

Shopping behaviour of elderly consumers: change and stability during times of crisis

Teresa Schwendtner, Sarah Amsl and Christoph Teller
*JKU Business School, Institute for Retailing, Sales and Marketing,
Johannes Kepler University, Linz, Austria, and*
Steve Wood

Surrey Business School, University of Surrey, Guildford, UK

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Abstract

Purpose – Different age groups display different shopping patterns in terms of how and where consumers buy products. During times of crisis, such behavioural differences become even more striking yet remain under-researched with respect to elderly consumers. This paper investigates the impact of age on retail-related behavioural changes and behavioural stability of elderly shoppers (in comparison to younger consumers) during a crisis.

Design/methodology/approach – The authors surveyed 643 Austrian consumers to assess the impact of perceived threat on behavioural change and the moderating effect of age groups. Based on findings from this survey, they subsequently conducted 51 semi-structured interviews to understand the causes of behavioural change and behavioural stability during a crisis.

Findings – Elderly shoppers display more stable shopping behaviour during a crisis compared to younger consumers, which is influenced by perceived threat related to the crisis. Such findings indicate that elderly shoppers reinforce their learnt and embedded shopping patterns. The causes of change and stability in behaviour include environmental and inter-personal factors.

Originality/value – Through the lens of social cognitive theory, protection motivation theory and dual process theory, this research contributes to an improved understanding of changes in shopping behaviour of elderly consumers, its antecedents and consequences during a time of crisis. The authors reveal reasons that lead to behavioural stability, hence the absence of change, in terms of shopping during a crisis. They further outline implications for retailers that might wish to better respond to shopping behaviours of the elderly.

Keywords Elderly shoppers, Shopping behaviour, Causes, Consequences, Crisis, Change and stability

Paper type Research paper

Introduction

Crises confront society with wide-ranging challenges – something which sees retailers forced to adapt to new and volatile shopping behaviours, including panic purchases, and varying product and channel choices (Boyle *et al.*, 2022; Koos *et al.*, 2017). Understanding the nature of behavioural change and then responding to it effectively is a key requirement of retailers. During the Covid-19 pandemic, the reduced ability to accurately predict consumer demand contributed to out-of-stock (OOS) situations in many grocery stores – something which was also exacerbated by logistics and supply bottlenecks (Hamer, *n.d.*). These OOS situations resulted in a loss of turnover of 18% in 2020 within the EU-27 compared to the previous year



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(Eurostat, 2020). Understanding what triggers behavioural change as well as what leads to behavioural stability during times of crisis has become important for retailers to avoid disruption to their operations, a loss of reputation and, subsequently, to maintain the trust, loyalty and patronage of consumers (SnapRetail, 2020).

Uncertain times like crises have an impact on people's well-being, which disrupts their behavioural patterns and routines (Koos *et al.*, 2017). Logically then, changes in behaviour occur among shoppers in response to uncertainty (Sheth, 2020) that becomes evident through that hoarding, improvising (e.g. buying substitutes, visiting stores at different times), using digital technology (e.g. new payment methods, new store formats, self-service check-outs), decreasing store visits and so forth. Put simply, many consumers change what they consume and where, when (Sheth, 2020) and how they buy it (Hall *et al.*, 2021). However, some consumers – despite the adverse impact of a crisis – stick to their routines and exhibit stable behaviours. For example, nearly half of shoppers from the United Kingdom continued patronizing retailers they were familiar with during the Covid-19 pandemic (Statista, 2021).

Older age cohorts display different shopping patterns in terms of where, how and when they purchase products and services (compared to younger ones) (Burt and Gabbott, 1995; Moschis, 2003, 2012). While, in general, shopping patterns of consumers stabilize and routine over time (Steenkamp and Maydeu-Olivares, 2015), elderly shoppers, for example, have an increased need for close and accessible stores and prefer well-known brands (Burt and Gabbott, 1995) – thereby exhibiting greater loyalty and patronage intentions (Moschis *et al.*, 2004; Moschis, 2003). Consumers over the age of 60 are the focus in this paper.

Existing research into the effects of crises on shopping behaviour has increased significantly since the Covid-19 pandemic (Laato *et al.*, 2020; Sheth, 2020), though there remains a paucity of information on crises in general. Literature concerning shopping patterns during crises prior to the pandemic is limited (Sharma and Sonwalkar, 2013). Importantly, what such insights largely overlook are aspects of behavioural stability and its antecedents (Steenkamp and Maydeu-Olivares, 2015; Yuen *et al.*, 2020). There is also an under-appreciation of the impact of age on shopping behaviour in general (Monahan *et al.*, 2020).

This research makes the following contributions. First, we investigate the impact of age on behavioural change (as compared to stability) during times of crises, with a particular focus on elderly shoppers. Second, we explore the causes for change and stability in behaviour during crises based on social cognitive theory, protection and motivation theory and dual process theory. Finally, and based on that, we derive practical implications to support retailers in understanding and managing behavioural change during times of crisis, with a focus on elderly consumer segments.

Literature review

The literature linking crises to consumer behaviour focuses on events as varied as natural disasters (Baker, 2009; Forbes, 2017; Kennett-Hensel *et al.*, 2012; Sneath *et al.*, 2009), economic recessions (Pandelica and Pandelica, 2009; Sharma and Sonwalkar, 2013) and health emergencies (Boyle *et al.*, 2022; Galoni *et al.*, 2020). The overarching findings of such research include an acceptance that shopping behaviour differs between different kinds of consumers during a crisis whereas both was revealed behavioural changes as well as stability arise (Koos *et al.*, 2017; Sneath *et al.*, 2009).

The contemporary crisis-literature concentrates on the Covid-19 pandemic and its impact on retailing (Roggeveen and Sethuraman, 2020). Consequences of changed behaviour, such as improvisation in consumption and what shape and form this behaviour takes (e.g. changes in

shopping frequency) (Eger *et al.*, 2021; Hall *et al.*, 2021; Laato *et al.*, 2020; Sheth, 2020), are investigated in depth. The trigger of behavioural change and stability remain overlooked. Rarely researchers look into stable consumer behaviour with the exception of the retail context (Koos *et al.*, 2017; Sneath *et al.*, 2009).

Some existing research differentiates between shopper age cohorts in terms of shopping behaviour (Eger *et al.*, 2021). Elderly shoppers have a higher risk of developing serious complications, such as relating to illness, and therefore have significant reasons for behavioural change (Barber and Kim, 2021; Chakrawarty *et al.*, 2021). While the literature focusing on elderly shoppers and their behaviour during crises offers some in-depth insights, there remains a lack of a clear focus on shopping behaviour and its reasons (Monahan *et al.*, 2020). Shopping behaviour of the elderly is often connected with patronage behaviour towards stores (e.g. grocery stores) rather than with their shopping behaviour itself (Gittenberger and Teller, 2009; Teller and Gittenberger, 2011; Teller *et al.*, 2013).

