TARGETING SMART SHOPPERS: A CROSS-COUNTRY MODEL

Mónica GÓMEZ-SUÁREZ, Myriam QUINONES*, María Jesús YAGÜE

Finance and Marketing Department, Universidad Autónoma de Madrid, Madrid, Spain

Received 21 February 2019; accepted 14 November 2019

Abstract. The purpose of this article is to provide a robust and consistent cross-country measurement of the smart-shopper self-concept. Drawing on existing single-country studies, our work extends research by validating a pioneer cross-country scale that measures the smart-shopping mechanism in a holistic manner. Survey data were collected from 1,233 shoppers from six different Western countries. Cross-country equivalence was assessed using multigroup confirmatory factor analysis using configural, metric, and factor variance invariance tests. The results indicate that the smart-shopper self-concept is a second-order construct comprising two dimensions: smart-shopper-attributed behavior and smart-shopper feelings. Our findings also reveal that consumers in the different countries exhibit different degrees of smart-shopper self-concept and differ in their perceptions of the affective and behavioral responses generated during a smart purchase process. Marketing practitioners looking to target smart shoppers across multiple countries could build on the findings of this study to develop effective international segmentation and positioning strategies.

Keywords: smart shopping, smart shopper, cross-country, measurement invariance, scale development, self-concept, feeling, behavior.

JEL Classification: M30, M31, M16, F23.

Introduction

Academic studies associate smart shopping with consumers who make effective use of their buying capability, which leads to economic utility while generating a positive internal reward for the shopper (Mano & Elliott, 1997; Schindler, 1989).

The earliest empirical research on smart shopping appeared in the late 1990s. However, since the global economic crisis of 2008, this concept has become increasingly interesting to industry and the media (Atkins & Hyun, 2016), where the term “smart shopper” frequently describes shoppers who seek the thrill of deal hunting.
Smart shoppers engage in certain behaviors designed to maximize shopping value and minimize the investment of time, money, and effort (Atkins et al., 2016). They are not prone to making impulsive purchases. They make shopping lists, compare products, browse sales advertisements and make rational brand choices. (Atkins et al., 2016; Burton et al., 1998); however, smart shoppers do not solely focus on the economic benefits provided by a well-planned shopping trip. Obtaining a good deal generates a hedonic reward that often translates into a feeling of joy and pride in their shopping competence (Garretson et al., 2002; Schindler, 1998). The emotions arising from shopping experiences leave affective memory traces that consumers process to form postpurchase satisfaction (Cachero-Martínez & Vázquez-Casielles, 2017a). For smart shoppers, the positive affective response generated by a good purchase has been found to affect brand attitude, (Liu & Wang, 2008; Manzur et al., 2011), retail store preference (Labbé-Pinlon et al., 2011), promotion evaluation (Chandon et al., 2000; de Pechpeyrou, 2013), and word-of-mouth communication (Chung & Darke, 2006).

Previous research focused on smart-shopping conceptualization can be divided into two broad categories: (1) studies focused on shoppers’ behavioral traits (i.e., Atkins & Hyun, 2016; Atkins & Kim, 2012; Atkins et al., 2016; Labbé-Pinlon et al., 2011; Mano & Elliott, 1997) and (2) research works focused on consumers’ emotional response motivated by a smart purchase (i.e., Bicen & Madhavaram, 2013; de Pechpeyrou, 2013; Schindler, 1998). No prior study has considered or measured both components of the smart shopper in an integrated manner. In addition, this study is one of the first to perform a cross-country validation of the proposed model. Since the majority of members of a society share a common set of beliefs that impact their behavior (Çelikkol et al., 2019), their purchase decision process is likely to be influenced by the norms and values of their cultural group. However, to our knowledge, only two prior studies related to smart shopping have been conducted with an international sample: Chung and Darke (2006) examined the impact of smart-shopper motives on word-of-mouth communication in Canada and Singapore, while Chandon et al. (2000) compared the impact of smart-shopper feelings on the evaluation of promotion by individuals from France and the United States of America. In both cases, the researchers developed the scale in one country and subsequently applied it in another.

The purpose of this article is to provide a robust and consistent cross-country measurement of smart-shopper self-concept. Two key research questions guide this study: 1) What are the behavioral and affective characteristics that define consumers who perceive their purchases as smart? 2) Does the consumer’s country of origin lead to different valuations of these two dimensions?

To investigate the answers to these questions, this work has the following aims: first, to expand the literature by proposing a scale that measures both smart shoppers’ behaviors and feelings. Second, to test a final measurement model that advances the theoretical development of smart shopping, validating the proposed scale in a consistent manner across countries. Third, to show whether and how the smart shopper profile is different in the six countries studied (Spain, Germany, France, the United Kingdom, Italy and the USA). Fourth, to provide relevant information to practitioners who target this consumer segment across multiple countries.
This study begins with a comprehensive literature review. Following a systematic examination of previous research regarding the topic, we propose a conceptual measurement model. The methodology section first describes the data collection and analysis strategies and then reports and analyzes the key findings. Following the discussion, we provide managerial information that could be relevant to practitioners targeting smart shoppers in an international context. Finally, the conclusion section presents the limitations of this study and suggests avenues for further research.

1. Theoretical framework

This section is structured as follows. First, a conceptualization of a smart shopper is provided. Then, measurement scales developed by previous research are examined, and finally, we propose an alternative theoretical model that captures the bidimensional nature of the smart-shopper self-concept.

1.1. Conceptualization of the smart shopper

We conducted a comprehensive survey of published academic research regarding smart shopping with the goal of describing the state of this research area. This literature review reveals that the term “smart shopping” is generally associated with the smart shopper purchasing process (Labbé-Pinlon et al., 2011) but is rarely defined in an explicit manner. From a behavioral perspective, the prior research describes smart shoppers as people who make shopping lists, monitor and organize out-of-store and in-store promotional information (Mano & Elliott, 1997), have a clear concept of their needs and wait for products to go on sale before making purchases (Atkins & Kim, 2012). Consequently, smart shoppers find top-quality goods at discounted prices (Baltas, 1997; Labbé-Pinlon et al., 2011; Mano & Elliott, 1997). Like market mavens, smart shoppers willingly seek, own and share general information about products and markets.

Mano and Elliott (1997) defined smart shopping as the tendency to search for and utilize promotional information to achieve price savings. They associated the concept with consumer purchasing practices that involve the effective use of the individual’s buying skills and ultimately lead to enhanced economic utility. Atkins and Kim (2012, p. 361) offered a more comprehensive definition when they identified smart shopping as the process followed by “consumers seeking to minimize the expenditure of time, money, or energy to gain hedonic and utilitarian value from the [shopping] experience”.

Unlike price-conscious consumers, who focus exclusively on paying low prices (Batra & Sinha, 2000; Lichtenstein et al., 1993), smart shoppers do not solely seek economic benefits from shopping. Instead, they seek to obtain a more hedonic reward, which is “more subjective than its utilitarian counterpart” (Babin et al., 1994, p. 646). Researchers have identified various hedonic outputs from shopping, such as delight, fun, perceived freedom and fantasy fulfillment (Vieira et al., 2018; Babin et al., 1994). Numerous studies have shown that price shopping may be pleasurable for a variety of nonutilitarian reasons (Alba & Williams, 2013), including entertainment (Ailawadi et al., 2001), market maven self-image enhancement (Fe-
ick & Price, 1987; Ailawadi et al., 2001; Chelminski & Coulter, 2007; Litterio et al., 2017) or bargain hunting (Chandon et al., 2000; Jin & Sternquist, 2004). Baltas (1997) argues that the promise of obtaining good quality at a reasonable price leads to a “smart buy” feeling that may motivate some shoppers.

Smart shoppers engage in promotional activities and acquire items for emotional reasons associated with self-concept enhancement (Chandon et al., 2000). Schindler (1989) provided the first definition for the intrinsic positive reward derived from a good purchase, a concept that distinctly identifies smart shoppers. He defines smart-shopper feelings as “the ego-related affect, which may be generated in a consumer by a price” (Schindler, 1989, p. 448). Later, Garretson et al. (2002) used the term “smart-shopper self-perception” to identify a psychological construct pertaining to consumers’ positive feelings caused by price savings. This affective response is greater when the consumer feels a strong attribution of responsibility for obtaining better prices (Schindler, 1989).

