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# CONSUMERS' (IR)RESPONSIBLE SHOPPING DURING EMERGENCIES: A DEATH-ANXIETY PERSPECTIVE

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# CONSUMERS' (IR)RESPONSIBLE SHOPPING DURING EMERGENCIES: DRIVERS AND CONCERNS


## Abstract

**Purpose:** During emergencies and times of widespread social fear, such as wars and epidemics, society witnesses many instances of consumer misbehaviour, like panic buying and taking products from others. Therefore, this study aims to understand what drives consumers to enact socially responsible behaviour while shopping during emergencies.

**Design/methodology/approach:** We employ a quantitative approach with 400 responses from consumers who shopped during the pandemic.

**Findings:** Results show a positive relationship between consumers' awareness of the negative social consequences of shopping misbehaviour and their ascription of responsibility, which is positively moderated by death-by-emergency-related anxiety. Ascription of responsibility, in turn, has a positive impact on socially responsible behaviour.

**Originality**: Our research is the first to examine new applications of norm-activation theory in retailing. Furthermore, our research is the first to extend the theory by examining psychological factors that may regulate socially irresponsible behaviour. The research demonstrates the significant role of anxiety and attachment in facilitating the impact of awareness of negative consequences and aspirations of responsibility in the retail context, which has not previously been examined.



**Keywords:** Emergency; consumers' misbehaviour; norm-activation theory; terror management theory; store attachment; anxiety.

## Introduction

Emergencies, such as wars and epidemics, harm individuals, businesses and a country's economy (Schreiner and Baier, 2021), creating chaos and halting many economic and social activities. Consumers' changes in lifestyles and psychological states also transform consumption behaviour (Marikyan *et al.*, 2022a; Guthrie *et al.*, 2021). Recent examples are the COVID-19 pandemic (started in 2020) and the war in Ukraine (started in 2022), which both saw a surge in British shoppers panic buying essentials such as toilet roll and dried pasta (The Independent, 2022; Naeem, 2020). The changes posed new challenges for business and society, ranging from product shortages and the need for new forms of training and education to individual misbehaviours. Consumer misbehaviour refers to 'consumers' deliberate actions that violate commonly accepted rules and disrupt the desired order' (Jin *et al.*, 2022, p. 135). Accordingly, in this paper we define misbehaviour as irrational behaviour in a retail context – e.g. stockpiling goods above the buying limit imposed by retailers, panic buying and even behaving aggressively towards other shoppers and/or retail staff. These behaviours can be explained by fear of a shortage of survival resources such as food, water and necessities (Hamilton *et al.*, 2019).

Given the economic and social implications of socially irresponsible shopping behaviour, some governments often react by introducing a limit on the number of products consumers can buy per visit and redefining operational hours and rules for grocery shops. For instance, several European governments and large retail chains adopted new regulations during COVID-19 and the war in Ukraine. However, these rules are easily and often broken (e.g. members of the same household shop separately to circumvent limits on the maximum number of products sold per person).

As external regulation of prosocial behaviour (i.e. by the government) typically yields little result, misbehaviour may be explained by internal factors inherent to individuals.

Moreover, behaviour is shaped by internalised values (Schwartz, 1977). Therefore, it is important to explore how psychological and normative factors (e.g. understanding the consequences of personal actions, moral obligations and emotions) can facilitate socially responsible behaviour in retail. This knowledge can help retailers prevent consumer misbehaviour and understand how to deal with consumers when such behaviour occurs, which is crucial in marketing (Echeverri *et al.*, 2012).

Previous literature on misbehaviour mainly focuses on the effect of scarcity promoted by store managers (for instance, to enhance desire and exclusivity) (Cannon *et al.*, 2019; Hamilton *et al.*, 2019; Kristofferson *et al.*, 2017; Pizzi and Scarpi, 2013). Yet, since the COVID-19 health emergency in 2020, it became clear that scarcity could now derive – as it did in pre-industrial times – from external phenomena that are outside of management's control. Thus, scholars have taken a different perspective and investigated the impact of misbehaviour on the global economy and the lives of consumers rather than on product choice (Park *et al.*, 2022; Pantano *et al.*, 2021; Pantano *et al.*, 2020). The inquiry into individuals' behavioural changes during pandemics resulted in insights into goods stockpiling (Chen *et al.*, 2022; Omar *et al.*, 2021; Pantano *et al.*, 2020) and the antecedents of panic buying (Omar *et al.*, 2021). Still, current literature lacks evidence about the normative factors that may facilitate or diminish socially irresponsible buying; previous studies have mostly discussed and explored norms and social values regarding tourists' behaviour (O'Connor and Assaker, 2021). Moreover, research suggests that various psychological states, such as anxiety, fear and attachment, may regulate behaviour (Mende *et al.*, 2013; Greenberg *et al.*, 1995; Solomon *et al.*, 1991a,b). Emergencies such as the COVID-19 pandemic or the Ukraine war may create psychological conditions of fear, anxiety and stress (Gupta and Mukherjee, 2022b). Despite the potential impact of those variables on socially-oriented behaviour in the retail context, empirical evidence confirming their role in diminishing or facilitating prosocial behaviour is scarce.

Given the above, this study focuses on normative and emotional/psychological factors that help explain consumers' misbehaviour when shopping during emergencies. We build on norm-activation theory (NAT) (Schwartz, 1977) and use terror management theory (TMT) (Pyszczynski *et al.*, 1999) and attachment theory (Bowlby, 1979) to develop a conceptual model of moderated mediation. In doing so, we account for consumers' awareness of misbehaviours' negative consequences, the ascription of responsibility, death-related anxiety and store attachment. The employed NAT helps explain individuals' dispositions towards misbehaviour by considering the altruistic component of their behaviour. The adoption of TMT is guided by the utility of the theory in explaining behavioural patterns in emergency events (Park *et al.*, 2022; Pyszczynski *et al.*, 1999). It argues that individuals might behave differently in the face of an emergency, as they are driven by self-protection. Finally, attachment theory explains the potential difference in the behaviour of individuals with varying degrees of attachment. The findings of this paper contribute to the literature on consumer behaviour in emergency settings and shed light on the management of a phenomenon that has been witnessed globally and the relevant implications for society and marketing managers.

## Literature review

Consumer misbehaviour is a significant phenomenon in marketing: it can negatively impact the consumer journey and entail psychological or material damage to company stakeholders (Fullerton and Punj, 2004; Chaouali *et al.*, 2022). Irresponsible practices can take different forms, such as vandalism, shoplifting, verbal and physical abuse and financial fraud (Amasiatu and Shah, 2018). They can be directed against employees, merchandise, other consumers, the marketer's financial assets, and physical or electronic premises (Fullerton and Punj, 2004).

Some literature argues that belonging to a specific social group with certain demographic characteristics, such as low education and income, predefines misbehaviour

(Jacobsen and Barnes, 2020). However, researchers also found that people with diverse backgrounds can engage in socially irresponsible buying practices (Jacobsen and Barnes, 2020; Fullerton and Punj, 2004). Fullerton and Punj (2004) summarised the main reasons why people may engage in such practices: i) unfulfilled aspirations, ii) deviant thrill-seeking, iii) absence of moral constraints, iv) differential association, v) pathological socialisation, vi) provocative situational factors and vii) calculating opportunism.

