4). The relationship between appreciation of shopping area characteristics and sense of place is stronger for consumers who are more familiar with the shopping area. Various individual characteristics, situational characteristics, and personality traits are also directly related to sense of place and shopping behaviour.

6 | LIMITATIONS AND DIRECTIONS FOR RESEARCH

While this study presents interesting findings, it also has some limitations. First, knowing that sense of place is developed over time through past experiences with a place, nevertheless we did not ask how long respondents had known the shopping area or how often they visited it. We did however ask them how familiar they were with the shopping area and used that gauge as a control variable in the model.

In addition, the use of cross-sectional data did not allow us to infer causality. We have to be aware of a possible causal loop in our model (shopping behaviour can contribute to a positive experience, thus increasing sense of place). However, sense of place is an overall experience, developed over time rather than in the moment, and therefore is likely to be present before shopping activities.

Regarding environmental stimuli, given our focus we only measured the perception and evaluation of shopping area characteristics. It is recommended that others, in the future, incorporate objective characteristics of the shopping area to analyse the separate influences the characteristics have on the experience of a sense of place. It would for instance be very interesting to study if there is a difference in sense of place between different types of shopping areas, such as indoor malls versus outdoor shopping streets. However, our sample only contains respondents from three different shopping areas, which makes it impossible for us to draw conclusions on these differences. For future research, it would be advisable to collect data in more varied shopping locations.

In addition, we collected data at shopping locations that belong within the top 10 favourite shopping areas to shop for fun by inhabitants of the Amsterdam region. To verify results, it would be useful to conduct a similar study including less favoured shopping areas and
different cities, regions, or even countries. This enlargement of focus would also make it feasible to draw preliminary conclusions about possible cultural differences regarding sense of place in shopping areas.

Finally, our findings suggest that sense of place may be especially important to enhance loyalty of consumers towards the shopping area of their choice. In future research, it would be interesting to investigate the role of sense of place in creating shopping-area loyalty.

Our data collection took place in 2017, before the COVID-19 pandemic. In March 2020, when the lockdown was announced, footfall in Dutch shopping areas dropped dramatically. The numbers have increased since the easing of physical distancing measures but have not nearly reached pre-pandemic levels (Slob, 2020). The pandemic is likely to affect sense of place in shopping areas in a negative way. For instance, the presence of other people may currently evoke feelings of fear or annoyance rather than associations of those environs with a lively atmosphere and positive sense of place. In addition, there are restrictions on shopping with company and on time spent in stores, which will also negatively affect money spent. Moreover, one’s connection to a place can be affected by disruptions such as crime, relocation, or disasters (Brown & Perkins, 1992). The pandemic could also cause such a major disruption in sense of place. Therefore, more research is needed on the ways in which COVID-19 has impacted upon shoppers’ sense of place, and strategies should be developed for shopping areas to recover from this pandemic.

7 | CONCLUSION

Although the concept of sense of place has received ample attention in the context of residential areas, it has hardly been studied in the context of retail areas. This study expanded the research on sense of place to include that context. While controlling for direct effects of individual and situational characteristics, the objective of this study has been to investigate (1) the relationship between shopping area evaluation and sense of place; (2) the relationship between sense of place and shopping behaviour in terms of time expenditures, money expenditures and store visits; (3) the absence of a direct relationship between shopping area evaluation and shopping behaviour; and (4) the moderating effect of personal and situational characteristics on these relationships.

We conclude that there is a direct and positive relationship between shopping area evaluation and sense of place. In addition, a higher sense of place experienced in a shopping area is associated with longer time expenditures, more store visits, and higher money expenditures in the shopping area. There is no direct relationship between shopping area evaluation and sense of place, only an indirect effect via sense of place. These relationships hold while controlling for direct effects of shopping area, personal characteristics, and situational characteristics. The relationship between sense of place and time expenditures is moderated by a hedonic shopping motive and an adventure shopping orientation. The relationship between appreciation of shopping area characteristics and sense of place is moderated by familiarity with the shopping area; this confirms all our hypotheses.

