

# A pursuit to identify brick-and-mortar and online consumer decision-making styles that are globally relevant

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## ABSTRACT

This cross-country comparison of consumer decision-making styles for brick-and-mortar and online shopping was inspired by notable changes in the marketplace. Conflicting evidence of the popularity of brick-and-mortar versus online shopping globally and the emergence of the so-called “global consumer” are increasingly questioning our understanding of consumers’ behaviour in the marketplace, challenging ways retailers can optimise their service offering to meet consumers’ needs. Extensive research on consumers’ decision-styles, conducted over more than three decades, aiming to indicate how consumers cognitively and emotionally deal with shopping decisions, have produced conflicting findings, further complicating retailers’ predicament. This quantitative survey was conducted before the COVID-19 pandemic in 2019 and involved South African (N=1495) and German adults (N=1344) as representatives of a developing and developed economy. The Sproles and Kendall (1986) Consumer Styles Inventory served as the point of departure to identify the prevailing consumer decision styles for the respective shopping modes in both countries. Data analysis was conducted separately for the two countries, using Exploratory Factor Analysis, t-tests/Anova, and relevant reliability measures. For the first time, this study presents consumer decision-making styles for brick-and-mortar and online shopping that concur for both countries, having achieved satisfactory internal consistency for the final factors. Particularly noteworthy for retailers is that “Perfectionism” is the most important decision style irrespective of the shopping mode. This translates as a prioritisation of trusted, good-quality products. A concern raised is the confusion experienced in physical stores due to the array of products and apparent impulsiveness when shopping online, which suggests consumer-friendly rather than product-oriented approaches by retailers to reduce consumers’ cognitive dissonance. The findings suggest that the so-called “global consumer” is not a far-fetched idea, as consumers’ needs and behaviour are more consistent than different despite demographic and geographic differences.

**Keywords:** consumer decision-making styles, shopping styles, brick-and-mortar shopping, online shopping, global consumer, demographic differences

## INTRODUCTION

Changes in consumers’ shopping behaviour, particularly an increase in online (OL) shopping, contributed to the mass closure of shopping malls in the US since the early 2010s. Omni-channel retailing that integrates online shopping and physical retailing in brick-and-mortar (B&M) stores then seemed a viable alternative for retailers to retain their presence in the market. Forecasts of “the end of the High Street” in Britain (Martin 2018) were aggravated by the COVID-19 pandemic that raised even more questions about the future of B&M stores. Although alarming, the permanent closure of many major stores in Western countries during the pandemic was not surprising (Hult, Sharma, Morgeson & Zhang 2019: 10; Business Insider 2020). Globally, around 16% of all retail transactions are conducted online (Daniel 2020).

In comparison, in South Africa, online sales represented merely 1.4% of the total retail market in 2018 during the pre-COVID-19 period, just before this study was conducted. Spurred by COVID-19 induced lockdowns, online retail more than doubled to around 4% in 2020 in South Africa (Business Insider SA, May 2021). According to a Mastercard survey on consumer spending (Mastercard Engagement Bureau 2020), 68% of South African consumers have increased their online shopping since the onset of the COVID-19 pandemic. Still, while this upward trajectory in online sales is expected to continue, the pace is likely to slow down after the Coronavirus-induced boom. Therefore, notwithstanding considerable growth in online retail in South Africa since 2020, its e-commerce market still lags behind the global curve (Daniel, 2020).

Admittedly, the Fourth Industrial Revolution determines how people live in today's digital era, which is bound to change retail environments forever (Schulze 2019). The surge in online shopping during the COVID-19 pandemic has simply fast-forwarded the predictions of global changes in the marketplace and related measures to accommodate online shopping (Barari, Ross & Surachartkumtonkun 2020: 53). With an increase in OL shopping, the term "global consumer" has become more pronounced, as consumers now have easy access to service providers across the world. For retailers, online retailing implies considerable financial benefits, such as reducing overhead costs to manage and maintain physical retail spaces, employing less personnel, and lower operating costs (Ye, Lau & Teo 2018: 658). Inconsistencies, however, exist. Amidst a definite increase in online shopping worldwide, with undeniable associated advantages for both consumers and retailers, B&M shopping still offers attractive benefits that consumers find difficult to resist (Worldwide share of e-commerce sales 2015 - 2024). Indications are that consumers find it easier to recall B&M store environments due to consistency in branding, signage, and store layout (Ainsworth & Foster 2017: 28).

Moreover, modern retailing in physical stores is associated with personalised customer service, the opportunity to socially interact and exercise - particularly in large shopping malls - to enjoy live entertainment and sensory stimuli as part of experiential retailing, and to appreciate skilfully crafted store atmospherics (Retief, Erasmus & Petzer 2018: 2). Based on year-on-year performance figures of the past century, the Financial Mail (Muller 2021) has confirmed physical stores' popularity in South Africa, despite the economic slump caused by COVID-19 lockdowns. Existing retail space per person in the USA, Canada, and Germany, also indicate that B&M shopping is still an option to be reckoned with (Nicasio, 2020). Therefore, declining shopping malls may merely be a natural market correction due to the overproduction of malls in the past. Notwithstanding impressive growth in OL shopping, globally, more than 85% of consumer purchases still occur in physical stores (Souiden, Ladhari & Chiadmi 2019: 286; Worldwide share of e-commerce sales 2015-2024). Consequently, the complexity of explaining consumers' behaviour and needs poses many challenges to retailers, especially for OL retailers who want to attract global customers (Ye et al. 2018: 659).

One way to understand consumers' behaviour in the marketplace is to focus on their decision-styles (CDS) that culminate in their cognitive and affective appraisal of different purchase situations, whether physically shopping in brick-and-mortar stores (B&M) or online (OL). Research spanning more than three decades since introducing the Consumer Styles Inventory (CSI) of Sproles and Kendall in 1986 indicates that researchers have paid considerable attention to this phenomenon. Conflicting findings, however, do not accommodate the current situation where both OL and B&M shopping should be acknowledged and a reality where consumers can now shop online across borders. Therefore, the so-called contextual differences mentioned in previous research and previous concerns about the CSI (Bakewell & Mitchell 2006: 1299; Lysonski, Durvasula & Zotos 1996: 19; Mitchell & Walsh 2004: 345; Potgieter, Wiese & Strasheim 2013: 11; Radder, Li & Pietersen 2006: 20) are worth noting. Williams, Brown, and Onsman (2012: 2) ascribe disparities in previous research to differences in studies' objectives, language issues, contextual differences, and differences in scale content. Some studies have included up to 40 items per instrument, eventually producing as many as 15 consumer decision-making styles (CDS) (Musika 2018: 37-49). Researchers concur that contextual differences have to date, complicated the alignment of the results of previous CDS research performed in developed countries (Bakewell & Mitchell 2006: 1297; Lysonski et al. 1996: 19; Mitchell & Walsh 2004: 345), with results originating from developing contexts (Potgieter et al. 2013: 11; Radder et al. 2006: 20). Influences such as cultural and societal values and views, the advancement of both physical and online retail in a particular country, and a country's economic development may jeopardise the suitability of the original Sproles and Kendall (1986) CSI when applied in different contexts (Andersson, Hallberg & Ingfors 2016: 42). Given the considerable changes in retail and

consumers' shopping behaviour in recent years and the clouding of the applicability of the original CSI in the current global context - where the future of B&M stores seems uncertain and contextual differences are vast - a comparison of CDS across countries has become very complex, yet worthy to pursue.

This quantitative, cross-sectional, pre-COVID-19 research project was conducted to compare the prevailing CDS of consumers in an emerging country, namely South Africa, with a Western country where OL shopping is well established. Germany was a convenient choice, firstly for logistical reasons, as one of the researchers was operating in Germany, frequently travelling to South Africa for academic purposes. This facilitated a hands-on approach with data gathering and simultaneous data analysis for the two countries. Secondly, Germany represented the second-largest e-commerce market in Europe in 2019, when the study was conducted, also being the fifth largest e-commerce market globally. An impressive 84% of Germany's population had done internet shopping before the COVID-19 pandemic, and it was expected to increase to 95% by 2020 (Preus 2020). This growth was not expected to be negatively affected by external influences such as Brexit, with the top-selling product categories being clothing, furniture, and beauty and personal products. The apparent differences in consumers' shopping behaviour in South Africa (RSA) and Germany (FRG), the latter a Western country where online shopping is well-established, therefore seemed plausible to represent an emerging and a developed country, respectively, for the simultaneous comparison envisaged in this research.