Some empirical studies explain internal and external antecedents that predict misbehaviour (Chaouali *et al.*, 2022; Daunt and Greer, 2015; Lennon *et al.*, 2014). For instance, external factors, such as the high value of an object, easy access to objects and a lack of capable guardianship, can facilitate individuals' misbehaving intentions (Daunt and Greer, 2015). Individuals are likely motivated to engage in socially irresponsible practices when they have do not have a negative attitude towards those practices and are influenced by their peers (Evans *et al.*, 1996). Also, factors can be context specific. For example, when exploring misbehaviour during Black Friday, situational factors like the perception of crowding and inequity might act as direct predictors of misbehaviour (Lennon *et al.*, 2014). Less evidence is available about the normative factors underpinning misbehaviour. Personal values and norms have been found to explain the misbehaviour of consumers in the tourism and hospitality industry (Schaefers *et al.*, 2015). Still, the implications of normative factors (e.g. moral obligations and responsibilities) are under-researched, especially in retail, although their examination can shed light on individuals' predispositions towards misbehaviour (Schwartz, 1977). Accordingly, the next section will focus on theories explaining the normative antecedents of socially irresponsible behaviour in retail.

## Theoretical background and hypotheses development

Researchers in sustainable management and tourism have often adopted NAT to explain the relationship between attitude and behaviours (e.g., Onwezen *et al.*, 2013; De Groot and Steg, 2009). Indeed, NAT was adapted to investigate several diverse behaviours that affect society and communities. For instance, employees' policy compliance (Yazdanmehr and Wang, 2016) and consumers' intention to donate money (Chen *et al.*, 2019). According to NAT, 'altruistic behaviour originates from a moral obligation to prevent harm to a valued object' (Landon *et al.*, 2018, p. 959). These moral obligations can work as a moral compass, that is, as a psychological mechanism that limits consumers' misbehaviour (Korganokar *et al.*, 2021). Similarly, a willingness to contribute to the common good motivates consumers to make more sustainable choices (Pantano and Stylos, 2020). The awareness of the consequences of individual behaviour and the ascription of responsibility for the negative outcomes are the pillars of NAT and are thought to drive individuals' socially responsible behaviour. When an individual is aware of a negative consequence for others and ascribes responsibility for that consequence to him or herself (ascription of responsibility), then 'a corresponding personal norm is activated and followed by prosocial/pro-environmental behaviour' (Gao *et al.*, 2017, p. 278). People tend to misbehave if they feel that others will not disapprove of them (Wan *et al.*, 2021) or they will not feel shame (Jin *et al.*, 2022).

Furthermore, selfish shopping behaviour, such as stockpiling, taking away products from others and panic buying, can be driven by emergency-induced anxiety (e.g. fear of a virus or nuclear attack and the related risk of death) and affected by store attachment. How anxiety affects behaviour can be explained by TMT (Pyszczynski *et al.*, 1999). According to TMT, several human behaviours are oriented toward pursuing self-esteem for the purpose of psychological protection against anxiety. In turn, anxiety stems from the awareness of death's inevitability (Solomon *et al.*, 1991a). Death-by-emergency-related anxiety is a specific form of

anxiety (psychological distress) that occurs when the fear of imminent death arises (Pinar *et al*., 2022). Studies have demonstrated that it largely increases in individuals when they are continuously exposed to death or a death-related incident, when mortality rates increase or when individuals are threatened by fatal epidemics (Gundogan and Arpaci, 2022). The more intrusive the death-related thoughts become, the more anxiety is generated, and defensive mechanisms are put in place to manage terror and guarantee self-preservation. Usually, following society's norms and avoiding behaviours that are counter to cultural norms are typical anxiety management strategies (Greenberg *et al*., 1995). However, these mechanisms might have lower efficiency in protecting individuals with a generalised anxiety disorder (GAD) from developing clinical symptoms (Pinar *et al*., 2022).

The role of attachment can be explained by attachment theory, which postulates that individuals' attachment to an entity affects their intentions toward that entity (Bowlby, 1979). Translating the tenets of attachment theory to marketing and management domains (Palmatier *et al.*, 2006), it has been demonstrated that customers can develop an emotional bond with stores and firms and that organisations that respond to customers' attachment are more successful (Mende *et al.*, 2013). Yet, research on the effects of customers' attachment to stores is still in its infancy, and recent studies call for further research on store attachment (Gorji *et al.*, 2021). Here, we aim to build on NAT by using TMT and attachment theory to examine buyers' misbehaviour in the retail context.

***Awareness of the negative consequences of shopping misbehaviours***

The perception of shortage/scarcity of certain goods can lead consumers to different behaviours (Cannon *et al.*, 2019; Hamilton *et al.*, 2019; Kristofferson *et al.*, 2017; Pizzi and Scarpi, 2013), including aggression (Kristofferson *et al.*, 2017) or other misbehaviours. Literature has documented that consumer misbehaviour can affect people's health and wellbeing nationally

and locally (Pantano *et al.*, 2020). Accordingly, we highlight the importance of focusing on the negative effects of consumer shopping misbehaviour. Negative consumer behaviours have always existed. Recent literature has considered the managerial and social relevance of negative, pandemic-related behaviours and calls for investigations of the phenomenon to understand consumers' shopping behaviour during emergencies such as pandemics (Bhasin *et al.*, 2020; Pantano *et al.*, 2020).

In particular, the behaviour exhibited by consumers during the COVID-19 health emergency has demonstrated that awareness of responsibility varies greatly interpersonally. It ranges from negationists to plotters – who deny the very existence of the virus and purposely behave contrary to and sabotage the rules (Chen *et al.*, 2022). Similar behaviours can now be observed in the Ukraine war, with the spreading of propaganda, fake news, conspiracy theories, etc. (Magdin, 2022; Sakwa, 2022).

Finally, other consumers put their interests above the public good, showing no remorse in taking away products from others by greedily stockpiling excessive amounts they would never be able to consume (Pantano *et al.*, 2020).

***From awareness of the negative consequences to the ascription of responsibility***

Previous studies agree that consumers who are more aware of an issue feel greater responsibility. This relationship has been established in several domains of study for different agents, such as tourists (Gao *et al.*, 2017), consumers (Zlatevska and Spence, 2016), and businesses (Flammer, 2013). In particular, scholars have found that having strong personal values is not enough for action. For instance, being sensitive to green issues was insufficient for consumers to behave in an environmentally friendly way (Scarpi *et al.*, 2020). Yet, scholars have argued that individuals could misbehave even if they are aware of the problem, as correct behaviour is only enacted when individuals are aware of the consequences of their wrong

behaviour and understand how their actions worsen the issue (Steg and DeGroot, 2010; Rosenthal and Leng, 2020).