1.2. Smart shopper measurement: attributed behaviors and feelings

As summarized in Table 1, the scales used to date focus either on the behavioral traits attributed to smart shoppers or on the internal reward that a smart purchase generates in consumers (smart-shopper feelings). However, no prior scale encompasses both components of the smart shopper.

Table 1. Smart shopper scales

| Author | Scale Dimensions and Items | Reliability | Convergent and discriminant validity tested |
|--------|---------------------------|-------------|-------------------------------------------|
| Atkins and Hyun (2016) | 21 item Likert-type scale developed by the authors. 5 dimensions. | Alpha > 0.70 | Yes |
| Atkins et al. (2016) | 34 item Likert-type scale developed by the authors. 5 dimensions. | Alpha > 0.75 | Yes |
| Atkins and Kim (2012) | 15 item Likert-type scale developed by the authors. 3 dimensions. | Alpha > 0.70 | Yes |
| Labbé-Pinlon et al. (2011) | 3 item Likert-type scale from Lombart and Belvaux (2004). Single dimension. | Lombart and Belvaux (2004) | |
| Odou et al. (2007) | Qualitative. | Qualitative | Qualitative |
| Mano and Elliott (1997) | 7 item Likert-type scale developed by the authors. Single dimension. | Alpha = 0.91 | Yes |
| Mittal (2016) | 2 item Likert-type scale based on Chandon et al. (2000). Single dimension. | Not mentioned | Not mentioned |
| Bicen and Madhavaram (2013) | Indirect scale (measured through happiness scale from Honea and Dahl (2005). 2 item Likert-type scale. Single dimension. | Alpha values ranging from 0.70 to 0.98 | Yes |
Previous research shows a lack of agreement regarding the number of dimensions of the behavior attributed to customers who make smart purchases. Two empirical studies proposed and validated a single-dimension phenomenon (Labbé-Pinlon et al., 2011; Mano & Elliott, 1997). However, Atkins and Hyun (2016), Atkins et al. (2016) and Atkins and Kim (2012) proposed a scale of the smart shopper experience that comprised multiple dimensions: information organization and correct purchase, economic savings and time/effort savings. This scale fulfills convergent, discriminant and nomological validity.

Regarding smart-shopper feelings, there is agreement on the unidimensional nature of this construct. Nevertheless, the scales used to measure this concept have different origins and varied compositions. Only three studies developed their own scales (Schindler, 1998; Burton et al., 1998; Chandon et al., 2000); the rest either adapted one of these three scales or used scales from various published studies. For example, studies in the store-brand area (e.g., Garretson et al., 2002; Liu & Wang, 2008; Manzur et al., 2011) adapted the four-item smart-shopper self-perception scale initially proposed and tested by Burton et al. (1998), which fulfills all the reliability and validity requirements. Chandon et al. (2000) generated a three-
item value expression benefit scale that was later reused by de Pechpeyrou (2013). Although they have different names, the scales by Burton et al. (1998) and Chandon et al. (2000) are semantically similar. Both allude to the intrinsic reward shoppers experience after making what they consider to be a good deal: pride in their shopping ability and a sense of having acted intelligently and feeling good about oneself. Finally, the empirical study by Schindler (1998) measured the positive response generated by a price discount through a price satisfaction scale.

Only two prior studies related to smart shoppers have worked with an international sample. In their study about the effectiveness of sales promotion, Chandon et al. (2000) compared the impact of smart-shopper feelings on the evaluation of promotions using a small student sample from France and the United States of America. Chung and Darke (2006) identified differences in word-of-mouth (WOM) communication when comparing Canadian and Singaporean shoppers and suggested that culture may affect smart shopper motivation to give WOM. None of these studies performed a cross-national validation of the measurement models proposed. Instead, the researchers developed the scale in one country and then applied it in another. Moreover, in both studies, smart-shopper feeling is a secondary objective of the research; therefore, the comparative results shed limited light on the topic in a cross-country context.

As we discuss next, given the recognition that previous researchers have identified and measured traits that maintain a basic underlying presence in smart shopping, there is a need to develop a comprehensive cross-country measure that encompasses the behavioral and affective attributes of smart shoppers and validate the scale in a consistent manner across countries.

1.3. Research questions and conceptual proposal

The smart-shopper purchase experience is a multifaceted process followed by consumers whose purchase behavior is characterized by minimizing their investments of time, money, and effort (Atkins et al., 2016) while optimizing value, which in turn generates a positive internal reward (Garretson et al., 2002). While prior studies have focused on either smart-shopper behavior or smart-shopper feelings, we suggest that to advance the theoretical development of this concept, any new measure of smart-shopper self-concept needs an integrative approach. Focusing solely on behavior or feelings may be a too narrow approach to capture the complexity of the smart-shopping experience. Therefore, we propose to develop and test a new, encompassing yet parsimonious scale that captures this duality across countries.

Specifically, the research questions that guide our work are the following: (1) Are smart-shopper feelings and smart-shopper attributed behavior two distinct dimensions of smart-shopper self-concept? (2) What are the items that best represent the behavioral and affective characteristics of smart shoppers? (3) Is the smart-shopper self-concept expressed to different degrees across nations? (4) Does the consumer’s country of origin lead to different valuations of the smart-shopper feelings and behavioral response?

The conceptual framework we propose suggests that smart-shopper-attributed behavior is a first-order construct that describes the aspects of conduct that shoppers attribute to
a purchase experience leading to a smart buy. This variable reflects on the three distinct dimensions formulated by Atkins and Kim (2012): right purchase, effort/time savings and money savings. We also theorize that the affective response motivated by a wise purchase (smart-shopper feelings) is a first-order construct that is reflected in the items proposed by the works of Burton et al. (1998), Chandon et al. (2000), Garretson et al. (2002), Manzur et al. (2011), and de Pechpeyrou (2013). Finally, we suggest that the smart-shopper self-concept is a second-order construct that reflects on smart-shopper-attributed behavior and smart-shopper feelings. The smart-shopper self-concept construct in this study is framed upon the notion that many purchases are driven by a mix of utilitarian and hedonic motives (Alba & Williams, 2013).

2. Methodology

Based upon the academic literature review and a qualitative inquiry, we created candidate scale items to conceptualize smart-shopper attributed behaviors and feelings. A pilot test conducted for scale refinement and purification purposes was followed by a main study to validate the scale.

2.1. In-depth interviews to generate items

Prior to scale generation, a qualitative study was performed to obtain consumers’ perceptions of the nature of the smart-shopping mechanism. The main goal of this qualitative inquiry was to comprehend what smart shopping means to buyers, what types of conduct lead to smart purchases and whether the participants considered themselves smart shoppers. A total of 16 in-depth interviews were conducted in cities with similar characteristics in the USA (Chicago) and Spain (Madrid). The following stratification variables were used to select the sample: gender, age and education.

Participants referred to aspects of smart shopping that could be separated into purchase behavior traits (i.e., seeking and organizing information, planning for purchases, saving money and time and obtaining the highest quality at the best possible price) and postpurchase affective benefits (i.e., feelings of happiness, excitement, increased self-esteem, wisdom and emotional reward). See Table A1 in the Appendix.

In accordance with the literature review, the qualitative study verified that smart shopping was perceived to be an organized and planned process that leads to a careful choice of brands that offer the best quality-price ratio. Smart shopping was also associated with acquiring only the goods that the shopper needs in contrast with impulse purchases made during a nonsmart shopping process.

Participants were asked whether they perceived themselves as smart shoppers. In the USA, all but one interviewee considered themselves to be smart shoppers, whereas in Spain, only two people did. The other six Spanish shoppers recognized that although they made smart purchases from time to time, they preferred to attribute smart shopping behavior to another person, such as the traditional homemaker. These results reveal the existence of different smart-shopper self-concepts between interviewees in Spain and the USA. Thus, we anticipated that cultural factors could affect smart shoppers’ self-perceptions.
2.2. Pilot study: item purification

The qualitative analyses produced an extensive list of beliefs attributed to smart-shopper behavior and feelings. Thirty-five candidate scale items were generated to reflect the dimensions of smart-shopper self-concept. To establish content validity, the items were evaluated for conformity to the theoretical definitions and redundancy. After screening the items both independently and jointly with marketing and language experts to avoid confusion and misjudgment, 25 items were retained for initial psychometric assessment: 24 of these assessed both smart-shopper feeling and attributed behavior and the last item assessed the smart-shopper self-concept (Table A2 in Appendix). Scale items not representative of the domain or that were unclear were removed.