A significant body of literature exists on the reasons for change, namely lack of control, stress, depression and uncertainty (Sharma and Sonwalkar, 2013), personal characteristics (Sneath *et al.*, 2009), fear of consumer market disruptions (Laato *et al.*, 2020), anxiety and fear (Kemp *et al.*, 2021), emotional and psychological mechanisms (Naeem, 2021), impulsive behaviour (Chen and Wang, 2016) and extrinsic and intrinsic motives (Lavuri *et al.*, 2022).

Work on antecedents of behavioural stability behaviour is rather limited (Moon *et al.*, 2021). According to Sharma and Sonwalkar (2013) and Sharma *et al.* (2020), antecedents of stability in shopping behaviour include personality traits, perceived economic stability and threat of the crisis, self-justification for purchasing, social psychological factor and fear of the unknown or uncertainty. The coping behaviour of others is one of the causes of stability during crisis (Yuen *et al.*, 2020).

Theoretical underpinning

Hypotheses and conceptual model (study 1)

Crises leads to psychological problems among consumers, increasing anxiety and fear of contamination (Dennis *et al.*, 2021; Maddux and Rogers, 1983). Protection and motivation theory (Rogers, 1975) suggests that fear leads to attitudinal and behavioural changes when individuals perceive a threat. Perceived threat refers to an individual's subjective evaluation of the severity and likelihood of a potential negative event or outcome. When individuals perceive a high level of threat, such as the risk of a health crisis or a natural disaster, it can trigger a fear response and motivate them to take action to protect themselves. The level of perceived threat influences customer behaviour (Dennis *et al.*, 2021) and represents a key factor in motivating behavioural change (Rogers, 1975; Shelton and Rogers, 1981). Therefore, we suggest that higher perceived threats lead to behavioural changes during crises:

H1. Perceived threat increases behavioural change.

Existing literature provides evidence that the risk perceived by the elderly during crises is lower than that perceived by younger people (Mertens *et al.*, 2020). This is due to the elderly people's resilience and coping strategies (MacLeod *et al.*, 2016; Ribeiro *et al.*, 2017). The elderly will typically have already faced critical situations in which they will have had to adapt to and use effective coping strategies (Mertens *et al.*, 2020). Following integrated threat theory (ITT) (Stephan and Stephan, 2000), the extent to which a group is perceived as threatening is influenced by various factors, including intergroup conflicts, status inequalities, strength of ingroup identification, knowledge of the outgroup and intergroup contact. In the context of

age groups, ITT helps by explaining why different age groups perceive different threats. Finally, we hypothesize:

H2. Elderly shoppers perceive a lower level of threat than younger consumers.

Different age groups can moderate the effect of perceived threat on behavioural change. According to socio-emotional selectivity theory (Carstensen *et al.*, 1999), an individual’s social goals and motivations change over time as they perceive that time as limited. Elderly shoppers who perceive time as limited prioritize emotional goals, such as seeking emotional meaning and maintaining close relationships. This age-related difference in social goals can influence the way individuals respond to perceived threats (Sattler *et al.*, 2022). Younger shoppers may be more motivated to seek information and engage in behavioural change to mitigate the threat, while elderly shoppers may prioritize emotional well-being and focus on maintaining social connections. Therefore, we suggest:

H3. Age group (young vs elderly shoppers) moderates the effect of perceived threat on behavioural change.

The theory of behavioural change maintenance (Kwasnicka *et al.*, 2016) states that customers are likely to continue their behaviour when they have a maintenance motive – that is to say, behaviour enjoyment, satisfaction with outcomes, self-determination or identity, along with other factors that contribute the continuation of behaviour over. Some shoppers have well-established habits, routines or environmental and social influences that can hinder behaviour change efforts (Kwasnicka *et al.*, 2016). Scholer *et al.* (2010) propose that risk-seeking behaviour under loss can serve the motivational need to restore the previous status quo. When the risky option offers the sole possibility of returning to the status quo, prevention motivation increases risk-seeking behaviour. Consumer resistance to sustainability interventions, as discussed by (Gonzalez-Arcos *et al.*, 2021), can explain the resistance to behavioural change during crises. Thus, we assume:

H4. Elderly shoppers exhibit a lower level of behavioural change than younger consumers.

The hypotheses are summarized in our research model (see Figure 1).

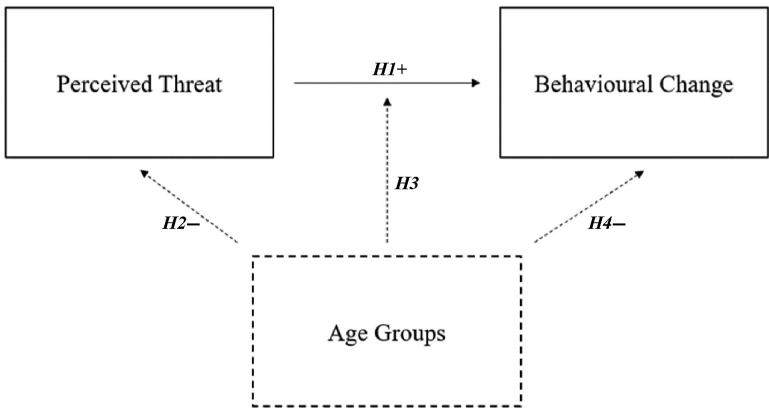


Figure 1.
Research model
(study 2)

Source(s): Figure by authors

In the following section, we explain our methodological approach before empirically testing the research model (see [Figure 1](#)) and identifying causes of change and stability (see [Table 1](#)).

Conceptual frame (study 2)

By employing insights from the Protection and Motivation theory (PMT) ([Rogers, 1975](#)), dual process theory ([Gawronski and Creighton, 2013](#); [Posner and Snyder, 1975](#)) and social cognitive theory ([Bandura, 2014](#)), we identify antecedents of behavioural change and stability during crisis.

Causes of behavioural change and stability either arise from environmental sources of information or interpersonal factors ([Bandura, 2014](#); [Floyd et al., 2000](#)). Environmental influences include verbal persuasion and observational learning ([Floyd et al., 2000](#)), while interpersonal factors are divided into personal and cognitive factors and behavioural ones ([Bandura, 2014](#)). According to PMT ([Maddux and Rogers, 1983](#)), fear is an important cause of change ([Rogers, 1975](#); [Shelton and Rogers, 1981](#)). But people are also likely to maintain behaviour which is in line with relevant social changes (e.g. crises) ([Kwasnicka et al., 2016](#)).