Accordingly, the consumers who behave more responsibly during the pandemic should be those who can see more clearly the link between their behaviour and the social problems it might cause and therefore feel responsible for those problems. Although this proposition is new in the marketing literature, we consider it analogous to the findings that tourists who behave better are those who can relate overtourism problems to their behaviour and feel responsible for them (Confente and Scarpi, 2021). Building on those findings, we propose that how responsibly consumers behave when shopping in times of emergency stems from how much they are aware of the negative consequences of misbehaviour. Therefore, we hypothesise:

*H1: Awareness of the negative social consequences of shopping misbehaviour positively impacts consumers' ascription of responsibility.*

***The role of death-by-emergency-related anxiety***

Death-by-emergency-related anxiety is the main factor in TMT, as several everyday-life behaviours are supposedly enacted to manage it. For instance, individuals manage death-by-emergency-related anxiety by living up to culturally defined moral standards, hoping for immortality in the long term (Pyszczynski *et al.*, 2021). The failure to manage death-by-emergency-related anxiety potentially threatens individuals' self-preservation. It leaves people without psychological protection from the core human fear (i.e. the fear of death). The importance of managing death-by-emergency-related anxiety explains why individuals are so good at implementing different coping mechanisms. As a measure of concern for one's mortality, a high degree of death-by-emergency-related anxiety affects individuals' attitudes and norms related to societal issues and, indirectly, their behaviours (Furer and Walker, 2008). Accordingly, previous research in psychology has identified a positive connection between

individuals' death-by-emergency-related anxiety and adherence to social norms of behaviour because 'the belief that one is a valuable participant in a meaningful reality helps manage anxiety' (Maxfield *et al.*, 2014, p. 38).

Previous studies support the notion that the negative consequences of misbehaviour could be perceived as more striking when individuals have higher anxiety (Solomon *et al.*, 1991a, b). Consumers may feel more responsible for a social issue if they enact anxiety-management psychological mechanisms. As in previous epidemics, the COVID-19 pandemic is likely to have fostered death-by-emergency-related anxiety in people. Such anxiety may be triggered, for instance, through the death toll updates in the news and reminders of the need for safety measures and extraordinary precautions in ordinary activities, such as shopping. Thus, we posit that the classic NAT model should be expanded in the light of TMT by first including anxiety and, second, understanding positive behavioural intentions in times of emergency. Specifically, we refer to death-by-emergency-related anxiety rather than general anxiety or stress. This difference is relevant because general anxiety and stress are negative and usually lead to negative outcomes (Menon and Dubé, 2004). Instead, from a TMT perspective, death-by-emergency-related anxiety can drive several positive and socially acceptable behaviours (e.g. respect for rules and striving for success) (Maxfield *et al.*, 2014; Pyszczynski *et al.*, 1999). When death-by-emergency-related anxiety is experienced, people cope with the fear of death by trying to exorcise it by behaving correctly, believing in a just world and doing their part to ensure justice is achieved (Solomon *et al.*, 1991a, b). Accordingly:

> *H2) Death-by-emergency-related anxiety moderates the relationship between awareness of the negative social consequences of shopping misbehaviour and ascription of responsibility, such that high anxiety levels increase the ascription of responsibility.*

### *From ascription of responsibility to socially responsible behaviour*

The NAT model posits that a personal norm is activated when individuals feel that their behaviour is responsible for affecting others (Steg and Nordlund, 2018). A personal norm is the feeling of an inner obligation to act according to one's value system. Personal norms are activated by the feeling that one's action is necessary to influence the result and prevent a negative outcome (De Groot and Steg, 2009). Several psychology studies identify personal norms as among the most powerful predictors of individuals' behaviour (Wang and Chou, 2021). Studies in other fields of research that used NAT's theoretical perspective have found a relationship between personal norms and positive behaviour (e.g., Koklic *et al.*, 2019). When individuals feel co-responsible for a problem's solution (or aggravation), they will engage in behaviour that reduces the problem (see Gao *et al.*, 2017 for a review). In other words, individuals develop the intention to play their part when they believe their role can matter. Therefore, the relationship between the ascription of responsibility and behavioural intention could be particularly important during emergencies. Given the above, NAT could be employed beyond the environmental context to understand consumers' shopping misbehaviour during emergencies (e.g. during the COVID-19 pandemic or the Ukraine war):

> *H3) Ascription of responsibility positively affects the intention to enact socially responsible behaviour while shopping.*

### *The role of store attachment*

Raggiotto and Scarpi (2021) defined attachment as an emotional bond between an individual and an object, influencing thoughts, feelings and behaviours. Accordingly, store attachment accounts for shoppers' bonds with a store (Park *et al.*, 2010). Attachment theory addresses individuals' tendencies to establish emotional bonds with objects, suggesting that these bonds

influence how individuals interact with the object of their affection (Bowlby, 1979). Several scholars have investigated the drivers and effects of consumers' attachment to brands (Park *et al.*, 2010), places (Raggiotto and Scarpi, 2020) and also shops (Gorji *et al.*, 2021; Noble *et al.*, 2006).

This study extends attachment theory to examine the relationship between consumers and stores. Store attachment 'refers to the connection between a store and a shopper's self as well as the prominence of store-related thoughts and feelings in the shopper's mind' (Badrinarayanan and Becerra, 2019, p. 372). Recent studies have addressed attachment theory from a NAT perspective, suggesting that individuals' attachment to an object might interact with responsibility ascription and behavioural intentions (Confente and Scarpi, 2021; Rosenthal and Leng, 2020). Specifically, store attachment was examined as a moderator of the relationship between responsibility ascription and behavioural intentions in environmental psychology and tourism. We translate these findings to consumers' attachment to a store and argue that consumers who feel high levels of store attachment will be more likely to avoid damaging the store. In other words, individuals who perceive a problem with an object they feel emotionally attached to are motivated to behave in ways that reduce the problem (Rosenthal and Leng, 2020). Thus, if the attachment object is the store, consumers may behave in a way that benefits the store. This idea is backed by scholars in sociology and tourism, who found that community attachment impacts the willingness to enact community-oriented behaviour, such as civic engagement and behavioural intention (Confente and Scarpi, 2021; Rosenthal and Lee, 2020). By analogy, store attachment should positively impact shoppers' in-store behaviour. More formally:

*H4) Store attachment moderates the relationship between responsibility ascription and consumers' socially responsible behaviour while shopping so that high levels of store*

*attachment increase socially responsible behaviour attributable to the ascription of responsibility.*

Individuals' awareness plays a significant role in many different domains (Marikyan *et al*., 2022b; Kumar *et al*., 2008; Diney and Hart, 2006). However, there are mixed findings regarding the relationship between individuals' awareness and behaviour. For instance, it was found that an individual's level of social awareness directly impacts their privacy concerns, translating into actions (Dinev and Hart, 2006). It was also reported that when individuals are aware of security measures, they tend to adopt them (e.g. the adoption of a software firewall) and develop positive attitudes towards that behaviour (Kumar *et al*., 2008).

However, other evidence suggests that awareness does not impact individuals' intentions to use safer solutions for online shopping (e.g. blockchain-based technology) (Marikyan *et al*., 2022b). Such lack of impact happens even when consumers are aware of the threats' severity (e.g. the likelihood of financial or identity loss while shopping online). Similarly, Confente and Scarpi (2021) found a nonsignificant awareness-behaviour relationship when examining the predictors of sustainable tourism behaviour. The reason for these inconsistent findings would lay in the complexity of the awareness-behaviour path and the existence of the mediating mechanism that may explain the variance in the implications of behaviour awareness. Specifically, according to NAT, awareness turns into action when individuals ascribe responsibility to themselves.