We conducted a pilot test as an initial quantitative procedure for initial scale refinement, scale purification and content validity assessments. A total of 180 master’s degree and undergraduate students participated in the pilot study. Given that no previous research has jointly measured smart-shopper attributed behavior and feeling using a single scale, we performed an exploratory estimation to identify how the observed variables related to the underlying factors. Principal component analysis (PCA) with oblimin rotation served to examine factor patterns and relationships between items. We chose oblimin instead of orthogonal rotation because it allows for between-factor correlations (Hair et al., 2006), which was expected in the analyzed phenomenon. After examination of the factor loadings, 15 items were retained. To illustrate the PCA results, Table A2 in the Appendix shows the original 24 items; the 9 items in italics were eliminated. This appendix details all the factor loadings, explained variance, and the reasons why eliminated items were not included in the final questionnaire. Reliability was also checked for the pilot sample. Items related to time/effort savings exhibited a Cronbach’s alpha of less than 0.70, suggesting problems for future estimations.

2.3. Main study: data collection and instrument development

The data for the main study were drawn from a survey carried out simultaneously in six countries. We selected the most-developed countries on two continents, North America and Europe, in terms of their gross domestic product (GDP). According to Eurostat (2017), the top five European Union countries in terms of GDP are Germany (21.3%), the United Kingdom (15.2%), France (14.9%), Italy (11.2%) and Spain (7.6%); together, these countries account for 70% of the EU GDP. Although all the selected countries are Western, they differ in terms of their degree of masculinity/femininity, long-term orientation, power distance, individualism, uncertainty avoidance, and indulgence (The Hofstede Center, 2017). We focused on the two Hofstede dimensions that have received the most empirical attention: individualism-collectivism and power distance (Taras et al., 2010). In individualistic cultures (e.g., USA (91), UK (89), Italy (76)), people are more person-centric and appreciate uniqueness. In contrast, in collectivist societies (e.g., Spain (51)), individuals are more integrated into groups, and role obligations shape attitudes (Hofstede, 2001). People in low power distance cultures (e.g., USA (40), Germany (35), UK (35)) tend to believe that events are more influenced through their own decisions, while individuals in cultures of higher power distance
(e.g., France (68)) are less predisposed to act on their personal preferences and tend to be more concerned with the opinions of others (Hofstede, 2001).

These differences provide a stringent test of the generalizability of the conceptual model (Broderick, 2007). Moreover, the retail structures differ between Europe and the USA. Therefore, the cultural, economic and market conditions of the countries adopted for this study were considered sufficiently different to represent a wide range of developed nations.

Semantic differences were resolved using a translation/back-translation method. In addition, all the questionnaires were reviewed by a professional editing service. Data were collected using a Qualtrics panel in the six countries. This market research company maintains proprietary respondent panels. The researchers shared the entire process of designing the sample (preconditions for survey participation), ensuring the subsample sizes, replacing sample units if needed, and initial depuration.

A total of 1,272 shoppers participated in the final survey through a self-administered online questionnaire. All individuals were 18 years of age or older and responsible for the purchase of consumer-packaged goods within their respective households. After the depuration process, the final sample size for the application of the statistical procedure in this article was 1,233. Of these participants, 234 were from Spain (Mage = 46.1, SD = 13.8; 42.1% female), 205 were from Germany (Mage = 36.1, SD = 9.8; 27% female), 206 were from France (Mage = 32.4, SD = 9.26; 40.6% female), 189 were from the UK (Mage = 36.1, SD = 11.14; 53.2% female), 202 were from Italy (Mage = 36.2, SD = 9.7; 49.2% female) and 197 were from the United States (Mage = 40.1, SD = 12.3; 58.2% female). Other demographics by country can be provided to readers upon request.

Regarding the data analysis methodology, descriptive measures (mean, standard deviation), Analyses of Variance (ANOVA), Tamhane test, principal component analyses (PCA) with oblimin rotation, first-order and second-order confirmatory factor analyses (CFA), and multigroup analyses (MGCFA) were applied using SPSS and AMOS 22.0 statistical packages. Readers who may not be familiar with these statistical procedures will find a comprehensive description of the application of these techniques in the next section, including the pertinent bibliographical references.

2.4. Data analysis procedure

For the global model, descriptive analyses, means and standard deviation for all the initial items were obtained. Then a test of normality was performed, and the existing correlations between the variables were revised. Next, the homogeneity of the standard deviations of the variables was checked. Afterwards, we carried out the following steps:

Common method variance (CMV) was examined by making a previous estimation with the data using Harman’s single-factor test (Podsakoff et al., 2003). This was made through a PCA with oblimin rotation for the initial items.

A series of PCA to set the number of dimensions and items were run. As lengthy scales may be more difficult to use and closely related items may result in redundancy (Ruvio et al., 2008), we excluded the items with commonalities below 0.6.

Using the resulting configuration, we applied several successive CFA operations to set the number of dimensions for smart-shopper attributed behavior using maximum likelihood
estimation. As the theory and the partial measurement scales suggested (Jarvis et al., 2003), the dimensions were considered reflective constructs, making the items manifestations of the unobserved variable. Initially, we compared two models: one with three sub-dimensions based on Atkins and Kim (2012) and a second unidimensional model based on Mano and Elliott (1997). We chose the model with the best goodness-of-fit.

Next, we examined smart-shopper attributed behavior and smart-shopper feelings jointly to determine whether these two constructs were two distinct dimensions of smart shopping. To check again the CMV for the measurement model, we connected each indicator to a single construct in a confirmatory factor analysis rather than using two separate constructs for behavior and feeling.

We used three different methods to analyze discriminant validity. The first one was the one suggested by Fornell and Larcker (1981). This procedure consists in comparing the inter-square correlation with the AVE. If the second one is lower than the first one, the discriminant validity property is fulfilled. We also used a second procedure suggested by Anderson and Gerbin (1988) that consists in comparing the chi-square difference tests for the dimensions in pairs, to determine whether the freely estimated model (correlation estimated freely) provides a better fit to the data than does the restricted model (correlation fixed to 1). If the estimation of the restricted model yields worse results than the free model, we can conclude that there is not a lack of discriminant validity. The third procedure used to test the discriminant validity was to estimate the Heterotrait Monotrait (HTMT) ratio developed by Henseler et al. (2015). According to the authors, if this ratio exceeds a threshold of 0.85, the relationships within the same constructs are stronger than those of the indicators measuring different constructs.

Then, we estimated a final second-order model and checked the rest of the psychometric properties (composite reliability, alpha and AVE). Following the terminology of Jarvis et al. (2003), the final model represented a Type I second-order model with first-order latent constructs with reflective indicators.

Regarding the cross-country analyses, previous studies on the smart-shopping process used an emic approach, as researchers developed the scale in one country and subsequently applied it in another. As suggested by Yoo and Donthu (2001), we developed a cross-country analysis following an etic approach. To assess measurement invariance, we first estimated six individual CFA models. Then, we assessed the invariant measurement of smart-shopper behaviors and feelings across countries by applying a first-order multigroup CFA (first-order MGCFA). As a third step, we assessed the invariance of parameters, and latent means were considered through second-order multigroup CFA (second-order MGCFA). After establishing scalar invariance, latent factor means testing was conducted via MGCFA with mean structures. Following Byrne (2010), a country was taken as a reference, and its means for the three smart-shopping constructs (behavior, feeling and self-concept) were fixed to 0, imposing the equality of means restriction on the remaining countries. We repeated this process for every country to obtain the differences in the latent means of each construct. Finally, to explore country differences more deeply, we conducted multiple comparisons based on Tamhane’s test. These non-parametric tests allowed the assessment of which countries’ mean values were actually different.
3. Analysis and results

3.1. Descriptive statistics and overall CFA model

As indicated in Table 2, the means and standard deviations for all the items were above 4 on the 7-point scale. The test of normality, the revision of the existing correlations between the variables and the check for homogeneity of the standard deviations checkout showed that the variables fulfil the requirements for modeling.