To understand the mental processes involved in the social judgements and behaviours of individuals, the focus is on beliefs, the relationship between attitudes and behaviour, and prejudice and stereotyping (i.e. dual process theory) ([Gawronski and Creighton, 2013](#)). According to [Posner and Snyder \(1975\)](#), mental processes include two general categories: implicit, automatic (unconscious) processes, and explicit, controlled (conscious) processes.

Those assumptions result in a conceptual frame (see [Table 1](#)).

Methodology

First, the quantitative study (study 1) was conducted and the data analysed. Its goal was to estimate the association between the variables in the conceptual model. Subsequently, the authors collected and analysed qualitative data (study 2) as the goal was to obtain in-depth insights ([Flick, 2009](#)).

We defined people aged 60 (AG 2) and over as elderly shoppers, as they exhibit very stable shopping behaviour ([Kwasnicka et al., 2016](#)). To illustrate the differences based on increasing age, younger people were used as a comparison group. We defined younger shoppers as those over 18 but under 30 years of age (AG1).

			Mental processes (dual process theory)	
			<i>Intrinsic, unconscious processes</i>	<i>Extrinsic, conscious processes</i>
Origin of causes (social cognitive theory and protection and motivation theory)	<i>Inter-personal factors</i>	<i>Personal, cognitive factors</i>	Personal factors	
		<i>Behavioural factors</i>	Social factors	
			Cultural factors	
			Psychological factors	
	<i>Environmental factors</i>			Technological factors
				Governmental factors
				Socioeconomic factors

Source(s): Table by authors

Table 1.
Conceptual frame
(study 1)

Quantitative study (study 1)

To test the conceptual model, we conducted a survey using a self-administered questionnaire on Austrian subjects. We explored whether and how consumer purchasing behaviour changed (in comparison to before a crisis) due to a crisis. We included the perceived threat of crises in general and focused on general shopping behaviour in retail settings. Based on the notions of [Rossiter \(2002\)](#), we consider both constructs to represent perceptions of concrete phenomena (see [Table 3](#)), and, consequently, we used single-item measures. The reduced complexity and time of single-item measures ([Nagy, 2002](#)) and the reduced occurrence of common method bias ([Bergkvist and Rossiter, 2007](#)) support our decision. To avoid misunderstanding, we clearly define our constructs through a brief introduction to the respondents.

The population of interest consisted of potential retail customers (>17 years). The final sample consisted of 643 female (55.5%) and male (44.5%) Austrian consumers (100%) (see [Table 2](#)).

We used different measurement scales from the literature as a basis, developed them further and adapted them to the situation of the study. The measurements are based on a 5-point Likert scale which ranged from -2 to +2 (see [Table 3](#)). As all of these measures are single-item measures, no internal consistency testing (Cronbach's α) was necessary. We included a common method bias marker in the survey by using an ex ante strategy to increase the respondents' willingness to answer the survey and provide truthful, non-influenced responses ([Rodríguez-Ardura and Meseguer-Artola, 2020](#)).

Qualitative study (study 2)

The goal was to identify causes of change and stability by analysing information conveyed through language. The qualitative study was conducted during the Covid-19 pandemic.

The population of interest was Austrian shoppers, divided into two age groups AG1 and AG2. The sample consisted of 51 Austrian consumers (100%) made up of 31 shoppers (60%) from AG1 and 20 shoppers (40%) from AG2. The interviewees were recruited using a

Table 2.
Sample demographics
(study 2)

Demographic	Frequency	Percentage	Demographic	Frequency	Percentage
Gender			Income (per month		
Female	357	55.5%	Till 1,000	39	6.1%
Male	286	44.5%	1,001–2,000	117	18.2%
Diverse	0	0%	2,001–3,000	153	23.8%
			3,001–4,000	11	18.2%
Age			4,001–5,000	54	8.4%
18–19	35	5.4%	Above 5,000	31	4.8%
20–29	227	35.3%	No Answer	132	20.5%
60–69	195	30.3%			
70–75	123	19.1%	Household size		
>75	63	9.8%	One person	149	23.2%
			Two persons	318	49.5%
Main residence			Three persons	93	14.5%
City	308	47.9%	Four persons	55	8.6%
Smaller town/suburb	119	18.5%	Five and more persons	28	4.4%
Rural area	216	33.6%	Origin		
Source(s): Table by authors			Austria	643	100%

Scale	Type of scale	Description
(1) Age	Numeric open question	Please tell us your exact age (in years)
(2) Perceived threat based on “external force” developed by Izadi et al. (2019)	5-point scale: “not affected at all” to “very strongly affected”	Having a look at the crisis right now. Businesses are closed except for grocery stores, drugstores and tobacconists, pharmacies (and a few other exceptions). Let’s discuss with your feelings around the developments of the last weeks related to the expansion of the virus <i>How much do you feel personally affected by the developments around the crisis?</i>
(3) Behavioural change based on “readiness to change” from Rollnick et al. (1992)	5-point scale: “nothing changed at all” to “changed a lot”	Now please imagine that the crisis has already passed. Please rate the following statements in general terms in relation to shopping in stores where you normally store. The more a statement applies to you, the further to the right or left you can place your statement <i>My shopping behaviour after the crisis will changed compared to the time before the crisis</i>

Source(s): Table by authors

Table 3.
Measurement scales

convenience sampling approach. The interviews were transcribed according to [Dresing and Pehl \(2018\)](#) and analysed by means of qualitative content analysis, consistent with [Mayring’s \(2015\)](#) findings. The authors developed the category system by means of a deductive and inductive approach. To ensure high-quality analysis, the transcripts were double-coded by two independent coders. The assignment was not arbitrary and capricious, but the reliability coefficient, kappa (>0.7), was assessed (0.86 for AG2, and 0.97 for AG1).

Results

Differences between age groups (study 1)

We display multiple results using multiple methods. [Table 4](#) gives an overview of the hypotheses, their derivation, the different analysis methods and whether the hypotheses are supported or not.

The effect of perceived threat on behavioural change at time of crisis

The results suggest that there is a significant positive effect of perceived threat on shoppers’ behavioural change after a crisis. Based on the distributions between both groups, Kolmogorov–Smirnov $p < 0.001$, regression analysis using bootstrapping (5,000 resamples) was used ([Field, 2018](#)). The overall model provides a moderate level of fit ($R^2 = 0.024$; adjusted $R^2 = 0.022$). There is statistical evidence that with increasing perception of threat, the respondents are willing to change more about their shopping behaviour ($F(1, 641) = 15.515$ $p < 0.001$; standardized coefficient $B = 0.154$, $p < 0.001$). Thus, we can confirm [H1](#).