The facilitating role of responsibility aspiration in behaviour was confirmed in further research exploring pro-environmental beliefs and the drivers of tourists' pro-environmental behaviour (Confente and Scarpi, 2021; Gao *et al.*, 2017). Thus, our study hypothesises that even when significant, the awareness–behaviour relationship is smaller than the path mediated through responsibility ascription.

Accordingly:

*H5) The direct relationship between the awareness of the negative consequences of socially irresponsible behaviour and the enactment of socially responsible behaviour while shopping is positive but weaker than the path mediated through responsibility ascription.*

## Method

### *Data collection, measurements and procedures*

We used a sample of 400 British customers ($M_{age}$ = 41; 50% female) from Prolific, a British market research company, which ensured that the sample reflected the country's demographics (Office for National Statistics, Census 2021). Details about the sample can be found in the Appendix (Table A.1). Respondents received a broad invitation to answer an online questionnaire under the condition that they had shopped offline during the last week. Respondents were asked how much they had spent on their last shopping trip, how frequently they shopped at that particular store and their age and gender.

To reduce common method bias, in line with Podsakoff and colleagues (2003), the respondents were informed that they were participating in an independent research study and that data were collected anonymously and would not be sold to anyone.

We measured the awareness of the negative consequences of buyers' irresponsible behaviours using the scale by Lee and Back (2006). For death-by-emergency-related anxiety, we used the scale by Templer (1970) as adapted by Omar *et al.* (2021). We used the scale by Landon *et al.* (2018) for responsibility ascription, Kaplanidou *et al.* (2012) for store attachment and Cheng and Wu (2015) for measuring the intention to enact socially positive shopping behaviour. The items are reported in the Appendix (Table A.3.) and were measured using seven-point Likert scales, ranging from 1 (strongly disagree) to 7 (strongly agree). For example, when it comes to the scale measuring socially positive shopping behaviour, scores

closer to 1 indicate the inclination toward socially irresponsible behaviour during shopping, and those closer to 7 mean that individuals behave pro-socially in a retail context. We also administered Fischer and Fick's (1993) social desirability scale and social norms scale (Bobek *et al.*, 2011) to be entered as covariates.

PROCESS is an ordinary least squares and logistic regression tool for path analysis in SPSS, SAS, and R. PROCESS is widely used in social sciences and retail research for estimating direct and indirect effects in single and multiple mediation models and conditional indirect effects in single and multiple moderated mediation models (Hayes, 2018; Nair, 2017; Roux *et al.*, 2020). Accordingly, we employed PROCESS to estimate our conceptual model of moderated mediation. Thus, we used the mean composite scores for the constructs' items, created bias-corrected 95% confidence intervals (CIs) with heteroscedasticity-consistent standard errors and evaluated the statistical significance of the direct and indirect effects using 5,000 bootstrap samples (Hayes, 2018).

## Results

### *Scale reliability*

A confirmatory factor analysis with AMOS 25 showed adequate fit ($\chi 2/df < 3$; RMSEA = 0.06, GFI = 0.90). Cronbach's alphas for the scale ranged between 0.70 and 0.95; the average variance extracted (AVE) and composite reliability (CR) reached or exceeded the recommended 0.7 and 0.5 thresholds. Specifically, AVE ranges from 0.51 to 0.74 and CR from 0.70 to 0.93 (see Table A.2).

Finally, the discriminant validity test relies on comparing the square root of the AVE and the correlation between the constructs (Fornell and Larcker, 1981). Discrimination validity exists if the square root of the AVE of any construct is larger than the correlation between that construct and any other. In our research, the smallest AVE is 0.51 (see Table A.2), with a square root of 0.71. It is greater than any correlation between any variables, as the highest correlation is 0.35 (see Table A.2). These results confirm the discriminant validity of the constructs. The measurement model thus meets all relevant psychometric properties. The details can be found in the Appendix (Table A.2 and A.3).

***Model estimation***

Firstly, we used Harman's one-factor test to test for common method bias. The results showed a significantly worse fit for the one-factor model ($\chi^2$/d.f = 2.80 vs $\chi^2$/d.f = 16.02, $p < 0.001$), indicating that common method bias was not a concern. As Harman's test is often a weak remedy, following Pantano and Scarpi (2022), we also tested common method bias with the method by Bagozzi, Yi and Phillips (1991). The results provide further evidence that common method bias is unlikely to be a concern in the data: the correlation among principal constructs never exceeded 0.35, well under the 0.9 threshold (Bagozzi et al., 1991).

Following Kock (2015), we ran a collinearity diagnostic in SPSS. All variance inflation factor values were below the threshold of 3, ranging between 1.02 and 1.12. This test also suggests that common method bias is not a concern in this work (Raggiotto and Scarpi, 2021; Kock, 2015). Finally, we entered social desirability as measured with the shortened Fischer and Fick (1993) scale as a covariate in the model. Again, this final test provides converging evidence against social desirability, as the coefficients were not significant (Holbrook and Krosnick, 2010).

A PROCESS model is reliable if the 95% CI for the index of multiple moderated mediation is significant. Significance occurs when the 95% CI limits do not include 0 within them (Hayes, 2018). If this is the case, then the effect is considered significant. Results from the model estimation provide a significant index of multiple moderated mediation (effect =.03, 95% CI [0.01, 0.10]), thereby ensuring the model's robustness (Hayes, 2018).

The moderated mediation analysis shows that awareness of the negative consequences of irresponsible behaviour while shopping led to a higher ascription of responsibility (effect = 0.40, $p < 0.001$), supporting H1. Furthermore, as posited in H2, death-by-emergency-related anxiety significantly moderated the effect of awareness of negative consequences on responsibility ascription (effect = 0.05, $p = 0.04$). This finding suggests that awareness is strengthened when consumers perceive higher levels of death-by-emergency related anxiety. As in H2, individuals with high death-by-emergency-related anxiety coped with such anxiety through a higher responsibility ascription for their in-store behaviour. In line with H3, responsibility ascription led to positive consumers' behavioural intentions (effect = 0.41, $p < 0.001$). In turn, as predicted in H4, store attachment positively affected individuals' intentions to behave in a socially responsible way (effect = 0.06, $p = 0.04$): this intention was higher for individuals with higher store attachment (effects at the values of the moderator ($Store_attachment_{low} = 0.28$, $p < 0.001$; $Store_attachment_{high} = 0.13$, $p = 0.04$). Finally, a significant direct effect between awareness of negative consequences and behavioural intention is confirmed (effect = 0.12, $p = 0.01$), though smaller than the path mediated through responsibility ascription, in line with H5.