The study aimed to distinguish and compare the relevant CDS for B&M and OL shopping, respectively, across the two countries, as an indication of the sought-after characteristics that would retain consumers' interest and address their needs (Chen, Chen & Lin 2012: 176; Hänninen 2019: 380; Zhou Pereira & Yu 2010: 45). Therefore, the CDS were to be identified independently for the two countries' two shopping scenarios (B&M and OL). Apart from being 18 years or older, the only pre-requisite for participation in the study was that individuals had to have had personal experience of both shopping contexts within the preceding six months. Respondents had to reflect on a shopping scenario in a physical store (B&M) versus shopping online (OL) in general, irrespective of whether a particular retailer offered both shopping options and what respondents preferred or primarily employed. Previous research had only reported on consumers' CDS without attending to the relative importance of the different CDS, indicating consumers' needs. By also suggesting the prominence of the various CDS in different geographic and shopping contexts, this research aimed to highlight similarities and differences of significance, to indicate a possible existence of universal traits associated with the so-called "global consumer". Such evidence could enhance retailers' understanding of their customers. Furthermore, evidence of significant demographic differences within the respective contexts would explicate different consumer segments' behaviour in the marketplace. Subsequently, three research questions directed the research:

- How do the consumers' CDS in South Africa, an emerging economy, and Germany, a typical developed economy, compare for B&M and OL shopping?
- How do the most prevalent CDS for B&M and OL shopping compare across the two countries?
- Which distinct demographic differences in consumers' CDS should be noted for the respective countries to facilitate retailers' efforts to augment consumers' shopping experiences in the diverse shopping contexts?

The following section provides the theoretical foundation for the research that followed a deducto-hypothetico approach, allowing hypotheses to be deduced from established research. The research methodology is presented, followed by an explication of the data analysis, and the presentation and discussion of results. Theoretical contributions of the findings are presented to expand an understanding of CDS in a globalised consumer world. Limitations are acknowledged, along with suggestions for future research.

## CONCEPTUAL DEVELOPMENT AND RESEARCH HYPOTHESES

### THE EMERGENCE OF ONLINE SHOPPING

In 1979, Michael Aldrich used Videotext technology - a two-way message service - to introduce the idea of e-commerce in the form of online shopping. In 1984, the first-ever shopper to buy online completed a transaction at Tesco in the USA, where after online shopping escalated to other companies. In 1991, with the commercialisation of the Internet, online shopping took the world by storm, expanding retail and marketing to levels that have inspired scholars' interest (Thomas 2015). In 2018, an estimated 1.8 billion people worldwide purchased goods online, and global e-retail sales soared to 2.8 trillion US dollars, with a projected growth of up to 4.8 trillion US dollars by 2021 (Clement 2019). A study by Deloitte across 19 countries indicated that 87% of executives believed that forthcoming changes in business associated with the digital era would be beneficial. However, only 14% were confident that their organisations were ready to harness this technological revolution at the time (Viljoen 2018). Another concern was whether consumers from different parts of the world were equally equipped to deal with the envisaged changes in retailing, specifically online shopping that were not equally established across the globe (Bigcommerce 2018).

Countries such as South Africa have made massive investments to support the rapid adoption of new shopping channels, including mobile and Instagram shopping, while most established OL retailers have intensified their digital presence (Businesstech 2019). In emerging economies such as South Africa, however, OL shopping is more prevalent among higher-income, higher-educated consumers who have access to the appropriate technology and are competent to use it (Effective Measure 2017). Unfortunately, generalisable evidence concerning consumers' online consumer decision-making styles (OLCDS), which is essential to address consumers' needs aptly in a global context, is still lacking.

### RELATED RESEARCH AND THE RELEVANCE OF THE CSI IN DIVERSE CONTEXTS

The CSI of Sproles and Kendall (1986) aimed to depict consumers' decision-making styles (CDS), particularly in B&M contexts, proposing the instrument as a tool to investigate consumers' behaviour in the marketplace. The CSI followed a consumer characteristics approach (Lysonski et al. 1996: 10) and acknowledged different cognitive and affective dimensions of consumer decision-making to indicate how consumers deal with decisions in the shopping environment. Eight CDS were distinguished, namely: *Perfectionism/Quality consciousness*; *Brand consciousness*; *Price and value for money consciousness*; *Novelty-fashion consciousness*; *Recreational and hedonistic consciousness*; *Confusion by over choice*; *Impulsiveness/carelessness*; and *Habitual/brand loyalty* (Sproles & Kendall 1986). Accordingly, a consumer's predominant CDS reveals a person's regard for specific evaluative criteria and appreciation of some aspects of the shopping environment (Potgieter et al. 2013: 12).

CDS research is invaluable in creating awareness of the relationship between cues in the retail context and consumers' thought and behavioural processes while shopping (Chen et al. 2012: 175; Karimi, Papamichail & Holland 2015: 138; Sproles & Kendall 1986). A predominant CDS indicates how consumers deal with shopping endeavours, cognitively and emotionally. For example, when the prevailing CDS of a particular consumer market signals perfectionism, customers are likely to investigate product specifications more diligently and expect access to various product information formats. In reality, more than one CDS might be prominent at any point in time, providing more precise guidelines as to how consumers can be expected to operate. So-called perfectionists may, for example, also have a relatively strong sense of *recreational and hedonistic consciousness* (Bakewell & Mitchell 2006: 1298). They may also place a high premium on ease of shopping and a pleasurable shopping encounter derived from a logic store layout or web design with intelligent product presentations. Differences may also be observed among different demographic subsets of a particular market segment, in that, a specific CDS may be more typical of females or young consumers (Musika 2018: 112; Potgieter et al. 2013: 24; Radder et al. 2006: 29). A South African survey conducted by OneDayOnly, involving near 6,000 adults, concluded that almost 62% of online shoppers in the country are between 25 and 44 years of age, therefore Millennials (Daniel, 2020).

A scrutiny of the original CSI revealed that the reliability statistics of the scales were borderline for certain factors ( $Cr \alpha < 0.60$ ), possibly contributing to conflicting findings of later studies (Musika 2018: 112; Potgieter et al. 2013: 25; Radder et al. 2006: 29). The four-country comparison of Lysonski et al. (1996: 10) that involved respondents from New Zealand, Britain, the US, and India, provided compelling evidence concerning context-specific differences, although questioning the reliability of the dimensions of the CSI (Sproles & Kendall 1986) across different contexts. They concluded that consumers' choices are influenced by prevailing conditions and a country's level of economic development and made a pertinent plea for the original scale to be validated in different contexts. Over time, several studies have voiced similar concerns. Radder et al. (2006: 21), who involved Caucasian, Chinese, and Motswana university students in South Africa, could only confirm three common CDS across the different population groups, questioning the general applicability of the original CSI (Sproles & Kendall 1986) that was based on a relatively small sample of US students. A South African study by Potgieter et al. (2013: 11) explored demographic differences in the CDS of adults when purchasing general household items and identified ten CDS, of which only six concurred with the original CSI (Sproles & Kendall 1986). Conflicting evidence was also reported by Alavi, Rezaei, Valaei, and Ismail (2015: 300) when studying consumers' shopping styles in B&M stores in Malaysia and Kuala Lumpur. A cross-cultural comparison of the CDS of German and Indian consumers in B&M contexts revealed that the CSI still seemed more appropriate for application in developed countries like Germany, despite significant progress in India (Mehta & Dixit 2016: 207). Ample evidence, therefore, exists that the original CSI is context-specific and not a universal measurement instrument (Andersson et al. 2016: 39-42; Tanksale, Neelam & Venkatachalam 2014: 211). Over time, several scholars have hence reported different combinations and a range of alternative CDS to explain shoppers' behaviour in the marketplace, such as *Time and energy-conserving* (Bakewell & Mitchell 2006: 1298; Hafstrom, Chae & Chung 1992: 156; Walsh, Thurau, Mitchell & Wiedman 2001: 129); *Information utilisation* (Walsh et al. 2001: 129); *Confused*; *Time-restricted*; *Store loyal*; *Lower price seeking*; *Store promiscuous*; *Bargain seeking*; and *Imperfection* (Bakewell & Mitchell 2006: 1300). Scholars' quest to extend the CSI to be more applicable in emerging countries (Kavas & Yesilada 2007: 83; Park, Yu & Zhou 2010: 437) therefore seems valid.