This study shows that sense of place is a useful concept to measure experience in shopping areas and that this measure is a better predictor of shopping behaviour than consumers’ perception and evaluation of shopping area characteristics. Whereas characteristics of a shopping area may be important to attract consumers to a location initially, the sense of place they develop over time based on experiences appears to be an important factor in determining how much time and money consumers spend in the area.

Therefore, besides offering a large variety of stores, a diversity of food and drink options and leisure options, an attractive appearance (architecture, green), traffic and social safety (maintenance, lighting, pedestrian friendliness), and accessibility, it is important for retail managers to realise that only if positive evaluations of these attributes result in the development of a stronger sense of place over time will it affect shopping behaviour. It is therefore important for retail management to focus additionally on creating a retail environment that promotes the positive experiences that contributes to the formation of a sense of place.

Hereby, all three dimensions—place attachment, identity, and dependence—seem to be equally important. In order to stimulate the place attachment dimensions, it is important to consider the emotions evoked by the shopping area. Consumers should feel comfortable, secure, and happy. City branding could be a way to promote place identity. In order to promote place dependence, it is important that a shopping area supports the consumers’ goals or desired activities by providing not only space for shopping but also space to reside and interact with others. The role of sense of place is particularly strong for hedonic and adventure shoppers regarding the amount of time they spend during a visit of the area and with that also (indirectly) the amount of money spent. Branding and campaign messages specifically focused on evoking hedonic motives and an adventurous type of shopping, therefore, can be expected to be most effective in stimulating expenditure of shoppers.
Although more research is needed on how shopping areas can stimulate the development of a high sense of place of place, this study broadens the sense-of-place literature into the context of retail environments and makes a relevant contribution to the current knowledge on experiential shopping and consumer behaviour by providing empirical evidence of the mediating role of sense of place in the relationship between shopping area evaluation and shopping behaviour.

ORCID
Pauline van den Berg https://orcid.org/0000-0003-1712-5873
Theo Arentze https://orcid.org/0000-0003-2551-8650