In summary, this evidence supports responsibility ascription as a mediator of the relationship between awareness and behavioural intention. Overall, the highest behavioural intentions were observed for consumers who were aware of the negative consequences of socially irresponsible behaviours while shopping and felt more death-by-emergency-related

anxiety, ascribing responsibility to themselves. The results suggest that individuals with a higher ascription of responsibility developed a stronger intention to behave positively, especially when they felt an emotional bond with the store. Conversely, low intention to behave in a socially responsible way emerged for individuals who did not ascribe responsibility to themselves, especially if they felt little death-by-emergency-related anxiety and little attachment to the store. The results are illustrated in Figure 1 and summarised in Table 1.

**Figure 1.** The model with estimates

**[FIGURE 1 above here]**

Note: The continuous line indicates constructs from NAT, the dotted line from TMT, and the dotted fill from attachment theory; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

**Table 1.** Results from the moderated mediation analysis.

**[TABLE 1 above here]**

*LLCI = lower limit confidence interval; ULCI = upper limit confidence interval*

## Discussion

This paper has proposed a theoretical framework centred on anxiety, a sense of responsibility and awareness. Prior studies focused on the negative consequences of scarcity perception on consumer behaviour (Cannon *et al.*, 2019; Hamilton *et al.*, 2019; Kristofferson *et al.*, 2017; Pizzi and Scarpi, 2013). However, our results showed that consumers' awareness of the negative social consequences of socially irresponsible behaviour while shopping positively impacts their ascription of responsibility (H1). This finding builds on previous studies, postulating that individuals who are more perceptive about an issue feel more responsible for

the social consequences of that issue (Gao *et al.*, 2017). Accordingly, correct behaviours are enacted when individuals are aware of the consequences of wrong behaviour (Steg and De Groot, 2010; De Groot and Steg, 2009).

In addition, our results demonstrate that death-by-emergency-related anxiety can be a positive moderator of the relationship between perceived awareness of the consequences of socially irresponsible behaviour while shopping and ascription of responsibility (H2). This is because emergencies such as the COVID-19 pandemic or the Ukraine war enhance consumers' death-by-emergency-related anxiety. Thus, the more death-by-emergency-related anxiety consumers feel, the more they will cope with this anxiety through an increased sense of responsibility in regard to their shopping behaviour.

It is worth remembering that anxiety, in TMT terms, has not the negative connotation of general anxiety and stress but refers to a healthy psychological mechanism through which people maintain faith in their cultural worldviews, self-esteem and personal relationships (Pyszczynski *et al.*, 1999).

The findings also revealed that the ascription of responsibility leads to socially responsible behaviour while shopping (H3), thus expanding on previous works (Koklic *et al.*, 2019; Steg and Norlund, 2018) with new evidence about consumer behaviour during emergencies. Our results also support that panic buying, excessive stockpiling and norm refusals can be limited by increasing consumers' awareness and ascription of responsibility. Prior research anticipated some drivers of panic buying (Omar *et al.*, 2021). Our study adds new knowledge on the meaningful role of norms and constraining factors in diminishing the possibility of irresponsible consumer behaviours while shopping.

In addition, we adapted the concept of place attachment largely adopted in tourism (Zhang *et al.*, 2014; Kaplanidou *et al.*, 2012), introducing the construct of store attachment, which we defined as the emotional bond between the consumer and the store. In this way, we

shed new light on the role of local stores as communities and demonstrate that the emotional attachment to the local store further strengthens the relationship between the ascription of responsibility and consumers' socially responsible behaviour (H4).

Finally, we confirmed a direct relationship between awareness of negative consequences and behavioural intention (H5). This finding corroborates with new evidence from prior studies using NAT, which investigated the relationship between awareness and behavioural intention (Confente and Scarpi, 2021). Also, it corroborates past research on the correlation between awareness of privacy intrusion and intention to adopt antispyware software (Kumar *et al*., 2008) with new evidence from the context of a health emergency. Our results indicate that when individuals are aware that their actions (e.g. socially irresponsible behaviour such as unnecessary stockpiling and verbal abuse while shopping) could have damaging consequences, they might adopt socially responsible behaviour.

**Theoretical contributions and managerial implications**

The findings of the study have theoretical implications. They help address calls to investigate consumers' socially irresponsible behaviours while shopping. Furthermore, they answer recent calls to enrich NAT (Rosenthal and Leng, 2020). On the one hand, our findings examine new applications of NAT in a retail-specific context, a theory which has previously mainly been applied in tourism (O'Connor and Assaker, 2021). On the other hand, our findings expand on NAT by considering the psychological factors that may regulate socially irresponsible behaviour. The research further highlights the significant role of anxiety and attachment in facilitating the impact of awareness of negative consequences and aspirations of responsibility in the retail context, which has not been previously examined. By making the above contributions, the findings show ways to mitigate socially irresponsible behaviours while shopping, starting from the ascription of responsibility rather than punishments and

prohibitions and addressing store attachment rather than the circumvention of the rules of correct behaviour. Overall, the results emphasise how important it is to instil in consumers a responsibility for their actions and to create an emotional bond between them and the store. The present research ultimately contributes to the debate on consumers' irresponsible behaviour (Gupta and Mukherjee, 2022b; Jin *et al.*, 2022; Echeverri *et al.*, 2012;) and how to support managers in limiting irresponsible behaviour while shopping during social or health emergencies.

Our findings provide implications for managers and policymakers. Irresponsible consumer behaviour might induce product scarcity during emergency events. Emergencies are out of the control of management and might happen more frequently than in the past (i.e. in February 2022, the war in Ukraine followed the COVID-19 pandemic, while a massive storm hit the USA in December 2022). Managers and policymakers can take action to prevent consumers from acts of selfish and irresponsible shopping. Indeed, our results demonstrate that emergency-related anxiety and store attachment mediate the effects of awareness of negative consequences on the ascription of responsibility and socially responsible behaviour, respectively. Thus, practitioners and policymakers should emphasise the negative consequences of irresponsible behaviour that an individual's behaviour has on others. In other words, generic messages like *'stay at home to save lives'* that call upon reciprocal altruism do not prevent socially irresponsible behaviours. Instead, our results suggest delivering specific messages that foster consumer awareness of the risks and negative consequences of irresponsible behaviour for the wider population and how responsible behaviours generate benefits for the (closer) community. In other words, practitioners and policymakers should emphasise the benefits of socially responsible behaviours for people's neighbours, encouraging a sense of responsibility rather than fear that would increase general anxiety. Thus, consumers

should be exposed to messages about the importance of each individual's behaviour as an act of social courage benefiting one's neighbours.

Furthermore, retailers and policymakers should increase consumers' awareness of how much each individual can contribute to the local community with small gestures (such as avoiding overconsumption or stockpiling). For example, emphasising how buying only what one can eat allows the neighbours to buy the same. This way, socially responsible behaviours would appear rewarding for neighbours and others who are close to the individual. At the same time, socially irresponsible behaviours would be damaging locally, impeding the ability of others in the local community to access food or necessary goods. Accordingly, practitioners should support the development of a strong sense of community towards the store by emphasising the extent to which the store is not only a place for buying but also an integral part of the community, with social, financial and economic benefits for the whole neighbourhood and society in general. Specifically, managers and policymakers should clearly show the extent to which the appreciation of the local store (and the related store attachment) would result in an appreciation of the local community. Thus, the local store is not an external entity, and any damaging behaviour towards the store (and store employees) is an act against the community.