Subsequently, this study proposed that:

**H1: The prevailing CDS of consumers in emerging and developed countries differ, more specifically:**

**H1.1: Consumers' CDS for B&M shopping in South Africa (RSA), an emerging economy, differ from consumers' CDS for B&M shopping in Germany (FRG), a typical developed country.**

Several attempts have also been made to apply the CSI to online (OL) shopping, thus identifying relevant online consumer decision styles (OLCDS). Considering the recent growth in OL shopping, this issue has not yet attracted the attention it deserves to expand literature. Cowart and Goldsmith's (2007: 639) study among US students with sample characteristics similar to the original study of Sproles and Kendall (1986) for B&M shopping could not confirm the same dimensions for OL shopping. Neither could more recent attempts (Goswami & Khan 2016: 309; Sam & Chatwin 2015: 106) produce a reliable measuring instrument for broader investigations of consumers' OLCDS. Sam and Chatwin (2015: 102) ventured into an alternative 20-item OLCDS inventory in a Chinese context, which distinguished seven OLCDS, of which only four reminded of the original CSI. The researchers deliberately eliminated specific dimensions of the original CSI in their study, reducing the original scale items from 40 to ten to rather include items about web design, website content, and product portability, totaling 20 items. A study conducted in India also modified the scale dimensions from the start (Kharea, Khareb, Mukherjeea, Goyala 2016: 31).

Acknowledging conflicting evidence from previous research, this study proposed that:

**H1.2: Consumers' OLCDS in South Africa (RSA), an emerging economy, differ from the OLCDS that prevail in Germany (FRG), a typical developed country.**

Due to differences in B&M and OL shopping, the study proposed that:

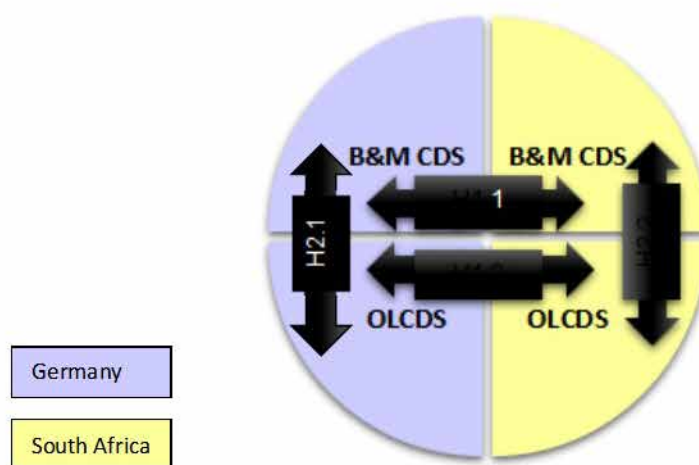
**H2: Within a specific geographic location, specifically in South Africa and in Germany, the prevailing CDS of consumers differ for B&M and OL shopping, therefore:**

**H2.1: The prevailing CDS of RSA consumers for B&M shopping differs from their OLCDS.**

**H2.2: The prevailing CDS of FRG consumers for B&M shopping differs from their OLCDS**

Figure 1 visually depicts hypotheses 1 and 2.

**FIGURE 1**  
**SCHEMATIC REPRESENTATION OF HYPOTHESES H1 AND H2**



## DEMOGRAPHIC DIFFERENCES IN CONSUMERS' DECISION-MAKING STYLES

Several studies have reported demographic differences in consumers' CDS, for example, the study by Mehta and Dixit (2016: 207) that compared Indian and German consumers; the study of Mishra (2010: 60) performed in India; the South African studies by Musasa and Moodley (2020: 98), as well as Potgieter and co-workers (2013: 11); and the Botswana study conducted earlier by Sangodoyin and Makgosa (2014: 52). Other South African studies indicated that CDS could be related to the product category, the relative complexity of the purchase, and consumers' risk perception (Olyott 2018: 104; Potgieter et al. 2013: 26). Also, researchers have speculated that a particular consumer does not consistently apply one CDM style to conduct different shopping decisions, for example, demonstrating different CDS for clothing and grocery purchases (Olyott 2018: 72; Wesley, Lehw & Woodside 2006: 545). In terms of **gender differences**, studies have reported that CDS related to *Perfectionism*, *Brand consciousness*, *Confusion due to over choice*, and *Impulsiveness* are not gender-specific (Hanzaee & Aghasibeig 2008: 534 [conducted in Iran]; Mokhlis & Salleh 2009: 582 [conducted in Malaysia]; Sangodoyin & Makgosa 2014: 50 [conducted in Botswana]). Time-related issues are processed differently by males and females (Bakshi 2012: 6 [conducted in India]; Chen et al. 2012: 180 [conducted in Taiwan]) in that females generally devote more time to shopping, and are also more *Recreational*, *Novelty-* and *Fashion conscious* (Walsh et al. 2001: 129 [conducted in Germany]). Concerning **age differences** in consumers' CDS, findings have been inconsistent, as reported in a study conducted in the United Kingdom (Bakewell & Mitchell 2006: 1298). Indications are that younger consumers enjoy shopping more, spend more time shopping, and are more willing to try out novel products (Lambert-Pandraud & Laurent 2010: 119 [conducted in France]). Regarding **education level differences**, especially younger adults with higher education levels in Jordan (Al-jawazneh & Ali Smadi 2011: 246, 248) and India, respectively (Mishra 2010: 60), are more *Quality conscious*, *Price-conscious*, *Impulsive*, *Confused by over choice*, and *Brand conscious*. Income level differences that may impose restrictions

on consumers' shopping behaviour were excluded in this research discussion to focus on more comparable criteria across the two contexts. Although the research instrument of this research stipulated income categories for the two countries based, an income comparison across the two countries did not make sense eventually as the respective countries' so-called low-, middle-, and high-income levels are vastly different due to differences between emerging and more affluent, developed markets such as Germany: according to the World Bank Group, Germany has a Gini coefficient of 31.7, compared to a figure of 63.0 for South Africa (World Population Review 2021).

Based on the above discussion, the following hypotheses were proposed:

**H3: Significant demographic differences exist in consumers' application of the relevant CDS for B&M and OL shopping in South Africa as well as in Germany, more specifically:**

**H3.1: Concerning consumers' CDS for B&M shopping, significant demographic differences exist within the two countries, specifically (H3.1.1) gender; (H3.1.2) age; and (H3.1.3) education level differences.**

**H3.2 Concerning consumers' OLCDS, significant demographic differences exist within the two countries, specifically (H3.2.1) gender, (H3.2.2) age (H3.2.3), and education level differences.**

## RESEARCH METHODOLOGY

The research was driven by the notion that consumers can now shop online across borders amidst diverse frames of reference that direct the so-called 'global consumers' shopping behaviour. This cross-sectional study adopted a positivistic approach. The Research Ethics Committee of the Faculty of Natural and Agricultural Sciences, University of Pretoria, approved the research (reference number EC170220-104). Through a survey that implemented a structured questionnaire, quantitative data were gathered to statistically distinguish and compare consumers' consumer decision styles for B&M and OL shopping in the two countries. Germany represented a typically developed, financially stable economy with well-developed infrastructure, where online shopping is well-established across the population (Preus 2020). South Africa, in contrast, represented an emerging economy where online shopping has not yet gained momentum to reach full potential (Worldwide share of e-commerce sales 2015-2024), and the erection of new shopping malls across the country signifies support for B&M shopping. This was later confirmed, despite COVID-19 lockdowns (Muller 2021).

## INSTRUMENT DESIGN

The structured questionnaire was a collaborative undertaking of scholars from both countries. This study intended to compare consumers' CDS in a single exercise for B&M and OL shopping in both countries. Due to the scope and comparative nature of the study, the length of the questionnaire had to be limited. Following a critical review of previous studies, the researchers concluded that the original CSI excluded dimensions relating to store design, visual display, and accessibility. The additional elements included by Sam and Chatwin (2015: 106) to explore OLCDS, after randomly excluding other elements from the original CSI, would have complicated the comparison of consumers' CDS for B&M and OL shopping, as the point of departure differed vastly. Instead, this research departed from the original CSI scale content (Sproles & Kendall 1986: 267) for both shopping modes. One concern in the questionnaire design was that previous research could not agree on the number of dimensions (CDS) that aptly constitute the CSI for B&M shopping (Musika 2018: 54). Bergkvist and Rossiter's (2007: 177) recommendations were followed to enhance the predictive validity of the instrument, namely to reduce the length of the questionnaire to limit repetition and subsequent respondent boredom while completing the questions. Therefore, the researchers critically assessed the original CSI scale items to retain fewer items and try to even out the number of items per dimension while valuing the original dimensions. A recent study (Olyott 2018: 35) conducted in South Africa across three product categories guided the item selection, relying on favourable reliability statistics (Cronbach's  $\alpha > 0.75$ ) reported in the study across several

outputs. In cases where an over-representation of items existed for specific scale dimensions, such as *Perfectionism*, the four items with the highest factor loadings without cross-loading during factor analysis were retained. Reverse coded statements were rephrased to prevent confusion, particularly for *Impulsiveness/carelessness* and *Enjoyment*. No reference was made to any product category.