Table 2. Descriptive measures

| Item   | Description                                                                 | Mean | Standard Deviation |
|--------|-----------------------------------------------------------------------------|------|--------------------|
| SBORP1 | They have a clear idea of their wants and needs                           | 5.12 | 1.80               |
| SBORP2 | They buy only what they need                                               | 4.80 | 1.70               |
| SBORP3 | They gather as much information as possible before going on shopping trips | 5.04 | 1.76               |
| SBORP4 | They use shopping lists                                                     | 4.97 | 1.84               |
| SBORP5 | They adjust to their budget                                                | 5.08 | 1.75               |
| SBES1  | They obtain a good deal on the purchase                                    | 5.06 | 1.73               |
| SBES2  | They compare brand alternatives at different prices                        | 4.96 | 1.72               |
| SBES3  | They find top-quality merchandise at reduced prices                        | 5.07 | 1.71               |
| SBES4  | They keep abreast of store sales                                           | 5.16 | 1.73               |
| SBETS1 | They look for convenient purchases                                         | 4.70 | 1.70               |
| SBETS2 | They trust word-of-mouth recommendations                                    | 4.38 | 1.70               |
| SBETS3 | They consider good service from the store                                  | 4.61 | 1.68               |
| SSF1   | I get a real sense of joy when I make a wise purchase                      | 5.05 | 1.77               |
| SSF2   | Making smart purchases makes me feel good about myself                     | 5.01 | 1.79               |
| SSF3   | I take pride in making smart purchases                                     | 4.99 | 1.76               |
| Smart  | The degree to which I consider myself a smart shopper                       | 5.17 | 1.22               |

Note: Likert scale ranging from 1 (totally disagree) to 7 (totally agree).

A PCA with oblimin rotation for the 15 initial items revealed a two-factor structure, indicating that no general factor was observed. A separate PCA to set the number of dimensions and items for smart-shopper-attributed behavior (Table 3) revealed a one-factor structure rather than the three-factor structure suggested by Atkins and Kim (2012). After excluding the three items with lower communality, the final loads that appeared in the final configuration matrix (9 items) allowed the initial identification of a unidimensional structure for the latent variable smart-shopper-attributed behavior.
Using this initial configuration, we applied successive CFA models to assess the final dimensions for smart-shopper behavior. The goodness-of-fit indexes were better for the unidimensional model based on Mano and Elliot (1997) \( \chi^2/DF = 1.79; p<0.034; CFI = 0.998; TLI = 0.994; RMSA = 0.025 \) than for the three-dimensional model based on Atkins and Kim (2012) \( \chi^2/DF = 3.86; p < 0.001; CFI = 0.986; TLI = 0.977; RMSA = 0.048 \). Therefore, the unidimensional model was chosen.

When discriminant validity was checked for this configuration following the strictest procedure (comparison of inter-square correlations with AVE), the results (Table 4) show that the squared inter-construct correlation between “organization & right purchase” (SSORP) and “economic savings” (SBES) is very high (0.857). When comparing this value with the AVE obtained for each construct (0.621 for SSORP and 0.517 for SBES), we concluded that the three-dimensional model lacks discriminant validity. Moreover, there is no discriminant validity for “effort/time savings” (SBETS) and “economic savings” (SBES).

In summary, the three-dimensional model presented worse adjustments and lacked discriminant validity compared with the unidimensional model. Given that the more complex model improved neither the goodness-of-fit nor the psychometric properties of the scale, we chose the one-dimensional smart-shopper behavior model for the subsequent estimations. As previously stated, there is agreement in the literature regarding the unidimensional nature of smart-shopper feelings (Burton et al., 1998; Schindler, 1998; Chandon et al., 2000; Garretson et al., 2002; Liu & Wang, 2008; Manzur et al., 2011).
The next step was to examine smart-shopper attributed behavior and smart-shopper feelings jointly to determine whether these two constructs are two distinct dimensions of smart shopping. To do so, we run a confirmatory factor analysis for a single construct joining feelings and behaviors. This estimation led to a significant decrease in the model’s fit. This result, together with the first check with Harman’s test, showed that CMV did not appear to be a significant problem in the present study. Moreover, the comparison of the goodness-of-fit values of the two-dimensional and one-dimensional models indicated that the unidimensional model did not present additional advantages over the two-dimensional model (index values can be provided upon request). Thus, the bidimensional structure of smart-shopper self-concept was established (behavioral and affective).

The scale fulfilled all the psychometric requirements for validity and reliability. Following the same procedure as before, the square inter-construct correlation was 0.716, which was higher than the AVEs for behavior (0.583) and feeling (0.594). These results suggest a potential lack of discriminant validity in the measurement model. Therefore, we also checked the discriminant validity with the other two procedures described in the methodology section. First, we compared the chi-square difference tests for the two dimensions in pairs. The estimation of the restricted model offered a worse estimation than did the free model (non-significant $\chi^2$ with $p = 0.034$ and normed chi-square = 1.323). Moreover, the correlations among all the variables did not include the unit value. In our case, the HTMT was 0.952, indicating high discriminant validity for this model.

To sum up, although there was a higher correlation of the model with two dimensions, we did not appreciate a severe lack of discriminant validity. This higher correlation between constructs reveals the possible existence of a higher-order construct, which is reflected in the dimensions of smart-shopper attributed behavior and smart-shopper feelings. An indicator that measured the degree to which individuals consider themselves smart shoppers when they make a purchase decision captured this second-order construct called smart-shopper self-concept.

The comparison of the goodness-of-fit indicators determined which model was better (the second-order model vs. the first-order model). Both presented non-significant $p$-values for $\chi^2$. However, although the alternative model was less parsimonious, it produced a significantly better estimation ($\Delta \chi^2 = -33.6; \Delta df = 1$). This result led us to accept the proposed alternative model.

Table 5 shows the standardized coefficients of the final second-order model as well as the psychometric properties (composite reliability, alpha and AVE) of the bi-dimensional CFA model. It is a second-order model with first-order latent constructs (smart-shopper attributed behavior (SB) and smart-shopper feeling (SF)) with reflective indicators. These first-order constructs were indicators of an underlying second-order construct (SMART). The measures of goodness-of-fit indicated very high model accuracy ($\chi^2/DF = 1.07; p = 0.37; CFI = 0.99; TLI = 0.99; RMSA = 0.008$).

Each indicator and all the relationships between constructs were significant. In this second-order model (Figure 1), the smart-shopper self-concept was reflected in the indicator that measured the degree to which consumers considered themselves smart shoppers ($\lambda = 0.646$). The smart-shopper self-concept was also reflected in two dimensions: smart-shopper
attributed behavior ($\lambda = 0.857$) and smart-shopper feelings ($\lambda = 0.978$). Smart-shopper feelings are reflected in items that represent emotions shoppers experience when making smart purchases: *feeling good about oneself* ($\lambda = 0.799$), *pride in their shopping ability* ($\lambda = 0.760$) and *joy* ($\lambda = 0.733$). Smart-shopper behavior was reflected in indicators such as information seeking and organization (putting *effort into gathering commercial information* ($\lambda = 0.764$)), making the right purchase (a *clear idea of needs* ($\lambda = 0.804$)), money savings (obtaining *good deals* ($\lambda = 0.732$) and *keeping abreast of sales* ($\lambda = 0.752$)).

Table 5. Smart shopping second-order model

| Construct/Item | Construct | Description | Estimate | C.R. | P     | Comp. | AVE | Alpha |
|----------------|-----------|-------------|----------|------|-------|-------|-----|-------|
| SBORP3         | BEHAVIOR  | They gather as much information as possible before going on shopping trips | 0.764    | 23.789 | ***   |       |     |       |
| SBORP1         | BEHAVIOR  | They have a clear idea of their wants and needs | 0.804    | 23.156 | ***   | 0.848 | 0.583| 0.856 |
| SBES1          | BEHAVIOR  | They get a good deal on the purchase | 0.732    |       |       |       |     |       |
| SBES4          | BEHAVIOR  | They keep abreast of store sales | 0.752    | 23.845 | ***   |       |     |       |
| SSF3           | FEELING   | I take pride in making smart purchases | 0.760    | 26.374 | ***   |       |     |       |
| SSF2           | FEELING   | Making smart purchases makes me feel good about myself | 0.799    | 23.806 | ***   | 0.854 | 0.594| 0.856 |
| SSF1           | FEELING   | I get a real sense of joy when I make a wise purchase | 0.733    |       |       |       |     |       |
| DEGREE_1       | SMART     | The degree to which I consider myself a smart shopper | 0.646    | 13.273 | ***   |       |     |       |
| BEHAVIOR       | SMART     |                | 0.857    |       |       |       |     |       |
| FEELING        | SMART     |                | 0.978    | 13.833 | ***   |       |     |       |

Goodness-of-fit indexes: $\chi^2/df = 1.074$ ($p = 0.377$); CFI = 0.999; TLI = 0.999; RMSA = 0.008

Note: Significance level: *** $p < 0.001$. 
3.2. Cross-country analyses: MGCFA models

Table 6 presents the descriptive measures for each country and the factor loadings when estimating CFA for every country. The normed $\chi^2$ values for the six models were all lower than the suggested cutoff of 2.0 (Tabachnick & Fidell, 2007). Convergent validity was evident for each construct across the six countries because all the factor loadings were significant ($p < 0.001$) and $\geq 0.60$. Regarding the other psychometric properties, the AVE values were satisfactory ($\geq 0.50$), and all composite reliability values $\geq 0.60$ (the smallest was 0.754).