The moderating role of age groups

A Mann–Whitney U-test was calculated to determine if there were differences in perceived threat between elderly and younger shoppers. The distributions differed between both groups, Kolmogorov–Smirnov $p < 0.001$. There was a statistically significant difference in

Table 4.
Results and hypothesis
derivation

Hypothesis	Hypothesis derivation	Analysis method	Supported
H1 Perceived threat increases behavioural change	Protection and motivation theory (Rogers, 1975)	Non-parametric test (regression using bootstrapping) (Field, 2018)	Yes
H2 Elderly shoppers perceive a lower level of threat than younger consumers	Resilience and coping strategies (Ribeiro <i>et al.</i> , 2017; MacLeod <i>et al.</i> , 2016)	Non-parametric test (Mann–Whitney test) (Field, 2018)	Yes
H3 Age group (young vs elderly shoppers) moderates the effect of perceived threat on behavioural change	Integrated Threat Theory (Stephan and Stephan, 2000)	Simple moderation analysis using PROCESS model 1 (Hayes, 2022)	No
H4 Elderly shoppers exhibit a lower level of behavioural change than younger consumers	Socioemotional selectivity theory (Carstensen <i>et al.</i> , 1999)	Non-parametric test (Mann–Whitney test) (Field, 2018)	Yes
Source(s): Table by authors			

perceived threat between elderly and younger consumers, $U = 43,281.500$, $Z = -3,014$, $p < 0.05$. Therefore, we can support **H2**.

To assess the moderating role of age groups, we conducted a simple moderation analysis using PROCESS model 1 (Hayes, 2022). Since all variables are operationalized by single measurement scales, we used PROCESS rather than structural equation modelling. The overall model was significant, $F(3, 96) = 13.1727$, $p < 0.001$, predicting 5.82% of the variance. A moderation analysis was run to determine whether the interaction between age groups and perceived threat significantly predicts behavioural change. Analysis did not show that age groups moderated the effect between perceived threat and behavioural change significantly, $\Delta R^2 = 24.13\%$, $F(1, 639) = 0.75$, $p = 0.9309$, 95% CI $[-0.171, 0.157]$, interaction term = -0.007 . These results cannot support **H3**.

To identify differences between age groups, a non-parametric test, namely Mann–Whitney U-test, was used. The distributions differed between both groups, Kolmogorov–Smirnov $p < 0.001$. There was a highly statistically significant difference in behavioural changes in times of crises between elderly and younger consumers, $U = 38,299.000$, $Z = -5,210$, $p < 0.001$. Therefore, we can confirm **H4**.

Causes of change and stability in shopping behaviour (study 2)

Changes in behaviour. Consumer behaviour was driven by factors including environmental influences such as governmental factors (e.g. state regulations and recommendations), and interpersonal, social or psychological factors. Representative comments included: “... so governmental regulations have to be taken seriously and I also think it’s good that these were set. On the one hand to comply with them, on the other hand, to protect others and yourself ...” [governmental factor, young interviewee].

Intrinsic unconscious processes, such as the emotions of anxiety and fear, are factors that promote behavioural change. Consumers changed their behaviour mainly in terms of offline retail purchasing (frequency, location, average purchase, etc.). For example, “... we went shopping more often, we made smaller purchases for that. ... Now we make a big purchase, which again lasts for a week ...” [changes in behaviour, younger interviewee] describe factors that promote behavioural change and describe extrinsic, conscious processes.

Elderly shoppers tended to have friends or family members shop for them during the lockdown periods of the crisis, based on the recommendations of the government (governmental factors) or psychological factors (anxiety, fear). Illustrative explanations included, "... I do not want to get infected; I am one of the high-risk patients and of course I am afraid ..." [avoid shopping + psychological and governmental factors; elderly interviewee]. In addition, elderly shoppers supported local businesses (cultural factors). Compared to younger shoppers, this change in behaviour was more pronounced in AG2. However, when these behavioural changes did occur among younger shoppers (e.g. support of local shops), they remained after the crisis was over.

Stability in behaviour. Different phases displayed different shopping behaviour between younger and elderly shoppers. At the beginning of a crisis, younger consumers tended to change their behaviour more than older ones, which can be explained by technological factors. Based on their limited access to social media, AG2 was not so aware of the situation and sometimes could not make a channel switch (to online). Another environmental factor was the limited mobility of older persons. Their access to grocery retailers was often restricted, so they shopped at grocery stores located close to home; "... at the beginning of the crisis, I had the same buying behaviour as before. That is, I went where it was closest to me ..." [closeness of the store; elderly interviewee].

Certain personal factors, specifically having no need for change and unwillingness to change, favoured stability in behaviour among the older age cohort. For example: "... Because I didn't have to. I went shopping not more often than usual, but still the same as always ..." [no need for behavioural change; elderly interviewee]. Overall, the initial phase of a crisis was characterized by stability in behaviour among the elderly; "... at the beginning I was reassured because I have good basic equipment at home, it is so in my nature ..." [stability in behaviour; elderly shopper].

Consumers often returned to their pre-crisis shopping patterns. Elderly shoppers, in particular, are strongly habituated to their shopping behaviour; "... after a crisis, I will go shopping again once a week and I will do it myself again and not from the daughter ..." [stability in behaviour; elderly interviewee]. This behaviour was influenced by interpersonal factors such as social (e.g. importance of personal contact), personal (no need for change) and psychological (e.g. rejection of change) bases. For example, an elderly shopper noted: "... because it's never really necessary and I buy regionally and because personal contact is very important to me ..." [personal and social antecedents for stability; elderly interviewee]. Environmental influences, such as the removal of governmental regulations (governmental factors) or return to past behaviours by others (social factors), also reinforced the habituation of behaviour. Elderly people tended not to change their online shopping behaviour and switch to online purchase even after crises (technological factor) (e.g. "... I have never learned online shopping and I will never learn it. Because it is not necessary and because the personal is very important to me ..." [online shopping; elderly interviewee]). Explaining this, we identified reasons including the importance of personal contacts, perceived lack of need and the avoidance of change, as well as the preference for tangible products.

Discussion

Theoretical implications

Behavioural change vs. stability. This research adds to the literature on consumer behaviour during times of crises (Koos *et al.*, 2017; Lavuri *et al.*, 2022; Naeem, 2021) by focusing on elderly shoppers. In doing so, we complement the research of Di Crosta *et al.* (2021) and Sheth (2020) to show what affects (and how age impacts) behavioural change and behavioural stability. We confirm the notions of Barber and Kim (2021), Chakrawarty *et al.* (2021) and Monahan *et al.* (2020) to find that elderly shoppers rarely break with their learnt routines in

terms of shopping offline, whereas the younger cohorts are more liable to behavioural change during such uncertain times. We see that perceived threat of the crisis leverage the impact on behavioural change and stability. The findings suggest that there is a difference in perception of threat and behavioural change comparing shoppers, which reinforces to the findings of Mertens *et al.* (2020).