The final questionnaire distinguished separate B&M and OL shopping sections, containing a similar but shuffled list of 21 identical statements for each shopping scenario, anchored by a five-increment "Agreement" rating scale. However, the items' wording was slightly adapted to specify B&M or OL shopping, and instructions were rephrased for each set of questions to prevent misinterpretation.

Demographic information was captured at the end of the questionnaire, distinguishing between gender groups, four age categories, and three comparable education levels for the two countries. The English version of the questionnaire was translated into German and back-translated to verify the content. Pretests were run with 30 respondents in each country to ensure clarity of instructions, constructs, and scale items. Minor adjustments were made to the cover page of the questionnaire to restrict participation to individuals of at least 18 years of age with B&M and OL shopping experience.

## **DATA COLLECTION**

Trained fieldworkers distributed structured, hard copy questionnaires simultaneously across densely populated urban areas in Baden-Württemberg, Germany, and Gauteng, South Africa, to recruit diverse samples under the researchers' supervision. Due to time and resource constraints, non-random convenience sampling was employed in both countries. Trained fieldworkers in both countries were purposively assigned to recruit a large, diverse sample from selected residential areas that differed in socioeconomic status. They were instructed to recruit a diverse spectrum of willing respondents, aged 18 years and older, not targeting close-by neighbours, and drop down hard copies of the questionnaires at individuals' residences or workplaces for completion in their own time, for collection per appointment within three days. Data collection was completed after three weeks in both countries. Through snowballing, electronic copies of the questionnaire were later distributed to increase the representation of older, higher-income, highly educated respondents in the German sample. All the respondents participated willingly and could withdraw anytime, without penalty. The final sample sizes (RSA: N = 1345; FRG: N = 1493) were comparable in terms of gender, but additional efforts did not resolve age, income, and education level imbalances in the German sample adequately. Due to the relatively large sample sizes and because demographic subsets were adequate for statistical analysis, the two data sets were accepted, noting imbalances for the sake of interpretation of the results. Table 1 presents the demographic characteristics of both countries.



**TABLE 1:  
DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE FOR BOTH COUNTRIES**

Characteristics	South Africa (N=1345)		Germany (N=1493)	
	RSA (n)	RSA (%)	FRG (n)	FRG (%)
<b>Gender</b>				
Male	590	43.87	603	40.39
Female	752	55.91	883	59.14
Missing	3	0.22	7	0.47
<b>Age (years)</b>				
Up to 29	382	28.40	935	62.63
30-39	282	20.97	189	12.66
40-59	466	34.65	298	19.96
60 and more	212	15.76	71	4.76
Missing	3	0.22	0	0
<b>Education level</b>				
< Grade 12/ Abitur	330	24.54	1103	73.88
Gr 12 + B Degr, dipl	600	44.61	244	16.34
Post grad	401	29.81	142	9.51
Missing	14	1.04	4	0.27
<b>Household Income</b>				
<R10 000/ 1.000 €	220	16.36	532	35.63
R10 000- R29 999/ 1.000 -2.999 €	418	31.08	634	42.46
R30 000- R49 999/ 3.000- 3.999 €	318	23.64	141	9.44
≥R50 000/ ≥4.000 €	305	22.68	179	11.99
Missing	84	6.25	3	0.20
<b>Total</b>	<b>1345</b>	<b>100</b>	<b>1493</b>	<b>100</b>

(At the time of the study, 1€ ≥ R16)

## DATA ANALYSIS AND FINDINGS

Respondents' CDS for B&M and OL shopping for the two countries were explored separately for each country, using basic descriptive statistical analyses followed by exploratory factor analysis (EFA), t-tests and ANOVA, and reliability testing. Principal Component Analysis with Varimax Rotation and Kaiser Normalization (Pallant 2007:190; Williams et al. 2012: 1) served to identify the least number of CDS/factors for both shopping modes per country that correlated well. Bartlett's test of Sphericity was significant ( $p = 0.000$ ), and the Kaiser-Meyer-Olkin (KMO) measure of adequacy at 0.8 indicated that analysis of the data to identify the relevant CDS could proceed. T-tests, ANOVA, and post hoc Bonferroni tests were used to distinguish significant demographic differences.

### B&M CDS AND THEIR RELEVANCE FOR THE TWO COUNTRIES

After five iterations each, five similar factor solutions emerged for the two countries for B&M shopping. Of the 21 questionnaire items, 19 were retained with satisfactory reliability statistics (Overall RSA:  $Cr \alpha = 0.85$ ; % Variance explained: 66.8%; Overall FRG:  $Cr \alpha = 0.79$ ; % Variance explained: 63.2%). One item in the FRG configuration for F3: "Sometimes it is hard to choose where (which stores) to shop", had a factor loading of 0.347. Based on a Cronbach's  $\alpha = 0.74$  for the factor, the decision was made not to delete the item as it made sense to honour the corresponding factor content for the two countries, particularly because all the other factors' contents concurred. This similarity between the factor solutions for the two countries was encouraging, amidst critique raised against the original CSI, and poor outcomes reported in previous investigations with reliability coefficients  $<0.07$  for up to four factors in different contexts (e.g., Bakewell & Mitchell 2006: 1299; Hanzaae & Aghasibeig 2008: 534, 535; Mokhlis &

Saleh 2009: 583; Nayeem 2012: 50; Potgieter et al. 2013: 25; Sangodoyin & Makgosa 2014: 50). The factor solutions for both countries are presented in Table 2.

**TABLE 2**  
**STRUCTURE MATRIX FOR B&M CDS FACTORS FOR BOTH COUNTRIES**

Item	RSA: N = 1342					Germany: N = 1543				
	F1: Enjoym	F2: Heuris	F3: Conf	F4: Perf	F5: Imp/ Carel	F1: Enjoym	F2: Heuris	F3: Conf	F4: Perf	F5: Imp/ Carel
To me, shopping at B&M retail stores is an enjoyable activity	0.857					0.863				
Shopping in B&M retail stores is a pleasant activity for me	0.903					0.909				
I enjoy B&M shopping just for the fun of it	0.841					0.840				
It's fun and exciting to buy new products in B&M retailers	0.794					0.794				
To me, the higher the price of the product, the better the quality		0.730					0.655			
The more expensive brands are usually my choice		0.777					0.725			
I prefer buying the best-selling brands		0.766					0.758			
I prefer well-known brands		0.718					0.738			
I regard the most advertised brands as very good choices		0.739					0.557			
The more I learn about specific products, the harder it seems to choose the best			0.714					0.750		
I tend to be confused by all the information about products			0.784					0.761		
Sometimes it is hard to choose where (which stores) to shop			0.639					0.347		
There are so many brands to choose from in B&M stores that I often feel confused			0.836					0.712		
I make a special effort to choose the very best quality products				0.802					0.829	
I usually try to buy the best overall quality				0.837					0.843	
Getting very good quality products is very important to me				0.820					0.815	
I often make careless purchases that I later wish I had not					0.818					0.750
I tend to be impulsive when shopping around in B&M stores					0.786					0.770
I should plan my shopping at B&M stores more carefully than I do					0.647					0.728
<b>Cronbach's alpha</b>	0.86	0.87	0.84	0.85	0.82	0.85	0.75	0.74	0.80	0.82
<b>Mean</b>	3.34	2.90	2.89	3.95	2.69	3.13	2.76	2.61	3.51	2.44
<b>SD</b>	0.97	0.80	0.80	0.69	0.91	0.94	0.70	0.71	0.79	0.84
<b>% Variance explained</b>			66.8					63.2		

Enjoym = Enjoyment; Heuris = Heuristics; Conf = Confusion; Perf = Perfectionism; Imp/ Carel = Impulsiveness/ Carelessness  
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations

Factor labels were linked to the original CSI dimensions where item content permitted. F1: *Enjoyment*, merged three items from the original *Recreational* and *Hedonistic consciousness* CDS, and one item from the original *Novelty-fashion consciousness* CDS; F2: *Heuristics*, merged four items from two of the original CDS, namely *Brand consciousness*, and *Price equals quality*; F3: *Confusion by over choice*, retained the four original CDS items; F4: *Perfectionism*, retained three items from the original CDS; and F5: *Impulsiveness/carelessness*, retained three items from the original CDS.