Table 7 demonstrates configural invariance (Model 1), metric invariance (Model 2) and scalar invariance (Model 3).

Table 8 shows the results of the comparison between the second-order metric invariant model (Model 4) and the model that additionally included a cross-group constraint on the variance (Model 5: variance invariance). The results indicated that the second-order MGCFA was considered invariant between the groups of countries ($\Delta \chi^2 = -5.672; p = 0.842; \Delta \text{CFI} = -0.001; \Delta \text{TLI} = -0.008; \Delta \text{RMSA} = 0.001$).

After establishing scalar invariance, latent factor means testing was conducted via MGCFA with mean structures. Following Byrne (2010), a country was taken as a reference, and its means for the three smart-shopping constructs (behavior, feeling and self-concept) were fixed to 0, imposing the equality of means restriction on the remaining countries. We repeated this process for every country to obtain the differences in the latent means of each construct. Table A3 of the Appendix shows all these latent mean differences. The results indicate that most of the differences in latent means between pairs of countries were significant, except for the following pairs of countries: Spain-UK and UK-Italy.

Tamhane’s test results are presented in Table 9. The findings showed the greatest heterogeneity in mean values for the subsamples from France, Germany and the USA.
Table 6. Descriptive statistics, factor loadings and ANOVA for the six countries

| Item                                                   | Spain Mean | SD  | Load | Germany Mean | SD  | Load | France Mean | SD  | Load | UK Mean | SD  | Load | Italy Mean | SD  | Load | USA Mean | SD  | Load | F      |
|--------------------------------------------------------|------------|-----|------|--------------|-----|------|-------------|-----|------|---------|-----|------|------------|-----|------|---------|-----|------|--------|
| They gather as much information as possible           | 5.00       | 1.68| 0.742| 4.85         | 1.79| 0.606| 4.21        | 1.73| 0.741| 5.39    | 1.75| 0.865| 5.20       | 1.60| 0.775| 5.58    | 1.72| 0.836| 15.92*** |
| They have a clear idea of their wants and needs       | 5.30       | 1.79| 0.832| 4.76         | 1.80| 0.748| 4.33        | 1.93| 0.766| 5.27    | 1.81| 0.835| 5.32       | 1.54| 0.821| 5.66    | 1.65| 0.879| 14.92*** |
| They obtain a good deal on the purchase               | 5.00       | 1.70| 0.676| 4.71         | 1.80| 0.743| 4.25        | 1.73| 0.743| 5.39    | 1.69| 0.803| 5.22       | 1.46| 0.754| 5.77    | 1.62| 0.827| 20.33*** |
| They keep abreast of store sales                      | 5.28       | 1.64| 0.683| 4.82         | 1.83| 0.786| 4.43        | 1.80| 0.723| 5.33    | 1.77| 0.781| 5.20       | 1.49| 0.723| 5.86    | 1.56| 0.876| 16.57*** |
| I take pride in making smart purchases               | 5.00       | 1.73| 0.821| 4.74         | 1.70| 0.715| 4.24        | 1.91| 0.623| 5.13    | 1.77| 0.792| 5.29       | 1.53| 0.752| 5.56    | 1.62| 0.765| 14.33*** |
| I get a real sense of joy when I make a wise purchase| 5.09       | 1.69| 0.800| 4.90         | 1.79| 0.771| 4.44        | 1.76| 0.821| 5.09    | 1.82| 0.865| 5.18       | 1.73| 0.723| 5.61    | 1.63| 0.818| 9.71***  |
| Making smart purchases makes me feel good about myself| 5.25       | 1.60| 0.846| 4.29         | 1.82| 0.650| 4.17        | 1.86| 0.680| 5.24    | 1.73| 0.879| 5.39       | 1.58| 0.781| 5.67    | 1.65| 0.861| 26.38*** |

Note: Significance level: *** p < 0.001.
Table 7. Cross-cultural measurement invariance tests

| Model                     | $\chi^2$ | DF  | P     | $\chi^2$/DF | TLI  | CFI  | RMSEA |
|---------------------------|----------|-----|-------|--------------|------|------|-------|
| Model 1 Configural Invariance | 70.199   | 120 | 0.020 | 1.462        | 0.987| 0.995| 0.019 |
| Model 2 Full Metric Invariance | 99.676   | 95  | 0.021 | 1.365        | 0.989| 0.994| 0.017 |
| Model 3 Scalar Invariance   | 123.994  | 80  | 0.007 | 1.409        | 0.988| 0.992| 0.018 |

Model Comparison

| Model Comparison | $\Delta\chi^2$ | $\Delta$DF | P     | $\Delta\chi^2$/DF | $\Delta$TLI | $\Delta$CFI | $\Delta$RMSEA |
|-----------------|----------------|------------|-------|-------------------|-------------|-------------|---------------|
| Model 2–Model 1 | 29.477         | 25         | 0.244 | -0.097            | 0.002       | -0.001      | -0.002        |
| Model 3–Model 2 | 24.318         | 15         | 0.071 | 0.044             | -0.001      | -0.002      | 0.001         |

Table 8. Second-order MGCFA comparison of fit indexes

| Model Comparison | DF  | P     | $\Delta\chi^2$/df | $\Delta$TLI | $\Delta$CFI | $\Delta$RMSEA | $\Delta\chi^2$ |
|-----------------|-----|-------|-------------------|-------------|-------------|---------------|---------------|
| Metric Invariance (Model 4) vs. Scalar Invariance (Model 5) | -10 | 0.842 | 0.198             | -0.008      | -0.001      | 0.001         | -5.672        |

Table 9. Differences between countries: multiple comparisons test

| Country | Compared with... | Self-Concept Construct |
|---------|-----------------|------------------------|
| Spain   | Germany         | 0.30433*               |
|         | France          | 0.67971*               |
|         | UK              | -0.07836               |
|         | Italy           | -0.07056               |
|         | USA             | -0.42834*              |
|         | Spain           | -0.30433*              |
|         | France          | 0.37538*               |
|         | UK              | -0.38269*              |
|         | Italy           | -0.37489*              |
|         | USA             | -0.73267*              |
| Germany | Spain           | -0.30433*              |
|         | France          | 0.37538*               |
|         | UK              | -0.75807*              |
|         | Italy           | -0.75027*              |
|         | USA             | -1.10805*              |
| France  | Spain           | -0.67971*              |
|         | Germany         | -0.37538*              |
|         | UK              | -0.75807*              |
|         | Italy           | -0.75027*              |
|         | USA             | -1.10805*              |
| Country | Compared with… | Self-Concept Construct |
|---------|----------------|------------------------|
| UK      | Spain          | 0.07836                |
|         | Germany        | 0.38269*               |
|         | France         | 0.75807*               |
|         | Italy          | 0.00780                |
|         | USA            | -0.34998*              |
| Italy   | Spain          | 0.07056                |
|         | Germany        | 0.37489*               |
|         | France         | 0.75027*               |
|         | UK             | -0.00780               |
|         | USA            | -0.35778*              |
| USA     | Spain          | 0.42834*               |
|         | Germany        | 0.73267*               |
|         | France         | 1.10805*               |
|         | UK             | 0.34998*               |
|         | Italy          | 0.35778*               |

4. Discussion

This study describes the development of a scale that jointly measures the behavioral and affective dimensions of smart shopping across countries. The qualitative study served as an exploratory analysis that surfaced aspects of smart shopping beyond those identified through the literature review that were later contrasted through the scale generation process. The study has relevant theoretical and practical implications that benefit consumer research in several ways.