Triggers of behavioural change and behavioural stability. Our research explores the reasons for triggers of behavioural change and behavioural stability during a crisis (*contribution 2*). Based on social cognitive theory (Bandura, 2014), dual process theory (Gawronski and Creighton, 2013; Posner and Snyder, 1975) and protection motivation theory (Floyd *et al.*, 2000; Maddux and Rogers, 1983; Rogers, 1975) – and complementing the findings of Ramya and Mohamed Ali (2016), Qazzafi (2020) and Thangasamy and Patikar (2014) – we find that interpersonal and environmental influences are mostly responsible for both behavioural change and behavioural stability. We combine interpersonal factors from social cognitive theory (Bandura, 2014) with intrinsic, unconscious processes from dual process theory (Gawronski and Creighton, 2013). Primarily these are of a personal, social, cultural or psychological nature. Further, we confirm that environmental and extrinsic conscious processes (Bandura, 2014; Gawronski and Creighton, 2013) are reflected in technological, governmental and socioeconomic factors. It was unexpected to see that elderly shoppers are less threatened by crises than younger shoppers (Barber and Kim, 2021).

Managerial implications

Sense of normalcy during uncertain times. The paper demonstrates that crises do change behaviour; however, in particular, elderly consumers display a stable and often unchanged shopping behaviour. During a crisis, retailers need to limit the changes made to their retail offer and services. We therefore contend that retailers should be consistent with respect to personnel resources and service (e.g. giving advice and assistance, especially for fresh products like meat and bread), in terms of purchase and payment processes (e.g. staffed cash desks, acceptance of cash payment), within inventory management (e.g. use of substitute products instead of OOS) and in store merchandising (e.g. product placement). By doing so, retailers create a familiar in-store environment that enhances shoppers' trust and confidence in the retailer's ability to meet their needs, even under difficult circumstances.

Special needs of the elderly shoppers during crises. Retailers need to understand the specific shopping behaviour of elderly consumers. During times of crisis, elderly shoppers rely on policies and guidelines provided by the retailer to contain a crisis (e.g. safety and hygiene measurements at cash desks, usage of face masks). By implementing such policies within the store, retailers decrease the perceived threat related to a crisis, and, consequently, satisfaction with the store increases. Compared to younger shoppers, the elderly ones tend not shift to online shopping. However, retailers should focus on hybrid shopping channels like "Click and Collect".

Understanding reasons for communicating. When communicating with elderly shoppers during crises, retailers should include environmental factors (compliance and implementation of security measures to contain crises). Communicating interpersonal factors, such as personal advice within the stores, helps retailers to direct their shoppers' frequency in offline stores. Distribution of information based on psychological factors (e.g. offering reassurance from anxiety or fear during crises, underlining the availability of goods) and personal factors (e.g. health protection within the stores) helps stabilise behaviour.

Limitations and implications for future research

As with all research, this study has limitations. The data undoubtedly reflect views of consumers at a specific time as the studies were conducted during a crisis. Transferability to

other crises, such as natural disasters, is limited because of the contextual nature of these data. For future research, it would be beneficial to distinguish between different crisis origins and to draw comparisons. Other limitations relate to the use of telephone interviews and the danger of missing out on interviewees' non-verbal communication. The authors have complied with the legal requirements at the time, as there was no alternative option. Future research should include electronic point of sale data. The single-item measures are based on literature-based measurement scales and measure constructs which are clearly defined and narrow in scope. For future research, we would recommend the inclusion of multidimensional measures and structural equation modelling.

References

- Baker, S.M. (2009), "Vulnerability and resilience in natural disasters: a marketing and public policy perspective", *Journal of Public Policy and Marketing*, Vol. 28 No. 1, pp. 114-123, doi: [10.1509/jppm.28.1.114](https://doi.org/10.1509/jppm.28.1.114).
- Bandura, A. (2014), "Social-cognitive theory", in Ewen, R.B. (Ed.), *An Introduction to Theories of Personality*, 7th ed., Taylor & Francis, Hoboken, pp. 341-360.
- Barber, S.J. and Kim, H. (2021), "COVID-19 worries and behavior changes in older and younger men and women", *The Journals of Gerontology, Series B, Psychological sciences and social sciences*, Vol. 76 No. 2, pp. e17-e23, doi: [10.1093/geronb/gbaa068](https://doi.org/10.1093/geronb/gbaa068).
- Bergkvist, L. and Rossiter, J.R. (2007), "The predictive validity of multiple-item versus single-item measures of the same constructs", *Journal of Marketing Research*, Vol. 44 No. 2, pp. 175-184, doi: [10.1509/jmkr.44.2.175](https://doi.org/10.1509/jmkr.44.2.175).
- Boyle, P., Bond, R., Martinez Carracedo, J., Simmons, G., Mulvenna, M. and Hollywood, L. (2022), "The impact of the COVID -19 pandemic on grocery shopper behaviour: analysis of shopper behaviour change using store transaction data", *Journal of Consumer Behaviour*, Vol. 21 No. 2, pp. 259-271, doi: [10.1002/cb.1999](https://doi.org/10.1002/cb.1999).
- Burt, S. and Gabbott, M. (1995), "The elderly consumer and non-food purchase behaviour", *European Journal of Marketing*, Vol. 29 No. 2, pp. 43-57, doi: [10.1108/03090569510080941](https://doi.org/10.1108/03090569510080941).
- Carstensen, L.L., Isaacowitz, D.M. and Charles, S.T. (1999), "Taking time seriously. A theory of socioemotional selectivity", *The American Psychologist*, Vol. 54 No. 3, pp. 165-181, doi: [10.1037/0003-066x.54.3.165](https://doi.org/10.1037/0003-066x.54.3.165).
- Chakrawarty, A., Ranjan, P., Klanidhi, K.B., Kaur, D., Sarkar, S., Sahu, A., Bhavesh, M., Baitha, U., Kumar, A. and Wig, N. (2021), "Psycho-social and behavioral impact of COVID-19 on middle-aged and elderly individuals: a qualitative study", *Journal of Education and Health Promotion*, Vol. 10, p. 269, doi: [10.4103/jehp.jehp_1458_20](https://doi.org/10.4103/jehp.jehp_1458_20).
- Chen, Y.-F. and Wang, R.-Y. (2016), "Are humans rational? Exploring factors influencing impulse buying intention and continuous impulse buying intention", *Journal of Consumer Behaviour*, Vol. 15 No. 2, pp. 186-197, doi: [10.1002/cb.1563](https://doi.org/10.1002/cb.1563).
- Dennis, D., Radnitz, C. and Wheaton, M.G. (2021), "A perfect storm? Health anxiety, contamination fears, and COVID-19: lessons learned from past pandemics and current challenges", *International Journal of Cognitive Therapy*, Vol. 14 No. 3, pp. 497-513, doi: [10.1007/s41811-021-00109-7](https://doi.org/10.1007/s41811-021-00109-7).
- Di Crosta, A., Ceccato, I., Marchetti, D., La Malva, P., Maiella, R., Cannito, L., Cipi, M., Mammarella, N., Palumbo, R., Verrocchio, M.C., Palumbo, R. and Di Domenico, A. (2021), "Psychological factors and consumer behavior during the COVID-19 pandemic", *Public Library of Science ONE*, Vol. 16 No. 8, e0256095, doi: [10.1371/journal.pone.0256095](https://doi.org/10.1371/journal.pone.0256095).
- Dresing, T. and Pehl, T. (2018), *Praxisbuch Transkription: Regelsysteme, Software und praktische Anleitungen für qualitative ForscherInnen*, 2. Aufl, Dr. Dresing und Pehl GmbH, Marburg.