In summary, three CDS that coincided for both countries concurred with the dimensions of the original CSI, although two of the CDS, namely *Perfectionism* and *Impulsiveness/carelessness*, contained fewer items than the original scale. The remaining two factors resembled a merge of the original CSI factors and were labelled accordingly: *Enjoyment* merged three items from the original *Recreational* and *hedonistic consciousness* CDS, and one item from the original *Novelty-fashion consciousness* CDS. The newly chosen label for the CDS *Heuristics* could be defended theoretically in that it merged four items from the original CDS *Brand consciousness*, and *Price equals quality*.

**Therefore, Hypothesis H1.1, proposing that the prevailing B&M CDS in South Africa, an emerging economy, differs from the prevailing CDS in the same shopping context in Germany, a typical developed country, is not supported.**

The relevance of the CDS for B&M shopping was interpreted in terms of the respective factor means (M) shown in Table 2 and interpreted as:  $M_{\text{Max}} = 5$ ;  $M > 4$ : Strong/pertinent CDS;  $M > 3.5 < 4$ : Relatively strong CDS;  $M > 2.5 < 3.5$ : Moderately strong CDS;  $M > 1.5 < 2.5$ : Relatively weak CDS; and  $M < 1.5$ : Weak CDS.

Four CDS were equally relevant in both countries, with *Perfectionism*, which indicates concern about quality, procuring the best products possible, being the most robust CDS. Three CDS were relatively strong in both countries, of which *Enjoyment*, the second strongest CDS, denoted the importance of a pleasurable experience in physical stores, which is in line with previous studies that concluded that patronage of physical stores often serves as a form of leisure and pleasure (Elmashhara & Soares 2019: 96; Retief et al. 2018: 1). Another moderately strong CDS in B&M stores, *Heuristics*, affirmed consumers' reliance on surrogate indicators during decision-making. At the same time, the CDS *Impulsiveness/carelessness* confirmed that enticing sensory cues and design elements in physical stores might encourage unplanned purchases. Although the relative strength/pertinence of the different CDSs seemed similar for both countries, ANOVA revealed that all the CDSs were significantly more pertinent among RSA than FRG consumers ( $p < 0.0001$ ).

## **OLCDS AND THEIR RELEVANCE FOR THE TWO COUNTRIES**

Similar to the outcomes for B&M shopping where the factor outcomes concurred for the two countries, Table 3 reveals a similar four-factor solution for consumers' OLCDS for South Africa and Germany. The internal consistency (Cronbach's  $\alpha > 0.7$ ) was satisfactory for all the factors, with acceptable variance in the data (Overall RSA:  $\text{Cr } \alpha = 0.85$ ; % Variance: 56.71%; Overall FRG:  $\text{Cr } \alpha = 0.79$ ; % Variance explained: 56.56%).

The newly extracted OLCDS factor labels reflected the implied meaning of their item content: Factor 1, *Enjoyment*, merged three items from the original *Recreational* and *hedonistic consciousness* CDS with one item from the original *Novelty-fashion consciousness* CDS. The item "I tend to be impulsive when shopping around" cross-loaded on two factors for FRG, and it seemed logical to rather retain it as part of the OLCDS *Confusion/carelessness*, as configured for the RSA output. Factor 2, labelled as the OLCDS *Confusion/carelessness*, merged the original CDS *Confusion by over choice*, with three items from the original *Impulsiveness/carelessness* scale. Factor 3, the OLCDS *Heuristics*, merged four items from the original CDS *Brand consciousness*, and *Price equals quality*, including an item from the *Perfectionist* CDS. Factor 4, the OLCDS *Perfectionism*, retained three items from the original CDS. Two items with poor factor loadings ( $< 0.40$ ) were deleted, namely: "I do not spend much time on shopping", and "Shopping around exploring the content of different online sites wastes my time".

**TABLE 3**  
**STRUCTURE MATRICES FOR OLCDS FACTORS FOR BOTH COUNTRIES**

Item	RSA: N = 1342				Germany: N = 1543			
	F1: Enjoyment	F2: Conf/ Careless	F3: Heuris	F4: Perf	F1: Enjoyment	F2: Conf/ Careless	F3: Heuris	F4: Perf
To me, online shopping is an enjoyable activity	0.835				0.817			
Online shopping is a pleasant activity for me	0.866				0.855			
I enjoy online shopping just for the fun of it	0.758				0.833			
It's fun and exciting to buy new products online	0.840				0.848			
The more I learn about specific products, the harder it seems to choose the best		0.433				0.462		
I often make careless purchases that I later wish I had not		0.523				0.515		
I tend to be confused by all the information about products		0.667				0.667		
I tend to be impulsive when shopping around		0.495				0.494		
Sometimes it is hard to choose where (which online sites) to shop		0.572				0.622		
I should plan my online shopping more carefully than I do		0.669				0.624		
There are so many brands to choose from that I often feel confused		0.783				0.708		
To me, the higher the price of the product, the better the quality			0.681				0.658	
The more expensive brands are usually my choice			0.758				0.737	
I prefer buying the best-selling brands			0.709				0.703	
I prefer well-known brands			0.643				0.705	
I regard the most advertised brands as very good choices			0.630				0.441	
I usually try to buy the best overall quality				0.785				0.837
Getting very good quality products is very important to me				0.779				0.779
I make a special effort to choose the very best quality products				0.724				0.818
<b>Cronbach's alpha</b>	0.87	0.74	0.77	0.76	0.88	0.72	0.72	0.80
<b>Mean</b>	3.17	2.79	2.94	3.94	3.16	2.56	2.80	3.52
<b>SD</b>	0.94	0.68	0.75	0.72	0.97	0.66	0.69	0.83
<b>Explained Variance %</b>	16.31	14.66	14.34	11.38	18.48	13.12	12.96	12.00

Enjoyment = Enjoyment; Conf/ Careless = Confusion/ Carelessness; Heuris = Heuristics, Perf = Perfectionism;

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations.

Investigating the respective factor means as an indication of the relevance of the four OLCDS revealed that in both countries, Perfectionism was the strongest and most pertinent OLCDS. *Perfectionism* was followed, in descending order, by three OLCDS that were all moderately strong and therefore rather influential during online shopping. They are, in descending order, the OLCDS *Enjoyment* and *Heuristics*, concurring with the findings for B&M shopping, and *Confusion/carelessness*. The latter deserves attention in future research concerning the reputation of OL shopping because the pertinence and relative strength of the OLCDS *Confusion/carelessness* concurred for the two countries despite differences in consumers' OL experience. Therefore:

**Hypothesis H1.2, proposing that consumers' OLCDS in South Africa, an emerging economy, differ from consumers' prevailing OLCDS in FRG, a typical developed economy, is not supported.**

**Subsequently, H1, which proposed differences in the prevailing CDS for B&M and OL shopping across the two countries, is not supported.**

**However, H2 that proposed differences in the prevailing B&M CDS and the OLCDS for consumers within a selected geographic location is supported based on evidence that differences exist in RSA consumers' prevailing CDS for B&M shopping compared to their OLCDS (H2.1). The same applies to FRG consumers across the two shopping contexts (H2.2).**

## DEMOGRAPHIC DIFFERENCES IN CONSUMERS' CDS ACROSS THE TWO COUNTRIES

### Gender differences

Table 4 provides the outcomes of a gender comparison of the relevant CDS for B&M and OL shopping in both countries, derived from t-tests.