Consequently, actions carried out for/against the local store might positively/negatively impact the individual. Accordingly, we further suggest adapting the generic messages to a more local level to make consumers aware of the weight of their irresponsible behaviour during an emergency. In other words, a national retail chain should adapt the words on its billboards for each local area rather than using the same words for the entire country.

## Limitations and future research

This research has focused only on British consumers, although several countries have witnessed consumers' socially irresponsible behaviours during shopping. Thus, future research

could extend data gathering to other countries to better generalise the results. Another limitation is the adoption of a cross-sectional research design. Hence, future research needs to use a longitudinal approach to establish a temporal link between the independent and dependent variables. Also, future research might consider a psychological perspective, for instance, addressing how constructs grounded in consumer psychology might affect the set of relationships addressed in this research. In particular, new studies could address individuals' beliefs in a fair world, moral licensing and self-focus. Such an approach might help explain why some individuals have higher death-by-emergency-related anxiety or tend to ascribe responsibilities to themselves more often than others.

Similarly, adopting a preventative focus affects how individuals mentally represent their shopping experience, what they buy and how they shop (Scarpi, 2021). Thus, future research could investigate how different types of emergencies affect the adoption of a preventative focus and how it shapes consumers' shopping. Future studies might also focus on the moderating effect of perceived psychological distance to the emergency on socially irresponsible behaviours. Also, the role of psychological distance could be further investigated with in-depth interviews to explain the extent to which different emergencies trigger different mental representations of the event and, therefore, lead to different reactions (Cai and Leung, 2020).

Finally, the usage of new metrics, such as the ones from social media analytics (e.g. analysis of tweets/posts on social media such as Twitter and Facebook), would increase our understanding of the effect of specific emergencies on patterns of consumers' intentions and behaviours. In this vein, future research could also address the emotional contagion (Hatfield *et al.*, 1992) caused by emergencies, analysing to what extent consumers who witness the emotions and socially irresponsible behaviours of other consumers copy those emotions and behaviours.

## References


Amasiatu, C.V. and Shah, M.H. (2018), "First party fraud management: framework for the retail industry", *International Journal of Retail & Distribution Management*. Vol. 46(4), pp. 350-363

Badrinarayanan, V., and Becerra, E.P. (2019), "Shoppers' attachment with retail stores: Antecedents and impact on patronage intentions", *Journal of Retailing and Consumer Services*, Vol. 50, pp.371-378.

Bagozzi, R. P., Yi, Y., and Phillips, L. W. (1991), "Assessing construct validity in organisational research", *Administrative Science Quarterly*, Vol. 36, No. 3, pp.421-458.

Bhasin, T., Butcher, C., Gordon, E., Hallward, M., and LeFebvre, R. (2020), "Does Karen wear a mask? The gendering of COVID-19 masking rhetoric", *International Journal of Sociology and Social Policy*, Vol. 40 No. 9/10, pp.929-937.

Bobek, D.D., Hageman, A.M., and Kelliher, C.F. (2011), "The Social Norms of Tax Compliance: Scale Development, Social Desirability, and Presentation Effects", Arnold, V., Bobek, D., Clinton, B.D., Lillis, A., Roberts, R., Wolfe, C. and Wright, S. (Ed.), *Advances in Accounting Behavioral Research* Vol. 14, Emerald Group Publishing Limited, Bingley, pp. 37-66.

Bowlby, J. (1979), "On knowing what you are not supposed to know and feeling what you are not supposed to feel", *The Canadian Journal of Psychiatry*, Vol. 24 No. 5, pp.403-408.

Cai, R., and Leung, X. Y. (2020), "Mindset matters in purchasing online food deliveries during the pandemic: The application of construal level and regulatory focus theories", *International Journal of Hospitality Management*, Vol. 91, 102677.

Cannon, C., Goldsmith, K., and Roux, C. (2019), "A self-regulatory model of resource scarcity", *Journal of Consumer Psychology*, Vol. 29 No. 1, pp.104-127.

Chaouali, W., Hammami, S.M., Veríssimo, J.M.C., Harris, L.C., El-Manstrly, D., and Woodside, A.G. (2022), "Customers who misbehave: Identifying restaurant guests. acting out via asymmetric case models", *Journal of Retailing and Consumer Services*, Vol. 66, art. 102897.

Chen, T., Jin, Y., Yang, J., and Cong, G. (2022), "Identifying emergence process of group panic buying behavior under the COVID-19 pandemic", *Journal of Retailing and Consumer Services*, Vol. 67, art. 102970.

Chen, Y., Dai, R., Yao, J., and Li, Y. (2019), "Donate time or money? The determinants of donation intention in online crowdfunding", *Sustainability*, Vol. 11 No. 16, art. 4269.

Cheng, T.M., and Wu, H.C. (2015), "How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behavior? An integrated approach for sustainable island tourism", *Journal of Sustainable Tourism*, Vol. 23 No. 4, pp.557–576.

Confente, I., and Scarpi, D. (2021), "Achieving Environmentally Responsible Behavior for Tourists and Residents: A Norm Activation Theory Perspective," *Journal of Travel Research*, Vol. 60 No. 6, pp.1196-1212.

Daunt, KL., and Greer, DA. (2015), "Unpacking the perceived opportunity to misbehave: The influence of Spatio-temporal and Social dimensions on consumer misbehavior", *European Journal of Marketing*, Vol. 49 No. 9/10, pp.1505-1526.

De Groot, J.I., and Steg, L. (2009), "Morality and prosocial behavior: The role of awareness, responsibility, and norms in the norm activation model", *The Journal of Social Psychology*, Vol. 149 Vol. 4, pp.425-449.

Dinev, T. and Hart, P. (2006), "Internet privacy concerns and social awareness as determinants of intention to transact", *International Journal of Electronic Commerce*, Vol. 10 No. 2, pp.7-29.

Echeverri, P., Salomonson, N., and Aberg, A. (2012), "Dealing with customer misbehavior: employees' tactics, practical judgement and implicit knowledge", *Marketing Theory,* Vol. 12 No. 4, pp.427-449.

Evans, K.R., Christiansen, T., and Gill, J.D. (1996), "The impact of social influence and role expectations on shopping center patronage intentions", *Journal of the Academy of Marketing Science,* Vol. 24 No. 3, pp.208-218.

Fischer, D.G., and Fick, C. (1993), "Measuring social desirability: Short forms of the Marlowe-Crowne social desirability scale", *Educational and Psychological Measurement,* Vol. 53 No. 2, pp.417-424.

Flammer, C. (2013), "Corporate social responsibility and shareholder reaction: The environmental awareness of investors", *Academy of Management Journal,* Vol. 56 No. 3, pp.758-781.

Fornell, C., & Larcker, D. F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", Journal of Marketing Research, Vol.18, No.1, pp.39-50.

Fullerton, R.A., and Punj, G. (2004), "Repercussions of promoting an ideology of consumption: consumer misbehavior", *Journal of Business Research,* Vol. 57 No. 11, pp.1239-1249.

Furer, P., and Walker, J.R. (2008), "Death anxiety: A cognitive-behavioral approach", *Journal of Cognitive Psychotherapy,* Vol. 22 No.2, 167-182.