- Eger, L., Komárková, L., Egerová, D. and Mičík, M. (2021), "The effect of COVID-19 on consumer shopping behaviour: generational cohort perspective", *Journal of Retailing and Consumer Services*, Vol. 61, 102542, doi: [10.1016/j.jretconser.2021.102542](https://doi.org/10.1016/j.jretconser.2021.102542).
- Eurostat (2020), "Corona-Krise: umsatzentwicklung des Einzelhandels in der Europäischen Union im April 2020*", available at: <https://de.statista.com/statistik/daten/studie/1128380/umfrage/corona-umsatzentwicklung-einzelhandel-eu/> (accessed 13 June 2022).
- Field, A. (2018), *Discovering Statistics Using IBM SPSS Statistics*, 5th ed., SAGE edge, SAGE, Los Angeles, London, New Delhi, Singapore, Washington DC, Melbourne.
- Flick, U. (2009), *An Introduction to Qualitative Research*, 4th ed., SAGE, London, Thousand Oaks, New Delhi, Singapore.
- Floyd, D.L., Prentice-Dunn, S. and Rogers, R.W. (2000), "A meta-analysis of research on protection motivation theory", *Journal of Applied Social Psychology*, Vol. 30 No. 2, pp. 407-429, doi: [10.1111/j.1559-1816.2000.tb02323.x](https://doi.org/10.1111/j.1559-1816.2000.tb02323.x).
- Forbes, S.L. (2017), "Post-disaster consumption: analysis from the 2011 Christchurch earthquake", *The International Review of Retail*, Vol. 27 No. 1, pp. 28-42, Distribution and Consumer Research, doi: [10.1080/09593969.2016.1247010](https://doi.org/10.1080/09593969.2016.1247010).
- Galoni, C., Carpenter, G.S. and Rao, H. (2020), "Disgusted and afraid: consumer choices under the threat of contagious disease", *Journal of Consumer Research*, Vol. 47 No. 3, pp. 373-392, doi: [10.1093/jcr/ucaa025](https://doi.org/10.1093/jcr/ucaa025).
- Gawronski, B. and Creighton, L.A. (2013), "Dual process theories", in Carlston, D.E. (Ed.), *The Oxford of Social Cognition*, New York, pp. 238-312.
- Gittenberger, E. and Teller, C. (2009), "Betriebstypenspezifisches Kaufverhalten von älteren KonsumentInnen. [Store format specific shopping behaviour of elderly consumers]", in Hanappi-Egger, E. and Schnedlitz, P. (Eds), *Ageing Society - Altern in der Stadt: Aktuelle Trends und ihre Bedeutung für die strategische Stadtentwicklung*, Facultas, Vienna, pp. 346-394.
- Gonzalez-Arcos, C., Joubert, A.M., Scaraboto, D., Guesalaga, R. and Sandberg, J. (2021), "How do I carry all this now? Understanding consumer resistance to sustainability interventions", *Journal of Marketing*, Vol. 85 No. 3, pp. 44-61, doi: [10.1177/0022242921992052](https://doi.org/10.1177/0022242921992052).
- Hall, M.C., Prayag, G., Fieger, P. and Dyason, D. (2021), "Beyond panic buying: consumption displacement and COVID-19", *Journal of Service Management*, Vol. 32 No. 1, pp. 113-128, doi: [10.1108/josm-05-2020-0151](https://doi.org/10.1108/josm-05-2020-0151).
- Hamer, K. (n.d.), "COVID-19: shopper buying behaviour and out-of-stock products", available at: <https://www.retailinsight.io/blog/covid-19-shopper-buying-behaviour-and-out-of-stock-products> (accessed 13 June 2022).
- Hayes, A.F., (2022), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach, Methodology in the Social Sciences*, 3rd ed., The Guilford Press, New York, London.
- Izadi, A., Rudd, M. and Patrick, V. (2019), "The way the wind blows: direction of airflow energizes consumers and fuels creative engagement", *Journal of Retailing*, Vol. 95 No. 4, pp. 143-157, doi: [10.1016/j.jretai.2019.10.005](https://doi.org/10.1016/j.jretai.2019.10.005).
- Kemp, E., Bui, M. and Porter, I.M. (2021), "Preparing for a crisis: examining the influence of fear and anxiety on consumption and compliance", *Journal of Consumer Marketing*, Vol. 38 No. 3, pp. 282-292, doi: [10.1108/jcm-05-2020-3841](https://doi.org/10.1108/jcm-05-2020-3841).
- Kennett-Hensel, P.A., Sneath, J.Z. and Lacey, R. (2012), "Liminality and consumption in the aftermath of a natural disaster", *Journal of Consumer Marketing*, Vol. 29 No. 1, pp. 52-63, doi: [10.1108/07363761211193046](https://doi.org/10.1108/07363761211193046).
- Koos, S., Vihalemm, T. and Keller, M. (2017), "Coping with crises: consumption and social resilience on markets", *International Journal of Consumer Studies*, Vol. 41 No. 4, pp. 363-370, doi: [10.1111/ijcs.12374](https://doi.org/10.1111/ijcs.12374).