**TABLE 4**  
**GENDER COMPARISON OF THE RELEVANT CDS FOR BOTH COUNTRIES PER SHOPPING MODE**

B&M CDS	Factor means: RSA (N = 1342)			Factor means: FRG (N = 1493)		
	Males	Females	p-value	Males	Females	p-value
	(n = 591)	(n = 754)		n = 609	n = 886	
Perfectionism	3.99	3.91	p > 0.05	3.64	3.44	p = 0.000
Enjoyment	3.10	3.53	p < 0.0001	2.75	3.38	p = 0.000
Heuristics	2.89	2.91	p > 0.05	2.85	2.70	p = 0.000
Confusion by over choice	2.86	2.91	p > 0.05	2.54	2.66	p = 0.000
Impulsiveness/ carelessness	2.53	2.82	p = 0.0001	2.26	3.38	p = 0.000
OLCDS	Factor means: RSA (N = 1342)			Factor means: FRG (N = 1493)		
	Males	Females	p-value	Males	Females	p-value
	(n = 591)	(n = 752)		n = 608	n = 885	
Perfectionism	3.97	3.92	p = 0.226	3.66	3.42	p = 0.000
Enjoyment	3.11	3.21	p = 0.052	2.99	3.27	p = 0.000
Heuristics	2.94	2.94	p = 0.972	2.89	2.74	p = 0.000
Confusion/impulsiveness	2.72	2.84	p = 0.002	2.43	2.65	p = 0.000

Shaded figures indicate significant differences (p < 0.05)

### *Gender differences for consumers' B&M CDS*

In the **RSA sample** (N = 1345), three CDS were equally relevant among males and females, namely *Perfectionism*, the most pertinent CDS, as well as *Heuristics* and *Confusion by over choice* that were both moderately strong. Males' and females' reliance on surrogate cues to guide their buying decisions hence seemed similar, concurring with previous research (Hanzaee & Aghasibeig 2008: 535; Mokhlis & Salleh 2009: 535; Sangodoyin & Makgosa 2014: 51). The remaining two CDS, namely, *Enjoyment* and *Impulsiveness/carelessness*, were significantly more robust ( $p < 0.05$ ) among females. This finding suggests that RSA females have a notably stronger propensity towards unplanned and possibly irresponsible purchase behaviour, fueled by the pleasure they derive from shopping in physical stores. Walsh et al. (2001: 128) also reported that females enjoyed shopping in B&M stores significantly more.

In the **FRG sample** (N = 1493), and contrary to the RSA findings, significant gender differences were evident for all five B&M CDS. Two CDS, namely *Perfectionism* and *Heuristics* were significantly more prevalent among German males. The CDS *Perfectionism*, the most pertinent CDS, was significantly more typical of German men ( $p < 0.05$ ). A significantly higher prevalence of the CDS *Heuristics* among German men in physical stores suggests they were notably more reliant on surrogate indicators such as familiar brand names and price to achieve the desired purchase outcomes. Three CDS were significantly more prevalent among German females in B&M stores. Two emotional and affective CDS in kind, namely *Enjoyment* and *Impulsiveness/carelessness*, concurred with the RSA findings and previous research (Walsh et al. 2001: 128). Therefore, in both countries, females derived significantly higher levels of pleasure from in-store shopping despite significantly higher levels of *Impulsiveness/carelessness*. German females also seemed significantly more prone to implement a *Confusion by over choice* CDS, which could have aggravated their significantly stronger inclination towards *Impulsiveness/carelessness*.

**H3.1.1, which proposes significant gender differences concerning consumers' application of the relevant CDS in B&M shopping contexts, is supported for both countries.**

### *Gender differences in consumers' OLCDS*

Within the **RSA sample**, three of the OLCDS were equally relevant among males and females, namely *Perfectionism*, *Enjoyment*, and *Heuristics*. The only significant gender difference emerged for the OLCDS *Confusion/carelessness*, significantly rarer among RSA females.

Within the **FRG sample** for OL shopping, as was the case for B&M shopping, significant gender differences emerged for all OLCDS. The significantly stronger prevalence of the OLCDS, *Perfectionism*, among men, suggests that they were significantly more pedantic when considering product quality and performance indicators when shopping online. German men also seemed significantly more reliant on surrogate indicators such as price, brand name, or the reputation and image of the suppliers to achieve the desired purchase outcomes. Two OLCDS were significantly more prevalent among German females, namely *Confusion/carelessness* and *Enjoyment*, indicating vulnerability among German female online shoppers that need further exploration. While German men seemed discerning when shopping online, their female counterparts enjoyed online shopping significantly more, despite being significantly more confused and impulsive, which is not conducive to conclude informed, responsible OL decision-making.

**H3.2.1 that proposes significant gender differences concerning consumers' application of the relevant OLCDS is therefore supported for both countries.**

In summary, gender differences within the two countries concerning consumers' application of the five B&M CDS and the relevant four OLCDS are indisputable.

## Age differences

The pertinence of the consumers' B&M CDS across the different age groups is presented in Table 5 for each country. It should be noted that the age distribution was not even for the two countries, with a stronger representation of young respondents in Germany. Efforts to recruit additional older respondents electronically within the time limitation were unsuccessful.

**TABLE 5**  
**AGE COMPARISON OF THE RELEVANT CDS FOR BOTH COUNTRIES PER SHOPPING MODE**

B&M CDS	Factor means (M*): RSA (N=1341)					Factor means (M*): FRG (N=1493)				
	<30yrs n=382	30-39yrs n=282	40-59yrs n=465	>59 yrs n=212	p= value	<30yrs n=985	30-39yrs n=189	40-59yrs n=298	>59yrs n=72	p-value
Perfectionism	3.98	3.97	3.94	3.90	p>0.05	3.49	3.62	3.52	3.44	p>0.05
Enjoyment	3.48	3.27	3.34	3.17	p<0.05	3.23	2.93	2.99	2.89	p=0.000
Heuristics	3.13	2.99	2.76	2.67	p<0.05	2.77	2.71	2.72	2.85	p>0.05
Confusion by over choice	2.85	2.92	2.85	2.95	p>0.05	2.63	2.59	2.50	2.83	p=0.000
Impulsiveness/carelessness	2.89	2.73	2.62	2.46	p<0.05	2.53	2.49	2.17	2.29	p<0.03
OLCDS	Factor means: RSA (N=1341)					Factor means: FRG (N=1543)				
	<30yrs n=382	30-39yrs n=282	40-59yrs n=465	>59 yrs n=212	p= value	<30yrs n=984	30-39yrs n=189	40-59yrs n=299	>59yrs n=71	p-value
Perfectionism	3.98	4.00	3.93	3.80	p=0.001	3.51	3.65	3.54	3.20	p=0.001
Enjoyment	3.43	3.33	3.06	2.72	p=0.000	3.41	3.03	2.62	2.25	p=0.000
Heuristics	3.12	3.02	2.83	2.74	p=0.012	2.83	2.83	2.74	2.62	p=0.032
Confusion/ impulsiveness	2.88	2.78	2.75	2.71	p=0.000	2.64	2.51	2.38	2.28	p=0.000

Shaded figures signify significantly stronger application of the specific CDS; \*Mmax = 5

## Age differences for consumers' B&M CDS

In the **South African (RSA) sample**, two CDS seemed equally relevant ( $p>0.05$ ) across all age groups, namely *Perfectionism* and *Confusion by over choice*. Experience gained over time subsequently does not reduce confusion in sophisticated modern physical stores notably, an issue that deserves further attention in future research. The remaining three CDS, namely *Enjoyment*, *Heuristics*, and *Impulsiveness/carelessness*, were all significantly more rampant among younger consumers. The CDS *Enjoyment* and *Heuristics* declined significantly in prevalence ( $p<0.05$ ) from the youngest to the oldest age category, suggesting that B&M shopping is significantly less enjoyable among older consumers. Older consumers are more experienced and probably less reliant on surrogate indicators to guide their purchases decisions. Notwithstanding significant age differences, the CDS *Enjoyment* was still a relatively strong CDS among all RSA shoppers in physical stores.

In the **German (FRG) sample**, and despite an over-representation of young consumers in the German sample that might have skewed the results towards younger age cohorts, two CDS were equally relevant ( $p>0.05$ ) across all age groups, namely: *Perfectionism*, and the moderately strong CDS, *Heuristics*. The latter indicates all age groups' reliance on surrogate indicators to achieve their quest for perfection. Similar to the RSA sample, two CDS, namely *Enjoyment* and *Impulsiveness/carelessness*, were significantly more typical of younger German shoppers. In both countries, impulsive, careless shopping behaviour was considerably less rife among older, more experienced consumers. A noteworthy difference from the RSA context is that the CDS *Confusion by over choice* was significantly more pertinent among the most mature German age cohort while identified as a universal problem among South Africans, irrespective of age.

**Based on the findings, H3.1.2 proposing significant age differences for the relevant B&M CDS is supported for both countries.**

### *Age differences for consumers' OLCDS*

All four OLCDS were significantly more prevalent ( $p < 0.05$ ) among younger consumers within the **RSA sample**. The OLCDS *Perfectionism* was significantly more pertinent ( $p = 0.0000$ ) among consumers younger than 60 years. *Enjoyment*, associated with delight, significantly decreased in relevance ( $p = 0.000$ ) from one age group to the following older age category, suggesting that OL shopping is significantly more enjoyable among younger consumers. A similar tendency was noted for the OLCDS *Heuristics* that significantly decreased relevance ( $p < 0.05$ ) from one age category to the following older age category. Therefore, RSA consumers' reliance on surrogate indicators such as the reputation of brands, the image of service providers, and price as a quality indicator declines as consumers mature and gain more experience. *Confusion/carelessness* was significantly stronger ( $p = 0.012$ ) among the youngest age cohort. This finding could be attributed to product-related confusion rather than inexperience with technology, as younger people are generally more tech-savvy (Duh & Struwig 2015: 99).