REFERENCES
Andajani, E. (2015). Understanding customer experience management in retailing. Procedia - Social and Behavioral Sciences, 211(Nov), 629–633. https://doi.org/10.1016/j.sbspro.2015.11.082
Arnold, M., & Reynolds, K. (2003). Hedonic shopping motivations. Journal of Retailing, 79(2), 259–268. https://doi.org/10.1016/S0022-4359(03)00007-1
Babin, B., & Darden, W. (1995). Consumer self-regulation in a retail environment. Journal of Retailing, 71(1), 47–70. https://doi.org/10.1016/0022-4359(95)90012-8
Babin, B., Darden, W., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. Journal of Consumer Research, 20(4), 644–656. https://doi.org/10.1086/209376
Baker, J., Grewal, D., & Levy, M. (1992). An experimental approach to making retail store environmental decisions. Journal of Retailing, 68(4), 445–460.
Baker, R. G., & Wood, S. (2010). Towards robust development of retail planning policy: Maintaining the viability and vitality of main street shopping precincts. Geographical Research, 48(1), 65–74. https://doi.org/10.1111/j.1745-5871.2009.00622.x
Bell, S. (1999). Image and consumer attraction to intraurban retail areas: An environmental psychology approach. Journal of Retailing and Consumer Services, 6(2), 67–78. https://doi.org/10.1016/S0969-6989(98)00015-0
Bloch, P., Ridgway, N., & Dawson, S. (1994). The shopping mall as consumer habitat. Journal of Retailing, 70(1), 23–42. https://doi.org/10.1016/0022-4359(94)90026-4
Bonaiuto, M., Breakwell, G. M., & Cano, I. (1996). Identity processes and environmental threat: The effects of nationalism and local identity upon perception of beach pollution. Journal of Community & Applied Social Psychology, 6(3), 157–175. https://doi.org/10.1002/(SICI)1099-1298(199608)6:3%3C157::AID-CASP36%3E3.0.CO;2-W
Borges, A., Chebat, J., & Babin, B. (2010). Does a companion always enhance the shopping experience? Journal of Retailing and Consumer Services, 17(4), 294–299. https://doi.org/10.1016/j.jretconserv.2010.02.007
Brown, B. B., & Perkins, D. (1992). Disruptions in place attachment. In I. Altman & S. M. Low (Eds.), Place attachment (pp. 279–304). Boston, MA: Springer US.
Chataway, M. (2020). Sense of place and feelings of safety: Examining young adults’ experiences of their local environment using mobile surveys. City & Community, 19(3), 656–675. https://doi.org/10.1111/cico.12453
Chebat, J., Haj-Salem, N., & Oliveira, S. (2014). Why shopping malls make malls different? Journal of Retailing and Consumer Services, 21(2), 77–85. https://doi.org/10.1016/j.jretconser.2013.10.002
Dane, G., Borgers, A., & Feng, T. (2019). Subjective immediate experience during large-scale cultural events in cities: A geotagging experiment. Sustainability, 11(20), 1–19. https://doi.org/10.3390/su11205698
Deutsch, K., & Goulas, K. (2009). Investigating the Impact of Sense of place on Travel Behavior Using an Intercept Survey Methodology. Paper presented at the 88th annual Transportation Research Board Meeting: TRB 2009 Annual meeting CD-ROM.
Donovan, R., Rossiter, J., Nesdale, A., & Marcoulyn, G. (1994). Store atmosphere and purchasing behavior. Journal of Retailing, 70(3), 283–294. https://doi.org/10.1016/0022-4359(94)90037-X
Donovan, R. J., & Rossiter, J. R. (1982). Store atmosphere: An environmental psychology approach. Journal of Retailing, 58(1), 34–57.
Golob, T. F. (2001). Structural equation modeling for travel behavior research. Irvine: University of California.
Gomes, R., & Paula, F. (2017). Shopping mall image: Systematic review of 40 years of research. The International Review of Retail, Distribution and Consumer Research, 27(1), 11–27. https://doi.org/10.1080/09593969.2016.1210018
Grewal, D., & Roggeveen, A. (2020). Understanding retail experiences and customer journey management. Journal of Retailing, 96(1), 3–8. https://doi.org/10.1016/j.jretai.2020.02.002
Groep, R., & Slot, J. (2014). Monitor Detailhandel. Amstterdam: Gemeente Amsterdam, Bureau Onderzoek en Statistiek.
Hart, P., & Dale, R. (2014). With or without you: The positive and negative influence of retail companions. Journal of Retailing and Consumer Services, 21(5), 780–787. https://doi.org/10.1016/j.jretconser.2014.06.004
Hay, R. B. (1988). Towards a theory of sense of place. The Trumpet, 5(4), 159–164.
Hernandez, B., Hidalgo, M., Salazar-Laplace, M., & Hess, S. (2007). Place attachment and place identity in natives and non-natives. Journal of Environmental Psychology, 27(4), 310–319. https://doi.org/10.1016/j.jenvp.2007.06.003
Hidalgo, M. C., & Hernandez, B. (2001). Place attachment: Conceptual and empirical questions. Journal of Environmental Psychology, 21(3), 273–281. https://doi.org/10.1006/jevp.2001.0221
Holbrook, M., & Hirschman, E. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. Journal of Consumer Research, 9(2), 132–140. https://doi.org/10.1086/208906
Jones, C., & Livingstone, N. (2018). The ‘online high street’ or the high street online? The implications for the urban retail hierarchy. The International Review of Retail, Distribution and Consumer Research, 28(1), 47–63. https://doi.org/10.1080/09593969.2017.1393441
Jöreskog, K., & Sörbom, D. (2001) LISREL 8.5 Scientific Software International 2001.
Jorgensen, B., & Stedman, R. (2006). A comparative analysis of predictors of sense of place dimensions: Attachment to,
dependence on, and identification with lakeshore properties. *Journal of Environmental Management, 79*(3), 316–327. https://doi.org/10.1016/j.jenvman.2005.08.003

Kusumowidagdo, K., Rembulan, C., & Sachari, A. (2015). Sense of place among adolescents: Factors influencing the place attachment on shopping malls. *Makara Hubs-Asia, 19*(2), 97–106. http://hubasia.ui.ac.id/article/view/149?fulltext=true. https://doi.org/10.7454/mssh.v19i2.3478

Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years? *Journal of Environmental Psychology, 31*(3), 207–230. https://doi.org/10.1016/j.jenvp.2010.10.001

Liu, S., & Cheung, L. (2016). Sense of place and tourism business development. *Tourism Geographies, 18*(2), 174–193. https://doi.org/10.1080/14616688.2016.1149513

Lovell, S. A., Gray, A. R., & Boucher, S. E. (2017). Place, health and perceived: A conceptualization and a pilot study. *International Journal of Environmental Research and Public Health, 14*(4), 515. https://doi.org/10.3390/ijerph14040515

Luo, S., & Zakariya, K. (2015). Place attachment and the value of place for nonmetropolitan tourism business districts. *Journal of Environmental Management, 158*. https://doi.org/10.1016/j.jenvman.2015.09.006

Markie, S., & Schwenke, V. (2016). Which of the 2,500 shopping areas in the Netherlands are affected most by corona? And why does this differ so strongly? https://locatus.com/en/blog/which-of-the-2500-shopping-areas-in-the-netherlands-are-affected-most-by-corona/

Stassart, C., Hansez, I., Delvaux, M., Depauw, B., & Etienne, A.-M. (2013). A French translation of the revised childhood anxiety sensitivity index (CASI-R): Its factor structure, reliability, and validity in a nonclinical sample of children aged 12 and 13 years old. *Psychologia Belgica, 53*(1), 57–74. http://doi.org/10.5334/pb-53-1-57

Stoei, L., Wickliffe, V., & Lee, K. (2004). Attribute beliefs and spending as antecedents to shopping value. *Journal of Business Research, 57*(10), 1067–1073. https://doi.org/10.1016/S0148-2963(03)00016-X

Tidball, K., & Stedman, R. (2013). Positive dependency and virtuous cycles: From resource dependence to resilience in urban social-ecological systems. *Ecological Economics, 86*(February), 292–299. https://doi.org/10.1016/j.ecolecon.2012.10.004

Ujang, S., & Zakariya, K. (2015). Place attachment and the value of place in the life of the users. *Procedia - Social and Behavioral Sciences, 168*(January), 373–380. https://doi.org/10.1016/j.sbspro.2014.10.243

Verhoef, P., Lemon, K., Parasuraman, A., Roggeveen, A., Tsio, M., & Schlesinger, L. (2009). Customer experience creation: Determinants, dynamics and management strategies. *Journal of Retailing, 85*(1), 31–41. https://doi.org/10.1016/j.jretai.2008.11.001

Wakefield, K., & Baker, J. (1998). Excitement at the mall: Determinants and effects on shopping response. *Journal of Retailing, 74*(4), 515–539. https://doi.org/10.1016/S0022-4359(98)00106-7

Weijs-Perrée, M., Dan, G., & van den Berg, P. E. W. (2020). Analyzing the relationships between citizens’ emotions and their momentary satisfaction in urban public spaces. *Sustainability, 12*(19), 7921. https://doi.org/10.3390/su12197921

Weijs-Perrée, M., Dan, G., van den Berg, P. E. W., & van Dorst, M. (2019). A multi-level path analysis of the relationships between the momentary satisfaction with urban spaces, momentary- and long-term subjective wellbeing. *International Journal of Environmental Research and Public Health, 16*(19), 3621. https://doi.org/10.3390/ijerph16193621

Williams, A., & Kitchen, P. (2012). Sense of place and health in Hamilton, Ontario: A case study. *Social Indicators Research, 108*(2), 257–276. https://doi.org/10.1007/s11205-012-0065-1

Williams, A., Kitchen, P., DeMiglio, L., Eyles, J., Newbold, B., & Streiner, D. (2010). Sense of place in Hamilton, Ontario: Empirical results of a neighborhood-based survey. *Urban Geography, 31*(7), 905–931. https://doi.org/10.2747/0272-3638.31.7.905

Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science, 49*(6), 830–840.