First, the measurement developed by our research should prove useful in developing and testing smart-shopping theory in an international context. Our 2-dimensional, 8-item scale shows that smart-shopper attributed behavior and smart-shopper feelings are two distinct dimensions of smart shopper self-concept. In line with the work of Schindler (1998), Garretson et al. (2002) and Manzur et al. (2011), our research confirms the unidimensional nature of the smart-shopper feelings construct. Regarding the number of dimensions of smart-shopper attributed-behavior, our results show that a three-dimensional model (Atkins et al., 2012) improved neither the goodness-of-fit nor the psychometric properties of the scale, compared to the one-dimensional smart-shopper behavior model (Mano & Elliott, 1997).

Second, our scale suggests that the smart shopper is a consumer who exhibits buying patterns characterized by searching for and organizing commercial information, acquiring products that fit their needs, searching for offers and deals, waiting for sales and obtaining discounts. Consistent with preceding research that proposes that consumers’ purchase decisions are oriented by the emotional aspects of shopping as much as their utilitarian considerations (Castro-López et al., 2019; Alba & Williams, 2013), our scale suggests that a smart buy that shoppers can attribute to their shopping capability rewards their ego
through feelings of self-esteem, pride and joy. While it is beyond the scope of this article to develop specific hypotheses, value assessed by our scale is quite likely to influence evaluations of brands considered while shopping (Garretson et al., 2002; Manzur et al., 2011; Authors, 2019). Potential scale applications might contribute to the literature helping identify a segment of consumers who exhibit a smart-shopper self-concept. This segmentation issue is relevant to firms and researchers that are interested in more effectively targeting at specific consumer segments.

Third, our work extends (predominantly mono-country) research on smart shopping by providing empirical evidence to support that the smart-shopper profile exists in France, Germany, UK, Spain, Italy and the USA, although it is expressed to different degrees across nations. Buyers from the USA show the highest values for smart-shopper self-concept, while French and German shoppers have the lowest scores. Consumers from Spain, Italy and the UK appear to be quite similar regarding smart-shopper self-attribution. Given that most of the differences in latent means between pairs of countries are significant, our scale allows for valid country-to-country comparisons for all the constructs (behavior, feeling and self-concept). For example, when taking Spain as the reference country, the USA is the country for which all the constructs (behavior, feeling and self-concept) reach their highest values, whereas France presents the lowest latent means. When Germany is taken as the reference country, significant differences with the UK and Italy can also be observed. British and Italian participants have higher estimated scores for smart-shopper feeling and behavior than do the German participants. A potential explanation for Germany’s lower smart-shopper self-concept values might be that German shoppers tend to expect purchases to be highly convenient and worth their money (Seitz et al., 2017); therefore, obtaining a good deal might not make them feel particularly smart. Given that the values that individuals acquire in their cultural environment have been found to significantly influence their smart-shopper self-concept (Authors, 2019), we hope this scale can facilitate consumer researchers’ investigation of the influence of country of origin on smart shopping.

From a managerial perspective, our research offers several practical contributions. First, the results indicate that marketers should consider the importance of information seeking and organization to smart shoppers. Tools such as apps and wish lists that help find, organize and compare promotional information could be useful for targeting this customer segment. In-store merchandising activities and product assortment could be designed to generate a treasure hunt feeling that could translate into a positive intellectual experience (Cachero-Martínez & Vázquez-Casielles, 2017b), which in turn would enhance the smart-shopper self-concept.

Second, this study shows that smart shoppers experience joy and pride when they conclude a good purchase that they can attribute to their shopping ability. Therefore, when implementing a communication mix strategy aimed at this segment, managers could use messages and media designed to help smart shoppers feel like efficient deal hunters and anticipate the intrinsic reward associated with obtaining a discount. Given that shopping experiences which deliver hedonic value have been found to influence loyalty and word-of-mouth communication (Vieira et al., 2018; Bulut & Karabulut, 2018), smart shoppers should be offered ways and be encouraged to search and share WOM messages about brands and companies.
Third, the results suggest that despite differences among smart shoppers in various countries, there are common underlying cross-country characteristics. Our findings indicate that corporations operating in the six countries included in this study could perform transnational segmentation as well as a certain amount of communication standardization.

Conclusions

This study provides a robust and consistent cross-country measurement of the smart-shopper self-concept. The authors proposed and tested a parsimonious smart-shopping scale that jointly measures the behavioral and affective dimensions of smart shopping using a sample of 1,233 consumers from six Western countries. The study included a comprehensive literature review, in-depth interviews for initial item generation and instrument development. The scale development consisted of a pilot and a main study.

Because no previous research has analyzed and measured smart shopping in a manner that could offer evidence of conceptual and measurement equivalence across nations, our scale is a promising method for explaining smart shoppers’ behaviors and feelings in a consistent and valid manner. Detailed descriptions of the scales previously used to measure smart shopping is another important contribution of this research.

This study also analyzed whether buyer nationality affects the degree to which consumers perceive themselves to be smart shoppers and the intensity of this reflection in their feelings and behaviors. The results confirm that the smart-shopper profile exists in the six countries studied, although country specific differences exist.

Future research could address the limitations of this study. To improve the generalizability of the findings, further replication could be developed, including countries with larger cultural differences than those in the six countries included in this study. The products that were the subject of this study were frequently purchased products. Researchers could also focus on product categories that require more complex buying behavior.

The effects of smart shopping on different variables that reflect postpurchase behaviors, such as WOM communication, brand commitment and loyalty, could also be an interesting future line of research. Finally, the focus of this study was to identify and measure the behavioral and effective traits that maintain a simultaneous underlying presence in smart shoppers. However, it would be advisable to study alternative models that explore the causal relationships between smart shopper behavior and feelings.

Overall, this study sheds light on the understudied smart shopper concept and offers a new reliable and valid measure for the smart-shopper self-concept that contributes to the theoretical development of this construct. This study should also improve managers’ understanding of how consumers across countries behave and feel when they believe they are shopping intelligently. The suggestions for improvement highlighted above should help researchers develop new theoretically robust and managerially applicable smart-shopping theories.
Acknowledgements

This research was supported by the Spanish Ministry of Economy and Competitiveness; Research Project Reference ECO2015-69103-R. It was also conducted under the framework of the TECHNOCOM UAM research group (E-38) (Universidad Autónoma de Madrid).

References

Ailawadi, K. L., Neslin, S. A., & Gedenk, K. (2001). Pursuing the value-conscious consumer: Store brands versus national brand promotions. *Journal of Marketing, 65*(1), 71–89. https://doi.org/10.1509/jmkg.65.1.71.18132

Alba, J. W., & Williams, E. F. (2013). Pleasure principles: A review of research on hedonic consumption. *Journal of Consumer Psychology, 23*(1), 2–18. https://doi.org/10.1016/j.jcps.2012.07.003

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411–423. https://doi.org/10.1037/0033-2909.103.3.411

Atkins, K. G., & Hyun, S.-Y. J. (2016). Smart shoppers’ purchasing experiences: Functions of product type, gender, and generation. *International Journal of Marketing Studies, 8*(2), 1–2. https://doi.org/10.5539/ijms.v8n2p1

Atkins, K. G., & Kim, Y. K. (2012). Smart shopping: Conceptualization and measurement. *International Journal of Retail & Distribution Management, 40*(5), 360–375. https://doi.org/10.1108/09590551211222349

Atkins, K. G., Kumar, A., & Kim, Y.-K. (2016). Smart grocery shopper segments. *Journal of International Consumer Marketing, 28*(1), 42–53. https://doi.org/10.1080/08961530.2015.1082080

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research, 20*(4), 644–656. https://doi.org/10.1086/209376

Baltas, G. (1997). Determinants of store brand choice: A behavioral analysis. *Journal of Product & Brand Management, 6*(5), 315–324. https://doi.org/10.1108/10610429710179480

Batra, R., & Sinha, I. (2000). Consumer-level factors moderating the success of private label brands. *Journal of Retailing, 76*(2), 175–191. https://doi.org/10.1016/S0022-4359(00)00027-0

Bicen, P., & Madhavaram, S. (2013). Research on smart shopper feelings: An extension. *Journal of Marketing Theory and Practice, 21*(2), 221–234. https://doi.org/10.2753/MTP1069-6679210207

Broderick, A. J. (2007). A cross-national study of the individual and national–cultural nomological network of consumer involvement. *Psychology and Marketing, 24*(4), 343–374. https://doi.org/10.1002/mar.20164

Bulut, Z. A., & Karabulut, A. N. (2018). Examining the role of two aspects of eWOM in online repurchase intention: An integrated trust-loyalty perspective. *Journal of Consumer Behavior, 17*(4), 407–417. https://doi.org/10.1002/cb.1721

Burton, S., Lichtenstein, D. R., Netemeyer, R. G., & Garretson, J. A. (1998). A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates. *Journal of the Academy of Marketing Science, 26*(4), 293–306. https://doi.org/10.1177/00920700398264003

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.