Within the **FRG sample**, and concurring with findings for the RSA sample, significant age differences ( $p < 0.05$ ) emerged for all the OLCDS. All the OLCDS were significantly stronger among the younger age groups, indicating *Perfectionism* as the most prevalent OLCDS among all, although significantly more pertinent among younger online shoppers ( $p = 0.000$ ). Despite an over-representation of young consumers in this subset of the sample, findings concurred with the RSA subset, namely that the OLCDS *Enjoyment* significantly declined in relevance ( $p < 0.05$ ) for every consecutive age group. Consumer socialisation literature indicates that consumers become more confident over time and acquire knowledge and experience that facilitate their consumer decision-making skills, explaining why the relevance of the OLCDS *Heuristics* significantly declined ( $p < 0.05$ ) among consumers younger than 40 years. Therefore, younger consumers, generally less experienced, seem to rely considerably on surrogate indicators to support their OL purchase decisions, which concurred with the RSA findings. The OLCDS *Confusion/carelessness* was significantly more prevalent ( $p < 0.05$ ) among consumers younger than 40 years compared to older online shoppers, again concurring with the RSA findings.

**H3.2.2 proposing significant age differences for the relevant OLCDS within a particular country is therefore supported for both countries.**

### *Level of education differences*

A comparison of the level of education differences in consumers' CDS for the two countries is presented in Table 6, followed by the discussion. It was inevitable that the stronger representation of younger respondents in the German sample would affect the education level distribution accordingly, with more respondents in the lower education level category. The higher level of education categories was adequate for analysis.



**TABLE 6**  
**LEVEL OF EDUCATION COMPARISON OF THE RELEVANT CDS FOR BOTH COUNTRIES PER SHOPPING MODE**

B&M CDS	Factor means: RSA (N=1344)				Factor means: FRG (N=1495)			
	<Gr 12 (Abitur) n=331	B degr/dipl n=601	Post gr n=402	p=value	<Gr 12 (Abitur) n=1108	B degr/ dipl n=244	Post gr n=143	p-value
Perfectionism	3.86	3.96	4.03	p=0.000	3.46	3.70	3.70	p=0.000
Enjoyment	3.42	3.37	3.24	p<0.05	3.16	3.14	2.86	p=0.000
Heuristics	2.99	2.88	2.86	p=0.000	2.76	2.72	2.80	p=0.583
Confusion by over choice	3.02	2.88	2.86	p=0.000	2.64	2.52	2.54	p=0.017
Impulsiveness/ carelessness	2.91	2.71	2.49	p=0.001	2.45	2.48	2.30	p=0.70
OLCDS	Factor means: RSA (N=1341)				Factor means: FRG (N=1543)			
	<Gr 12 (Abitur): n=330	B degr/ dipl n=600	Post gr n=401	p= value	<Gr 12 (Abitur): n=1108	B degr/ dipl n=244	Post gr n=143	p-value
Perfectionism	3.79	3.96	4.04	p=0.000	3.47	3.70	3.59	p=0.000
Enjoyment	3.03	3.20	3.25	p=0.004	3.16	3.29	2.85	p=0.000
Heuristics	2.99	2.92	2.94	p=0.389	2.58	2.58	2.37	p=0.959
Confusion/ impulsiveness	2.88	2.79	2.69	p=0.000	2.45	2.48	2.30	p=0.001

Shaded figures signify significantly stronger application of the specific CDS; \*M<sub>max</sub> = 5

### *Level of education differences in consumers' B&M shopping styles*

Significant differences in the **RSA sample** were indisputable for all the B&M CDS across the different education levels. *Perfectionism* was significantly more prevalent among those who had furthered their education beyond secondary schooling, also being the only B&M CDS that was significantly more prevalent among higher educated consumers. The other four CDS that may all be emotionally laden regarding their influence on consumers' shopping behaviour were significantly more relevant among lower educated consumers. The CDS *Enjoyment*, decreased significantly in relevance as consumers' education level increased. The CDS *Heuristics* was significantly more prevalent among the lowest educated consumers, possibly due to lower educated consumers' increased vulnerability in terms of their cognitive ability to conduct rational purchase decisions. Further aggravating the lowest educated consumers' vulnerability is the significance of the CDS *Impulsiveness/carelessness* among the lower educated.

In the **FRG sample** (N = 1495), *Perfectionism* was significantly more prevalent among higher educated consumers, notwithstanding a more extensive presence of lower-educated consumers in the sample. The CDS, *Enjoyment*, was significantly more rife among lower educated consumers suggesting - as for RSA shoppers - that B&M shopping is enjoyed significantly more by young consumers. The remaining three B&M CDS, namely *Heuristics*, *Confusion by overchoice*, and *Impulsiveness/carelessness*, were equally relevant among all education levels in Germany.

**H3.1.3 proposing significant education level differences in consumers' application of the relevant B&M CDS is subsequently supported for both countries.**

### *Level of education differences in consumers' online shopping styles*

For the **RSA sample**, only the OLCDS, *Heuristics*, seemed mutually relevant ( $p > 0.05$ ) across all education levels, indicating that consumers' reliance on surrogate indicators to guide their online shopping was not related to their education level. Significant differences ( $p < 0.05$ ) among the education levels for the application of all of the remaining OLCDS, indicated that two OLCDS, namely *Perfectionism* and *Enjoyment*, were significantly more characteristic of consumers with post-secondary education. The OLCDS *Confusion/carelessness* was significantly more pertinent among lower educated consumers, indicating the value of education to reduce confusion.

Within the **FRG sample**, significant differences were apparent for three OLCDS. Similar to the RSA context, the OLCDS *Perfectionism* was significantly more characteristic of consumers with higher education levels. The OLCDS *Heuristics* was mutually relevant among all education levels, indicating that education level did not influence consumers' use of surrogate indicators to guide their online purchase decisions. Contrary to the RSA sample, the OLCDS *Enjoyment* was significantly less prevalent ( $p < 0.05$ ) among the highest educated online shoppers. As for the RSA sample, the OLCDS *Confusion/carelessness* was significantly less prevalent among the highest educated online shoppers.

**H3.2.3 proposing significant education level differences in consumers' application of the relevant OLCDS is hence supported for both countries.**

## **THEORETICAL IMPLICATIONS**

For more than three decades, the CSI of Sproles and Kendall (1986: 267) served most researchers' benchmark concerning consumers' decision styles, noting problematic issues about the small student sample, doubtful reliability statistics, and the scale's applicability in different contexts (geographic, as well as shopping context). These issues have provided an opportunity to revisit this fundamental phenomenon. This research makes four crucial theoretical contributions. For the first time, empirical evidence is provided of CDS for B&M shopping and OL shopping that concurs across developed and developing market contexts. Contrary to previous studies, the reliability statistics for all the identified CDS factors for both modes of shopping and geographic contexts were good (Cronbach's  $\alpha > 0.07$ ). Reported differences in how retail has developed and changed over time in the two contexts have not culminated in vast differences in how consumers behave in the marketplace. Instead, indications are that consumers' shopping styles in developed and developing countries are more congruent, suggesting that evidence of a "global consumer" has begun to take shape. Therefore, retailers should instead align their product offerings for a meticulous consumer based on the prevalence of "Perfectionism" as the predominant CDS in both shopping contexts, for B&M and OL shopping, irrespective of the consumer's location. Also insightful is that demographic differences in respondents' CDS are not vastly different. Mostly, younger respondents enjoy shopping more, while the more vulnerable older and lower educated respondents seem more inclined to be confused and even careless when conducting their purchases, which signals a need to make shopping contexts more user-friendly. Thirdly, a more straightforward approach to our understanding of CDS is presented, with five B&M CDS and four OLCDS, compared to eight or more CDS presented in previous research. A more straightforward configuration of consumers' CDS, where the individual CDS can be conceptualised with fewer overlaps, could reduce bias in the interpretation of research outcomes and the implementation of research findings. A fourth insightful contribution is the finding that the prevailing CDS for B&M shopping (*Perfectionism, Heuristics, Enjoyment, Confusion by overchoice, Impulsiveness/carelessness*) and online shopping (*Perfectionism, Heuristics, Enjoyment, Confusion/carelessness*) suggests rational decision-making (*Perfectionism*) as the most prevalent CDS for B&M and OL shopping for both geographic contexts. Another similarity concerning the CDS whether shopping in a physical store or online, relates to uncertainty issues (*Heuristics*), indicating that respondents are not always confident enough to make informed purchase decisions, hence relying on surrogate indicators such as brand name and price. The integrated CDS *Heuristics* is a meaningful configuration of several other CDS mentioned in previous studies, labelled *Price sensitivity, Branding*, et cetera, indicating consumers' lack of confidence to evaluate tangible quality criteria. Also evident is that irrespective of the shopping mode or the