- Kwasnicka, D., Dombrowski, S.U., White, M. and Sniehotta, F. (2016), "Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories", *Health Psychology Review*, Vol. 10 No. 3, pp. 277-296, doi: [10.1080/17437199.2016.1151372](https://doi.org/10.1080/17437199.2016.1151372).
- Laato, S., Islam, A.N., Farooq, A. and Dhir, A. (2020), "Unusual purchasing behavior during the early stages of the COVID-19 pandemic: the stimulus-organism-response approach", *Journal of Retailing and Consumer Services*, Vol. 57, 102224, doi: [10.1016/j.jretconser.2020.102224](https://doi.org/10.1016/j.jretconser.2020.102224).
- Lavuri, R., Jaiswal, D. and Thaichon, P. (2022), "Extrinsic and intrinsic motives: panic buying and impulsive buying during a pandemic", *International Journal of Retail and Distribution Management*, Vol. 51 No. 2, pp. 190-204, doi: [10.1108/ijrdm-01-2022-0010](https://doi.org/10.1108/ijrdm-01-2022-0010).
- MacLeod, S., Musich, S., Hawkins, K., Alsgaard, K. and Wicker, E.R. (2016), "The impact of resilience among older adults", *Geriatric Nursing (New York, N.Y.)*, Vol. 37 No. 4, pp. 266-272, doi: [10.1016/j.gerinurse.2016.02.014](https://doi.org/10.1016/j.gerinurse.2016.02.014).
- Maddux, J.E. and Rogers, R.W. (1983), "Protection motivation and self-efficacy: a revised theory of fear appeals and attitude change", *Journal of Experimental Social Psychology*, Vol. 19 No. 5, pp. 469-479, doi: [10.1016/0022-1031\(83\)90023-9](https://doi.org/10.1016/0022-1031(83)90023-9).
- Mayring, P. (2015), *Qualitative Inhaltsanalyse: Grundlagen und Techniken*, Beltz Pädagogik, 12., aktualisierte und überarb. Aufl., Beltz, Weinheim.
- Mertens, G., Gerritsen, L., Duijndam, S., Saleminck, E. and Engelhard, I.M. (2020), "Fear of the coronavirus (COVID-19): predictors in an online study conducted in March 2020", *Journal of Anxiety Disorders*, Vol. 74, 102258, doi: [10.1016/j.janxdis.2020.102258](https://doi.org/10.1016/j.janxdis.2020.102258).
- Monahan, C., Macdonald, J., Lytle, A., Apriceno, M. and Levy, S.R. (2020), "COVID-19 and ageism: how positive and negative responses impact older adults and society", *The American Psychologist*, Vol. 75 No. 7, pp. 887-896, doi: [10.1037/amp0000699](https://doi.org/10.1037/amp0000699).
- Moon, J., Choe, Y. and Song, H. (2021), "Determinants of consumers' online/offline shopping behaviours during the COVID-19 pandemic", *International Journal of Environmental Research and Public Health*, Vol. 18 No. 4, p. 1593, doi: [10.3390/ijerph18041593](https://doi.org/10.3390/ijerph18041593).
- Moschis, G.P. (2003), "Marketing to older adults: an updated overview of present knowledge and practice", *Journal of Consumer Marketing*, Vol. 20 No. 6, pp. 516-525, doi: [10.1108/07363760310499093](https://doi.org/10.1108/07363760310499093).
- Moschis, G.P. (2012), "Consumer behavior in later life: current knowledge, issues, and new directions for research", *Psychology and Marketing*, Vol. 29 No. 2, pp. 57-75, doi: [10.1002/mar.20504](https://doi.org/10.1002/mar.20504).
- Moschis, G., Curasi, C. and Bellenger, D. (2004), "Patronage motives of mature consumers in the selection of food and grocery stores", *Journal of Consumer Marketing*, Vol. 21 No. 2, pp. 123-133, doi: [10.1108/07363760410525687](https://doi.org/10.1108/07363760410525687).
- Naeem, M. (2021), "Understanding the customer psychology of impulse buying during COVID-19 pandemic: implications for retailers", *International Journal of Retail and Distribution Management*, Vol. 49 No. 3, pp. 377-393, doi: [10.1108/ijrdm-08-2020-0317](https://doi.org/10.1108/ijrdm-08-2020-0317).
- Nagy, M.S. (2002), "Using a single-item approach to measure facet job satisfaction", *Journal of Occupational and Organizational Psychology*, Vol. 75 No. 1, pp. 77-86, doi: [10.1348/096317902167658](https://doi.org/10.1348/096317902167658).
- Pandelica, A. and Pandelica, I. (2009), "Consumers' reaction and organizational response in crisis context", *Annals of Faculty of Economics, University of Oradea, Faculty of Economics*, Vol. 4 No. 1, pp. 779-782.
- Posner, M.I. and Snyder, C.R.R. (1975), "Attention and cognitive control", in Solso, R.L. (Ed.), *Information Processing and Cognition*, Hillsdale, NJ: Erlbaum, pp. 55-85.
- Qazzafi, S. (2020), "Factor affecting consumer buying behavior: a conceptual study", *International Journal for Scientific Research and Development*, Vol. 8 No. 2, pp. 1205-1208.
- Ramya, N. and Mohamed Ali, S.A. (2016), "Factors affecting consumer buying behavior", *International Journal of Applied Research*, Vol. 2 No. 10, pp. 76-80.