Cachero-Martinez, S., & Vázquez-Casielles, R. (2017a). Stimulating curiosity and consumer experience in a retailer. *American Journal of Industrial and Business Management, 7*(4), 473–486. https://doi.org/10.4236/ajibm.2017.74034
Cachero-Martínez, S., & Vázquez-Casielles, R. (2017b). Living positive experiences in store: How it influences shopping experience value and satisfaction? *Journal of Business Economics and Management, 18*(3), 537–553. https://doi.org/10.3846/16111699.2017.1292311

Castro-López, A., Vázquez-Casielles, R., & Puente, J. (2019). How to manage the online experience concerning transactional and experimental customers: Case of e-fashion sector. *Journal of Economics and Management, 20*(3), 595–617. https://doi.org/10.3846/ijem.2019.10180

Çelikkol, M., Kitapçlı, H., & Döven, G. (2019). Culture's impact on entrepreneurship & interaction effect of economic development level: An 81-country study. *Journal of Business Economics and Management, 20*(4), 777–797. https://doi.org/10.3846/jbem.2019.10180

Chelminski, P., & Coulter, R. A. (2007). On market mavens and consumer self-confidence: A cross-cultural study. *Psychology and Marketing, 24*(1), 69–91. https://doi.org/10.1002/mar.20153

Chung, C. M. Y., & Darke, P. R. (2006). The consumer as advocate: Self-relevance, culture, and word-of-mouth. *Marketing Letters, 17*(4), 269–279. https://doi.org/10.1007/s11002-006-8426-7

Darke, P. R., & Dahl, D. W. (2003). Fairness and discounts: The subjective value of a bargain. *Journal of Consumer Psychology, 13*(3), 328–338. https://doi.org/10.1207/S15327663JCP1303_13

de Pechpeyrou, P. (2013). Virtual bundling with quantity discounts: When low purchase price does not lead to smart-shopper feelings. *Psychology & Marketing, 30*(8), 707–723. https://doi.org/10.1002/mar.20639

Eurostat. (2017). *Share in EU GDP total, 2017*. https://ec.europa.eu/eurostat/web/products-eurostat-news/

Feick, L. F., & Price, L. L. (1987). The market maven: A diffuser of marketplace information. *Journal of Marketing, 51*(1), 83–97. https://doi.org/10.2307/1251146

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Garretson, J. A., Fisher, D., & Burton, S. (2002). Antecedents of private label attitude and national brand promotion attitude: Similarities and differences. *Journal of Retailing, 78*(2), 91–99. https://doi.org/10.1016/S0022-4359(02)00071-4

Groepel-Klein, A., Thelen, E., & Antretter, C. (1999). The impact of shopping motives on store-assessment. *ACR European Advances, 4*, 63–72.

Hair, J. F., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate data analysis*. Pearson Prentice Hall.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hofstede, G. (2001). *Cultures consequences. Comparing values, behaviors, institutions and organizations across nations*. Sage Publications.

Honea, H., & Dahl, D. W. (2005). The promotion affect scale: Defining the affective dimensions of promotion. *Journal of Business Research, 58*(4), 543–551. https://doi.org/10.1016/S0148-2963(03)00145-0

Jarvis, C. B., MacKenzie, S. B., & Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research, 30*(2), 199–218. https://doi.org/10.1086/376806

Jin, B., & Sternquist, B. (2004). Shopping is truly a joy. *The Service Industries Journal, 24*(6), 1–18. https://doi.org/10.1080/02642060404200299158
Labbé-Pinlon, B., Lombart, C., & Louis, D. (2011). Les smart shoppers: Profils et reactions de ces acheteurs «malins» face à des réductions de prix immédiates [The smart shoppers: Their profiles and reactions to immediate price reductions]. *Management & Avenir, 49*(9), 62–83. [https://doi.org/10.3917/mav.049.0062](https://doi.org/10.3917/mav.049.0062)

Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: A field study. *Journal of Marketing Research, 30*(2), 234–245. [https://doi.org/10.1177/002224379303000208](https://doi.org/10.1177/002224379303000208)

Litterio, A. M., Nantes, E. A., Larrosa, J. M., & Gómez, L. J. (2017). Marketing and social networks: A criterion for detecting opinion leaders. *European Journal of Management and Business Economics, 26*(3), 347–366. [https://doi.org/10.1016/j.ejmbbe.2017.05.003](https://doi.org/10.1016/j.ejmbbe.2017.05.003)

Liu, T. C., & Wang, C. Y. (2008). Factors affecting attitudes toward private labels and promoted brands. *Journal of Marketing Management, 24*(3–4), 283–298. [https://doi.org/10.1362/026725708X306103](https://doi.org/10.1362/026725708X306103)

Lombart, C., & Belvaux, B. (2004). Pour une réintégration du rôle du prix dans le comportement de shopping: mesure des orientations d’achat et typologie [For an integration of the role of price in shopping behavior: measures of purchase orientations and typologies]. In *Actes du 20ème Congrès International de l'Association Française du Marketing*. Saint Malo.

Mano, H., & Elliott, M. T. (1997). Smart shopping: The origins and consequences of price savings. *ACR North American Advances, 24*, 504–511.

Manzur, E., Olavarrieta, S., Hidalgo, P., Farias, P., & Uribe, R. (2011). Store brand and national brand promotion attitudes antecedents. *Journal of Business Research, 64*(3), 286–291. [https://doi.org/10.1016/j.jbusres.2009.11.014](https://doi.org/10.1016/j.jbusres.2009.11.014)

Mittal, B. (2016). Psychographics of comparison shoppers. *Journal of Consumer Marketing, 33*(1), 20–31. [https://doi.org/10.1108/JCM-12-2014-1268](https://doi.org/10.1108/JCM-12-2014-1268)

Odou, P., Djelassi, S., & Belvaux, B. (Eds.). (2007). *Le smart shopper revisité par la perspective de la "consumer culture theory": Cas des ODRistes*. Paper Presented at the Actes Des 12e Journées de Recherche en Marketing de Bourgogne (pp. 1–17). France, Dijon.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. [https://doi.org/10.1037/0021-9010.88.5.879](https://doi.org/10.1037/0021-9010.88.5.879)

Ruvio, A., Shoham, A., & Brenčič, M. M. (2008). Consumers’ need for uniqueness: Short-form scale development and cross-cultural validation. *International Marketing Review, 25*(1), 33–53. [https://doi.org/10.1108/02651330810851872](https://doi.org/10.1108/02651330810851872)

Schindler, R. M. (1989). The excitement of getting a bargain: Some hypotheses concerning the origins and effects of smart-shopper feelings. *Advances in Consumer Research, 16*, 447–453.

Schindler, R. M. (1998). Consequences of perceiving oneself as responsible for obtaining a discount: Evidence for smart-shopper feelings. *Journal of Consumer Psychology, 7*(4), 371–392. [https://doi.org/10.1207/s15327663jcp0704_04](https://doi.org/10.1207/s15327663jcp0704_04)

Seitz, C., Pokrivčák, J., Tóth, M., & Plevný, M. (2017). Online grocery retailing in Germany: An explorative analysis. *Journal of Business Economics and Management, 18*(6), 1243–1263. [https://doi.org/10.3846/16111699.2017.1410218](https://doi.org/10.3846/16111699.2017.1410218)

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Allyn and Bacon Company.