geographic context, emotional/hedonic decisions are integral to how consumers deal with shopping. *Enjoyment*, a positive, emotionally laden CDS could be comforting for retailers, indicating that consumers enjoy patronising the stores. This should be optimised to enhance consumers' shopping experiences further. Negative, emotionally laden B&M CDS, particularly *Confusion by overchoice*, *Impulsiveness/carelessness*, and *Confusion/carelessness*, an OLCDS, imply uncertainty or lack of experience that is not conducive to informed, responsible consumer decision-making. These negative, emotionally laden CDS deserve retailers' attention as uncertainty may lead to switching behaviour causing negative repercussions. The proposed measuring instruments are presented in Tables 7 and 8.

**TABLE 7**  
**PROPOSED MEASURING INSTRUMENT FOR CONSUMERS' CDS IN B&M STORES**

The following items should be presented shuffled. Responses should be based on a five-point "Agreement" rating scale, anchored by 1 = Strongly Disagree and 5 = Strongly Agree.
<p><b>When shopping in B&amp;M stores ...</b></p> <p><b>Perfectionism</b></p> <ol style="list-style-type: none"> <li>1. I usually try to buy the best overall quality</li> <li>2. Getting very good quality products is very important to me</li> <li>3. I make a special effort to choose the very best quality products</li> </ol>
<p><b>Enjoyment</b></p> <ol style="list-style-type: none"> <li>1. Online shopping is an enjoyable activity</li> <li>2. Online shopping is a pleasant activity for me</li> <li>3. I do online shopping for the fun of it</li> <li>4. It's fun and exciting to buy new products online</li> </ol>
<p><b>Confusion</b></p> <ol style="list-style-type: none"> <li>1. The more I learn about specific products, the harder it seems to choose the best</li> <li>2. I tend to be confused by all the information about products</li> <li>3. It is hard to choose where (which online sites) to shop</li> <li>4. There are so many brands to choose from that I become confused</li> </ol>
<p><b>Heuristics</b></p> <ol style="list-style-type: none"> <li>1. I regard higher-priced products as of a better quality</li> <li>2. I choose more expensive brands</li> <li>3. I prefer buying the best-selling brands</li> <li>4. I prefer well-known brands</li> <li>5. I regard the most advertised brands as very good choices</li> </ol>
<p><b>Impulsiveness/Carelessness</b></p> <ol style="list-style-type: none"> <li>1. I often make careless purchases that I later wish I had not</li> <li>2. I tend to be impulsive when shopping around in B&amp;M stores</li> <li>3. I should plan my shopping at B&amp;M stores more carefully than I do</li> </ol>

**TABLE 8**  
**PROPOSED MEASURING INSTRUMENT TO EXPLORE CONSUMERS' OLCDS**

<p>The following items should be presented shuffled. Responses should be based on a five-point "Agreement" rating scale, anchored by 1 = Strongly Disagree and 5 = Strongly Agree.</p>
<p><b>When shopping online ...</b></p> <p><b>Perfectionism</b></p> <ol style="list-style-type: none"> <li>1. I usually try to buy the best overall quality</li> <li>2. Getting very good quality products is very important to me</li> <li>3. I make a special effort to choose the very best quality products</li> </ol>
<p><b>Enjoyment</b></p> <ol style="list-style-type: none"> <li>1. Online shopping is an enjoyable activity</li> <li>2. Online shopping is a pleasant activity for me</li> <li>3. I do online shopping for the fun of it</li> <li>4. It's fun and exciting to buy new products online</li> </ol>
<p><b>Confusion/carelessness</b></p> <ol style="list-style-type: none"> <li>1. The more I learn about specific products, the harder it seems to choose the best</li> <li>2. I often make careless purchases that I later wish I had not</li> <li>3. I tend to be confused by all the information about products</li> <li>4. I tend to be impulsive when shopping around</li> <li>5. It is hard to choose where (which online sites) to shop</li> <li>6. I should plan my online shopping more carefully than I do</li> <li>7. There are so many brands to choose from that I become confused</li> </ol>
<p><b>Heuristics</b></p> <ol style="list-style-type: none"> <li>1. I regard higher-priced products as of a better quality</li> <li>2. I choose more expensive brands</li> <li>3. I prefer buying the best-selling brands</li> <li>4. I prefer well-known brands</li> <li>5. I regard the most advertised brands as very good choices</li> </ol>

## **IMPLICATIONS FOR CONSUMERS AND RETAILERS**

Clarification of consumers' CDS in the marketplace, whether shopping in physical stores or online, is crucial to comprehend consumers' behaviour and market needs. This research shows that respondents' shopping styles are strongly driven by *Perfectionism*, a CDS that prioritises quality, whether shopping in a physical store or online, across all demographic groups. This finding presents a clear direction concerning retailers' product offerings, i.e., precisely what they offer and how they promote their merchandise and after-sales service. Concurrence of respondents' CDS across the two countries for both shopping modes suggests more similarities than what has been noted in previous studies, with evidence that retailers may align themselves towards a more global approach in serving consumers. However, differentiation is highly likely for the type of products on offer, which was not the focus of this study. The prevalence of the CDS *Heuristics*, indicating consumers' reliance on, and trust in, specific surrogate indicators to achieve the desired purchase outcomes, whether price, brand name, or country of origin, should guide retailers' promotion of merchandise. For example, retailers should emphasise popular brand names and price differentiation in certain product categories. Using surrogate quality indicators is mostly a shortcut used by consumers to conclude a purchase decision where the array of products may be confusing and overwhelming. The latter was confirmed through the prevalence of the CDS, *Confusion by overchoice*, *Impulsiveness/carelessness* for B&M shopping, and *Confusion/carelessness*, an OLCDS. Therefore, the CDS *Heuristics* may also be a coping mechanism to deal with uncertainty and frustration in the marketplace. Evidence that *Enjoyment* is a rather pertinent CDS for both shopping

modes suggests that retailers should go beyond service offerings that are merely functional, as shopping is not necessarily only a matter of duty. Previous research by Retief et al. (2018: 1) explained that consumers have high expectations of shopping environments, and when all elements are equal, consumers will opt for more pleasurable environments. The prevalence of negatively laden emotional CDS, depicting confusion and carelessness, presents challenges for retailers and customers. Maybe physical stores have become too sophisticated or too big, which could be addressed by attending to store design and providing in-store support to enhance consumers' experiences. With online shopping, retailers should guard against overly sophisticated websites that are difficult to navigate. Particularly noteworthy is that confusion-related shopping behaviour in physical stores was significantly rifer among South Africans and more problematic among females, while this was true for the more vulnerable older consumers in Germany. As many consumers may find it challenging to cope, retailers must reconsider store and web design and customer support to satisfy customers' needs.

## LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The researchers were compelled to use convenience sampling to overcome logistical challenges with data collection in the two countries. Therefore, the samples were not representative of the respective countries' populations. To overcome this shortcoming, relatively large samples were recruited. Although the results can, unfortunately, not be generalised, the outcomes encourage further research on consumers' CDS for B&M and OL shopping in other countries, recommending the recruitment of more representative samples across different contexts to validate the findings. The over-representation of younger consumers in the German sample was unfortunate, and future studies should attempt to recruit a more even sample for similar comparisons. At face value, the over-representation of young respondents in the German sample did not negatively impact the findings when looking at the age comparisons between the two countries. However, a future study where the age distribution is more balanced should be pursued to affirm demographic differences and reasons for particular consumer segments' apparent increased confusion, carelessness, and impulsiveness when shopping. Challenges encountered by consumers could be explored to augment physical store environments with probable worthwhile outcomes for consumer store patronage and store loyalty. For example, confusion in B&M contexts may indicate that shopping environments have become overwhelming for some. Probably most encouraging is the finding that consumers have become more global in their decision styles and that retailers' initiatives need not necessarily differ for the respective countries.

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