Gao, J., Huang, Z., and Zhang, C. (2017), "Tourists' perceptions of responsibility: an application of norm-activation theory", *Journal of Sustainable Tourism,* Vol. 25 No. 2, pp. 276-291.

Gorji, M., Grimmer, L., Grimmer, M. and Siami, S. (2021), "Retail store environment, store attachment and customer citizenship behaviour", *International Journal of Retail & Distribution Management,* Vol. 49 No. 9, pp.1330-1347.

Greenberg, J., Porteus, J., Simon, L., Pyszczynski, T., and Solomon, S. (1995), “Evidence of a terror management function of cultural icons: The effects of mortality salience on the inappropriate use of cherished cultural symbols”, *Personality and Social Psychology Bulletin*, Vol. 21 No. 11, pp.1221-1228.

Gundogan, S., and Arpaci, I. (2022), “Depression as a mediator between fear of COVID-19 and death anxiety”, *Current Psychology*, ahead of print, DOI: https://doi.org/10.1007/s12144-022-03120-z

Gupta, A.S. and Mukherjee, J. (2022a), “Long-term changes in consumers' shopping behavior post-pandemic: an exploratory study”, *International Journal of Retail & Distribution Management*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJRDM-04-2022-0111.

Gupta, A.S. and Mukherjee, J. (2022b), “Decoding revenge buying in retail: role of psychological reactance and perceived stress”, *International Journal of Retail & Distribution Management*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJRDM-01-2022-0022.

Guthrie, C., Fosso-Wamba, S., and Arnaud, J.B. (2021), “Online consumer resilience during a pandemic: An exploratory study of e-commerce before, during and after a COVID-19 lockdown”, *Journal of Retailing and Consumer Services*, Vol. 61, art.102570.

Hamilton, R., Thompson, D., Bone, S., Chaplun, L.N., Griskevicious, V., Goldsmith, K., Hill, R., John D.R., Mittal, C., O’Guinn, T., Piff, P., Roux, C., Shah, A., and Zhu, M. (2019), “The effects of scarcity on consumer decision journeys”, *Journal of the Academy of Marketing Science*, Vol. 47, pp.532-550.

Hatfield, E., Cacioppo, J. T., and Rapson, R. L. (1992). "Emotional contagion." Current directions in psychological science 2, No. 3, pp. 96-100.

Hayes, A.F. (2018), *Introduction to mediation, moderation, and conditional process analysis second edition: A regression-based approach*, New York: The Guilford Press.

Holbrook, A. L., and Krosnick, J. A. (2010), "Social desirability bias in voter turnout reports: Tests using the item count technique", *Public Opinion Quarterly*, Vol. 74 No. 1, pp.37-67.

Jacobsen, S.L., and Barnes, N.G. (2020), "Social Media, Gen Z and Consumer Misbehavior: Instagram Made Me Do It", *Journal of Marketing Development and Competitiveness*, Vol. 14 No. 3, pp.51-58.

Jin, X.L., Zhou, Z., and Tian, Y. (2022), "A configurational analysis of the causes of consumer indirect misbehaviors in access-based consumption", *Journal of Business Ethics*, Vol. 175, pp.135-166.

Kaplanidou, K., Jordan, J.S., Funk, D., and Ridinger, L.L. (2012), "Recurring sport events and destination image perceptions: Impact on active sport tourist behavioral intentions and place attachment", *Journal of Sport Management*, Vol. 26 No. 3, pp.237-248.

Kock, N. (2015), "Common method bias in PLS-SEM: A full collinearity assessment approach", *International Journal of e-Collaboration*, Vol. 11 No. 4, pp.1-10.

Koklic, M. K., Golob, U., Podnar, K., and Zabkar, V. (2019), "The interplay of past consumption, attitudes and personal norms in organic food buying", *Appetite*, Vol. 137, pp.27-34.

Kristofferson, K., McFerran, B., Morales, A.C., and Dahl, D.W. (2017), "The dark side of scarcity promotions: how exposure to limited-quantity promotions can induce aggression", *Journal of Consumer Research*, Vol. 43 No. 5, pp.683-706.

Kumar, N., Mohan, K., and Holowczak, R., (2008), "Locking the door but leaving the computer vulnerable: Factors inhibiting home users' adoption of software firewalls", *Decision Support Systems*, Vol. *46*, No. 1, pp.254-264.

Landon, A.C., Woosnam, K.M., and Boley, B.B. (2018), "Modeling the psychological antecedents to tourists' pro-sustainable behaviors: An application of the value-belief-norm model", *Journal of Sustainable Tourism*, Vol. 26 No. 6, pp.957-972.

Lee, C.K., and Back, K.J. (2006), "Examining structural relationships among perceived impact, benefit, and support for casino development based on 4 year longitudinal data", *Tourism Management*, Vol. 27 No. 3, pp.466-480.

Lennon, S.J., Lee, J., Kim, M., and Johnson, K.K. (2014), "Antecedents of consumer misbehavior on Black Friday: A social responsibility view", *Fashion, Style and Popular Culture*, Vol. 1 No. 2, pp.193-212.

Magdin, R. (2022), "How much the war in Ukraine affects Romanians and how much of it is fake news: the panic over product prices", *Polis. Journal of Political Science*, Vol. 10 No. 2, pp.111-122.

Marikyan, D., Papagiannidis, S., Rana, O.F., Ranjan, R., and Morgan, G. (2022a), "Alexa, let's talk about my productivity: The impact of digital assistants on work productivity", *Journal of Business Research*, Vol. 142, pp.572-584.

Marikyan, D., Papagiannidis, S., Rana, O.F., and Ranjan, R., (2022b), "Blockchain adoption: A study of cognitive factors underpinning decision making", *Computers in Human Behavior*, Vol. 131, art. 107207.

Maxfield, M., John, S., and Pyszczynski, T. (2014), "A terror management perspective on the role of death-related anxiety in psychological dysfunction", *The Humanistic Psychologist*, Vol. 42 No.1, pp.35-53.

Mende, M., Bolton, R.N., and Bitner, M.J. (2013), "Decoding customer–firm relationships: how attachment styles help explain customers' preferences for closeness, repurchase intentions, and changes in relationship breadth", *Journal of Marketing Research*, Vol. 50 No. 1, pp.125-142.

Menon, K., and Dube, L. (2004), "Service provider responses to anxious and angry customers: different challenges, different payoffs", *Journal of Retailing*, Vol. 80 No. 3, pp.229-237.

Naeem, M. (2020), "Understanding the customer psychology of impulse buying during COVID-19 pandemic: implications for retailers", *International Journal of Retail & Distribution Management*, 49 (3), pp. 377-393.

Nair, S. R. (2017), "Analysing the relationship between store attributes, satisfaction, patronage-intention and lifestyle in food and grocery store choice behavior", *International Journal of Retail & Distribution Management*, Vol. 46 No.1, pp.70-89.

Noble, S.M., Griffith, D.A., and Adjei, M.T. (2006), "Drivers of local merchant loyalty: Understanding the influence of gender and shopping motives", *Journal of Retailing*, Vol. 82 No. 3, pp.177-188.