Taras, V., Kirkman, B. L., & Steel, P. (2010). Examining the impact of culture's consequences: A three decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions. *Journal of Applied Psychology, 95*(5), 405–439. [https://doi.org/10.1037/a0020939](https://doi.org/10.1037/a0020939)

The Hofstede Center. (2017). *Strategy, culture, change*. [https://geert-hofstede.com/countries.html](https://geert-hofstede.com/countries.html)

Vieira, V., Oliveira, F., & Falcao, C. (2018). A meta-analytic review of hedonic and utilitarian shopping values. *Journal of Consumer Marketing, 25*(4), 426–437. [https://doi.org/10.1108/JCM-08-2016-1914](https://doi.org/10.1108/JCM-08-2016-1914)
Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), 1–14. https://doi.org/10.1016/S0148-2963(99)00098-3

## APPENDIX

Table A1. Key information gathered in the in-depth interviews

| Affective Traits (Feeling/Emotions)                                                                 |
|--------------------------------------------------------------------------------------------------|
| Smart shoppers (SS) are efficient and are responsible for obtaining a discount.                    |
| SS are value conscious                                                                          |
| SS feel pride in their perceived shopping capability                                             |
| SS experience hedonic benefits generated by price savings.                                      |

| Behavioral Traits                                                                                 |
|--------------------------------------------------------------------------------------------------|
| *SS look for top-quality products at discounted prices.*                                           |
| *SS engage in store browsing.*                                                                    |
| *SS compare products, formats and prices.*                                                        |
| *SS are not highly prone to impulsive buying. They make shopping lists, and they make rational brand choices.* |
| *Brand is not the most important product attribute for SS*                                         |
| *SS monitor out-of-store and in-store promotional information.*                                    |
| *SS search and organize store coupons.*                                                           |
| *SS pay attention to sales promotions in the media.*                                              |
| *SS purchase what they are looking for and what fits their needs.*                                |
Table A2. Pilot study: principal component analysis results

| Construct                                      | Original scale                                                                 | Description                                                                 | Item  | SSF Feeling | SSB3 Effort/Time savings | SSB2 Economic savings | SSB1 Org. & Right Purchase | Reason for exclusion          |
|------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|-------------|--------------------------|------------------------|-----------------------------|------------------------------|
| SMART-SHOPPER FEELING                          | Burton et al. (1998); Chandon et al. (2000); de Pechpeyrou (2013); Manzur et al. (2011) | I get a real sense of joy when I make a wise purchase                        | SSF1  | 0.862       |                          |                        |                             |                              |
|                                                |                                                                                 | When I go shopping, I take pride in making smart purchases                   | SSF3  | 0.823       |                          |                        |                             |                              |
|                                                |                                                                                 | Making smart purchases makes me feel good about myself                       | SSF2  | 0.739       |                          |                        |                             |                              |
|                                                |                                                                                 | I have a sense of achievement when they feel they have made the best buy    | SSF4  | 0.731       |                          |                        |                             | Lowers reliability (alpha)   |
|                                                |                                                                                 | When I shop smartly, I feel like a winner                                    | SSF5  | 0.728       |                          |                        | Lowers reliability (alpha)   |
| SMART-SHOPPER BEHAVIOR: EFFORT/TIME SAVINGS    | Groeppe-Klein et al. (1999); Chung and Darke (2006); Atkins and Kim (2012); Bicen and Madhavaram (2013) | They look for convenient purchases                                           | SBETS1| 0.609       |                          |                        |                             |
|                                                |                                                                                 | They take into account good service form the store                           | SBETS3| 0.564       |                          |                        |                             |
|                                                |                                                                                 | They trust word-of-mouth recommendations                                     | SBETS2| 0.496       |                          |                        |                             |
|                                                |                                                                                 | They make the purchase quickly                                               | SBETS4| 0.393       |                          |                        | Lowers reliability (alpha)   |
| SMART-SHOPPER BEHAVIOR: ECONOMIC SAVINGS       | Mano and Elliott (1997); Atkins and Kim (2012)                                | They compare brand alternatives at different prices                          | SBES2 | 0.836       |                          |                        |                             |
|                                                |                                                                                 | They find top-quality merchandise at reduced prices                          | SBES3 | 0.741       |                          |                        |                             |
|                                                |                                                                                 | They get a good deal on the purchase                                         | SBES1 | 0.678       |                          |                        |                             |
|                                                |                                                                                 | They keep abreast of store sales                                            | SBES4 | 0.670       |                          |                        |                             |
|                                                |                                                                                 | They always buy in more than one grocery store to spend less money           | SBES5 | 0.583       |                          |                        | Low commonality & loads     |
| Construct | Original scale | Description | Item | SSF Feeling | SSB3 Effort/Time savings | SSB2 Economic savings | SSB1 Org. & Right Purchase | Reason for exclusion |
|-----------|----------------|-------------|------|-------------|--------------------------|----------------------|--------------------------|----------------------|
| SMART-SHOPPER BEHAVIOR: ORGANIZATION & RIGHT PURCHASE | Mano and Elliott (1997); Atkins and Kim (2012) | When they buy a product, they always try to maximize quality for the money they pay. | SBES6 | SSF | 0.550 |  |  | Low commonality & loads |
| | | They are willing to make an extra effort to get lower prices | SBES7 |  | 0.505 |  |  | Low commonality & loads |
| | | When they buy a product, they always try to maximize quality for the money they pay. | SBES8 |  | 0.461 |  |  | Low commonality & loads |
| | | They always compare prices of at least a few brands before they choose one. | SBES9 |  | 0.427 |  |  | Low commonality & loads |
| | | They buy only what they need | SBORP2 |  | 0.713 |  |  |  |
| | | They gather as much information as possible before going on shopping trips | SBORP3 |  | 0.686 |  |  |  |
| | | They adjust to their budget | SBORP5 |  | 0.641 |  |  |  |
| | | They use shopping lists | SBORP4 |  | 0.592 |  |  |  |
| | | They have a clear idea of their wants and needs | SBORP1 |  | 0.590 |  |  |  |
| | | They have good memory for prices and brands | SBORP6 |  | 0.552 |  |  | Low commonality & loads |
| SATURATION SQUARE SUM AFTER OBLIMIN ROTATION | | | | 9.659 | 4.335 | 7.569 | 5.578 |  |
| % ACCUMULATED VARIANCE EXTRACTED | | | | 44.651 | 49.797 | 54.250 | 58.647 |  |

Note: The 9 items in italics were eliminated.
Table A3. Latent means structures

| Constructs    | Germany       | France       | UK           | Italy         | USA           |
|---------------|---------------|--------------|--------------|---------------|---------------|
| SELF-CONCEPT  | −0.111***     | −0.361***    | 0.076        | 0.088         | 0.203***      |
| BEHAVIOR      | −0.298***     | −0.773***    | 0.244        | 0.132         | 0.653***      |
| FEELING       | −0.394***     | −0.682***    | 0.093        | 0.219***      | 0.505***      |

Reference: Spain. Latent means for Spain has a value = 0 as a reference value

| Constructs    | France       | UK           | Italy         | USA           |
|---------------|--------------|--------------|---------------|---------------|
| SELF-CONCEPT  | −0.152*      | 0.233***     | 0.275***      | 0.327***      |
| BEHAVIOR      | −0.317*      | 0.688***     | 0.545***      | 1.097***      |
| FEELING       | −0.232*      | 0.571***     | 0.633***      | 0.966***      |

Reference: Germany. Latent means for Germany has a value = 0 as a reference value

| Constructs    | France       | Italy         | USA           |
|---------------|--------------|---------------|---------------|
| SELF-CONCEPT  | 0.385***     | 0.478***      | 0.452***      |
| BEHAVIOR      | 1.071***     | 0.915***      | 1.475***      |
| FEELING       | 0.900***     | 0.942***      | 1.304***      |

Reference: France. Latent means for France has a value = 0 as a reference value

| Constructs    | Italy         | USA           |
|---------------|---------------|---------------|
| SELF-CONCEPT  | 0.042         | 0.171***      |
| BEHAVIOR      | −0.001        | 0.502***      |
| FEELING       | 0.202         | 0.486***      |

Reference: UK. Latent means for UK has a value = 0 as a reference value

| Constructs    | USA           |
|---------------|---------------|
| SELF-CONCEPT  | 0.162***      |
| BEHAVIOR      | 0.561***      |
| FEELING       | 0.296***      |

Reference: Italy. Latent means for Italy have values = 0 as the reference value.

Note: Significance level: *** p < 0.001; ** p < 0.01; * p < 0.05.