- Ribeiro, M.d.S., Borges, M.d.S., Araujo, T.F. and Souza, M.C. (2017), "Coping strategies used by the elderly regarding aging and death: an integrative review", *Revista Brasileira de Geriatria e Gerontologia*, Vol. 20 No. 6, pp. 869-877, doi: [10.1590/1981-22562017020.170083](https://doi.org/10.1590/1981-22562017020.170083).
- Rodríguez-Ardura, I. and Meseguer-Artola, A. (2020), "Editorial: how to prevent, detect and control common method variance in electronic commerce research", *Journal of Theoretical and Applied Electronic Commerce Research*, Vol. 15 No. 2, doi: [10.4067/s0718-18762020000200101](https://doi.org/10.4067/s0718-18762020000200101).
- Rogers, R.W. (1975), "A protection motivation theory of fear appeals and attitude Change1", *The Journal of Psychology*, Vol. 91 No. 1, pp. 93-114, doi: [10.1080/00223980.1975.9915803](https://doi.org/10.1080/00223980.1975.9915803).
- Roggeveen, A.L. and Sethuraman, R. (2020), "How the COVID-19 pandemic may change the world of retailing", *Journal of Retailing*, Vol. 96 No. 2, pp. 169-171, doi: [10.1016/j.jretai.2020.04.002](https://doi.org/10.1016/j.jretai.2020.04.002).
- Rollnick, S., Heather, N., Gold, R. and Hall, W. (1992), "Development of a short 'readiness to change' questionnaire for use in brief, opportunistic interventions among excessive drinkers", *British Journal of Addiction*, Vol. 87 No. 5, pp. 743-754, doi: [10.1111/j.1360-0443.1992.tb02720.x](https://doi.org/10.1111/j.1360-0443.1992.tb02720.x).
- Rossiter, J.R. (2002), "The C-OAR-SE procedure for scale development in marketing", *International Journal of Research in Marketing*, Vol. 19 No. 4, pp. 305-335, doi: [10.1016/s0167-8116\(02\)00097-6](https://doi.org/10.1016/s0167-8116(02)00097-6).
- Sattler, S., Taflinger, S., Ernst, A. and Hasselhorn, F. (2022), "A moderated mediation model explaining the relationship between risk-group membership, threat perception, knowledge, and adherence to COVID-19 behavioral measures", *Frontiers in Public Health*, Vol. 10, 842368, doi: [10.3389/fpubh.2022.842368](https://doi.org/10.3389/fpubh.2022.842368).
- Scholer, A.A., Zou, X., Fujita, K., Stroessner, S.J. and Higgins, E.T. (2010), "When risk seeking becomes a motivational necessity", *Journal of Personality and Social Psychology*, Vol. 99 No. 2, pp. 215-231, doi: [10.1037/a0019715](https://doi.org/10.1037/a0019715).
- Sharma, V. and Sonwalkar, J. (2013), "Does consumer buying behavior change during economic crisis?", *International Journal of Economics and Business Administration*, Vol. 1 No. 2, pp. 33-48, doi: [10.35808/ijeaba/9](https://doi.org/10.35808/ijeaba/9).
- Sharma, P., Leung, T.Y., Kingshott, R.P.J., Davcik, N.S. and Cardinali, S. (2020), "Managing uncertainty during a global pandemic: an international business perspective", *Journal of Business Research*, Vol. 116, pp. 188-192, doi: [10.1016/j.jbusres.2020.05.026](https://doi.org/10.1016/j.jbusres.2020.05.026).
- Shelton, M.L. and Rogers, R.W. (1981), "Fear-arousing and empathy-arousing appeals to help: the pathos of persuasion", *Journal of Applied Social Psychology*, Vol. 11 No. 4, pp. 366-378, doi: [10.1111/j.1559-1816.1981.tb00829.x](https://doi.org/10.1111/j.1559-1816.1981.tb00829.x).
- Sheth, J. (2020), "Impact of Covid-19 on consumer behavior: will the old habits return or die?", *Journal of Business Research*, Vol. 117, pp. 280-283, doi: [10.1016/j.jbusres.2020.05.059](https://doi.org/10.1016/j.jbusres.2020.05.059).
- SnapRetail (2020), "The importance of crisis management plan for success", available at: <https://snapretail.com/small-business-retail-insight/importance-crisis-management-plan-success/#:~:text=It%20can%20minimize%20damages%20both%20in%20reputation%20and%20revenue&text=That%20has%20an%20impact%20on,before%20it%20inflicts%20untellable%20damages> (accessed 13 June 2022).
- Sneath, J.Z., Lacey, R. and Kennett-Hensel, P.A. (2009), "Coping with a natural disaster: losses, emotions, and impulsive and compulsive buying", *Marketing Letters*, Vol. 20 No. 1, pp. 45-60, doi: [10.1007/s11002-008-9049-y](https://doi.org/10.1007/s11002-008-9049-y).
- Statista (2021), "Shopping in times of COVID-19", available at: <https://www.statista.com/study/102152/covid-19-impact-on-consumer-shopping-behavior-worldwide/> (accessed 13 June 2022).
- Steenkamp, J.-B.E. and Maydeu-Olivares, A. (2015), "Stability and change in consumer traits: evidence from a 12-year longitudinal study, 2002-2013", *Journal of Marketing Research*, Vol. 52 No. 3, pp. 287-308, doi: [10.1509/jmr.13.0592](https://doi.org/10.1509/jmr.13.0592).
- Stephan, W. and Stephan, C. (2000), "An integrated threat theory of prejudice", in Es, O. (Ed.), *Reducing Prejudice and Discrimination*, 1st ed., Psychology Press, New York, pp. 23-45.

-
- Teller, C. and Gittenberger, E. (2011), "Patronage behaviour of elderly supermarket shoppers – antecedents and unobserved heterogeneity", *The International Review of Retail, Distribution and Consumer Research*, Vol. 21 No. 5, pp. 483-499, doi: [10.1080/09593969.2011.619701](https://doi.org/10.1080/09593969.2011.619701).
- Teller, C., Gittenberger, E. and Schnedlitz, P. (2013), "Cognitive age and grocery-store patronage by elderly shoppers", *Journal of Marketing Management*, Vol. 29 3 No. 4, pp. 317-337, doi: [10.1080/0267257x.2013.766627](https://doi.org/10.1080/0267257x.2013.766627).
- Thangasamy, E. and Patikar, G. (2014), "Factors influencing consumer buying behaviour: a case study", *Global Journal of Management and Business Research: EMarketing*, Vol. 14 No. 5, pp. 37-42.
- Yuen, K.F., Wang, X., Ma, F. and Li, K.X. (2020), "The psychological causes of panic buying following a health crisis", *International Journal of Environmental Research and Public Health*, Vol. 17 No. 10, p. 3513, doi: [10.3390/ijerph17103513](https://doi.org/10.3390/ijerph17103513).

About the authors

Teresa Schwendtner is lecturer at the Institute for Retailing, Sales and Marketing (JKU Business School) at the Johannes Kepler University Linz, Austria. Her research interest is on shopping behaviour, with a particular focus on changes, stability and resilience during times of crisis, in the retail industry. Teresa Schwendtner is the corresponding author and can be contacted at: teresa.schwendtner@jku.at

Sarah Amsl is lecturer at the Institute for Retailing, Sales and Marketing (JKU Business School) at the Johannes Kepler University Linz, Austria. Her research interest is on customer experience management, with a particular focus on service failure and consumer research in the retail and service industry.

Christoph Teller is professor of marketing and retail management and head of the Institute for Retailing, Sales and Marketing and Dean of the JKU Business School at the Johannes Kepler University Linz, Austria. His research is on store and agglomeration patronage behaviour, coopetition in retail agglomerations (shopping and town centers) and the measurement of attractiveness in an on- and offline retail context.

Steve Wood is dean of Surrey Business School and professor of retail marketing and management at the University of Surrey, UK. His research interests particularly focus on the internationalization of retailing; retail stores, locations, competition policy and supply networks, and retail pricing.