Omar, N.A., Nazri, M.A., Ali, M.H., and Alam, S.S. (2021), "The panic buying behavior of consumers during the COVID-19 pandemic: Examining the influences of uncertainty, perceptions of severity, perceptions of scarcity, and anxiety", *Journal of Retailing and Consumer Services*, Vol. 62, art.102600.

O'Connor, P., and Assaker, G. (2021), "COVID-19's effects on future pro-environmental traveler behavior: An empirical examination using norm activation, economic sacrifices, and risk perception theories", *Journal of Sustainable Tourism*, Vol. 30 No. 1, pp.89-107.

Onwezen, M. C., Antonides, G., and Bartels, J. (2013), "The Norm Activation Model: An exploration of the functions of anticipated pride and guilt in pro-environmental behaviour", *Journal of Economic Psychology*, Vol. 39, pp.141-153.

Palmatier, R.W., Dant, R.P., Grewal, D., and Evans, K.R. (2006), "Factors influencing the effectiveness of relationship marketing: A meta-analysis", *Journal of Marketing*, Vol. 70 No. 4, 136-153.

Pantano, E., and Scarpi, D. (2022). “I, Robot, You, Consumer: Measuring Artificial Intelligence Types and their Effect on Consumers Emotions in Service”, *Journal of Service Research*, 10946705221103538.

Pantano, E., and Stylos, N. (2020), “The Cinderella moment: exploring consumers’ motivations to engage with renting as collaborative luxury consumption mode”, *Psychology and Marketing*, Vol. 37 No. 5, pp.740-753.

Pantano, E., Pizzi, G., Bilotta, E., and Pantano, P. (2021), “Shopping with(out) distancing: modelling the personal space to limit the spread of contagious disease among consumers in retail stores”, *Journal of Marketing Management*, Vol. 37 No. 17-18, pp. 1764-1782.

Pantano, E., Pizzi, G., Scarpi, D., and Dennis, C. (2020), “Competing during a pandemic? Retailers’ ups and downs during the COVID-19 outbreak”, *Journal of Business Research*, Vol. 116, pp.209-213.

Park, C. W., MacInnis, D.J., Priester, J., Eisingerich, A.B., and Iacobucci, D. (2010), “Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers”, *Journal of Marketing*, Vol. 74 No. 6, pp.1-17.

Park, I., Lee, J., Lee, D., Lee, C., and Chung, W.Y. (2022), “Changes in consumption patterns during the COVID-19 pandemic: Analysing the revenge spending motivations of different emotional groups”, *Journal of Retailing and Consumer Services*, Vol. 65, art. 102874.

Pinar, D., Pinar, A., and Itir, Y. (2022), “Meaning in life, psychological hardiness and death anxiety: individuals with or without generalised anxiety disorder (GAD)”, *Current Psychology*, Vol. 41 No. 6, pp.3299-3317.

Pyszczynski, T., Greenberg, J., and Solomon, S. (1999), “A dual-process model of defense against conscious and unconscious death-related thoughts: an extension of terror management theory”, *Psychological Review*, Vol. 106 No. 4, p.835.

Pyszczynski, T., Lockett, M., Greenberg, J., and Solomon, S. (2021), "Covid19? Terror Management Theory and the COVID-19 Pandemic", *Journal of Humanistic Psychology*, Vol. 61 No.2, pp.173-189.

Raggiotto, F., and Scarpi, D. (2021), "This must be the place: A destination-loyalty model for extreme sporting events", *Tourism Management*, Vol. 83, art.104254.

Rosenthal, S., and Leng, H.K. (2020), "Minding other people's business: Community attachment and anticipated negative emotion in an extended norm activation model", *Journal of Environmental Psychology*, Vol. 69, art.101439.

Roux, T., Mahlangu, S. and Manetje, T. (2020), "Digital signage as an opportunity to enhance the mall environment: a moderated mediation model", *International Journal of Retail & Distribution Management*, Vol. 48 No. 10, pp. 1099-1119.

Sakwa, R. (2022), *The Russia Scare: Fake News and Genuine Threat*. Taylor & Francis.

Scarpi, D. (2021), "A construal-level approach to hedonic and utilitarian shopping orientation", Marketing Letters, Vol. 32 No. 2, pp.261-271.

Scarpi, D., Russo, I., Confente, I., and Hazen, B. (2020), "Individual antecedents to consumer intention to switch to food waste bioplastic products: A configuration analysis", *Industrial Marketing Management*, Vol. 93, pp.578-590

Schaefers, T., Wittkowski, K., Benoit, S., and Ferraro, R. (2016), "Contagious effects of customer misbehavior in access-based services", *Journal of Service Research*, Vol. 19 No. 1, pp.3-21.

Schreiner, T., and Baier, D. (2021), "Online retailing during the COVID-19 pandemic: consumer preferences for marketing actions with consumer self-benefits versus other-benefit components", *Journal of Marketing Management*, Vol. 37 No. 17-18, pp.1866-1902.

Schwartz, S.H. (1977), “Normative influences on altruism”, *Advances in Experimental Social Psychology*, Vol. 10, pp.221-279.

Solomon, S., Greenberg, J., and Pyszczynski, T. (1991a), “Terror management theory of self-esteem”, *Handbook of social and clinical psychology: The health perspective*, Vol. 162, pp.21-40.

Solomon, S., Greenberg, J., and Pyszczynski, T. (1991b), “A terror management theory of social behavior: The psychological functions of self-esteem and cultural worldviews”, *Advances in Experimental Social Psychology*, Vol. 24, pp.93-159.

Steg, L., and De Groot, J. (2010), “Explaining prosocial intentions: Testing causal relationships in the norm activation model”, *British Journal of Social Psychology*, Vol 49 No.4, pp.725-743.

Steg, L., and Nordlund, A. (2018), “Theories to Explain Environmental Behavior”, *Environmental Psychology*, pp.217-227.

Templer, D.I. (1970), “The construction and validation of a death anxiety scale”, *Journal of General Psychology*, Vol. 82 No. 2, pp.165-177.

Wan, L.C., Hui, M.K., and Qiu, Y.C. (2021), “Tourist misbehavior. Psychological closeness to fellow consumers and informal social control”, *Tourism Management*, Vol. 83, art.104258.

Wang, E.S.T. and Chou, C.F., 2020. Norms, consumer social responsibility and fair trade product purchase intention. *International Journal of Retail & Distribution Management*. Vol. 49(1), pp. 23-39

Yazdanmehr, A., and Wang, J. (2016), “Employees’ information security policy compliance: A norm activation perspective”, *Decision Support Systems*, Vol. 92, pp.36-46.

Zhang, Y., Zhang, H.L., Zhang, J., and Cheng, S. (2014), “Predicting residents’ pro-environmental behaviors at tourist sites: The role of awareness of disaster’s

consequences, values, and place attachment", *Journal of Environmental Psychology*, Vol. 40, pp.131–146.

Zlatevska, N., and Spence, M.T. (2016), "Parsing out the effects of personal consumption norms and industry influences on food consumption volume", *European Journal of Marketing*, Vol. 50, pp.377-396.