Journal of Economics, Finance and Management Studies

ISSN (print): 2644-0490, ISSN (online): 2644-0504

Volume 09 Issue 10 October 2026

Article DOI: 10.47191/jefms/v9-i10-38, Impact Factor: 8.735

Page No: 5625-5638

From Psychological Distress to Impulse Buying Behavior: Examining Retail Therapy as a Coping Mechanism in E-Commerce

Vo Minh Vinh [1], Vu Hoang Ngoc Linh[2], Nguyen Thi Thanh Ngoc[3]

[1]Faculty of Management and Economics, Tomas Bata university, Czech Republic. Orchid https://orcid.org/0009-0007-4100-770X

[2]Saigon South International School, Ho Chi Minh, Vietnam

[3]Nguyen Thi Minh Khai highschool, Ho Chi Minh, Vietnam

ABSTRACT: This study investigates the interconnections between loneliness, anxiety, retail therapy coping tendency, emotional regulation capability, and impulse buying behavior in e-commerce settings while assessing retail therapy as a coping route that links psychological distress to unplanned purchases. Drawing on the Transactional Theory of Stress and Coping together with the Process Model of Emotion Regulation, the work positions impulse buying as a behavioral result influenced by psychological distress, shopping oriented coping, and consumers capacity to handle emotional reactions. A quantitative cross-sectional approach gathered responses via a five-point Likert scale questionnaire from 385 adult consumers who had engaged with e-commerce platforms and finalized at least one online purchase within the prior six months. IBM SPSS facilitated reliability checks, exploratory factor analysis, descriptive statistics, and multiple linear regression. Results indicate that loneliness (β = 0.519) and anxiety (β = 0.628) both elevate retail therapy coping tendency, with anxiety exerting the greater impact. Retail therapy coping tendency in turn produces a notable positive effect on impulse buying behavior (β = 0.584), showing that individuals who turn to shopping for emotional relief become more prone to spontaneous acquisitions. By contrast, emotional regulation capability markedly lowers impulse buying behavior (β = −0.605) and registers the largest absolute direct influence. These outcomes demonstrate that online impulse buying stems not merely from platform ease or promotional cues but also from the ways consumers encounter psychological distress and choose methods to manage it. Responsible e-commerce approaches should therefore integrate reflective purchasing tools with consumer education that builds emotional awareness and adaptive regulation skills.

KEYWORDS: impulse buying behavior; retail therapy coping tendency; loneliness; anxiety; emotional regulation capability; e-commerce.

1. INTRODUCTION

Impulse buying behavior on e-commerce platforms poses a serious concern, since digital retail settings let consumers convert fleeting emotional impulses into instant purchases with little deliberation. Features such as tailored recommendations, constant availability, time-limited offers, and effortless payment options often erode careful judgment and amplify reactions to underlying psychological strain. Although impulsive buys can yield brief pleasure and short-lived ease from loneliness or anxiety, this relief may mask a harmful cycle: distress prompts retail therapy, the purchase lifts mood temporarily, and later regret or money worries renew the distress. The pattern becomes especially troubling when shoppers consistently favor emotional comfort over cost, need, and lasting welfare. Outcomes can encompass excess spending, debt, guilt, anxiety, weakened self-control, and a possible slide into compulsive buying (Darrat et al., 2016; Iyer et al., 2020). Social isolation may also raise stress and hedonic browsing, increasing susceptibility to online impulse purchases (Jabutay & Limpachote, 2024). Studying the issue is, therefore, pressing, as stronger emotional regulation can shield people from turning distress into buying urges, while a retail-therapy coping style may channel loneliness and anxiety into impulsive acts. Clarifying these pathways can promote consumer well-being, more responsible platform design, and focused financial as well as psychological support.

Earlier work framed impulse buying as arising from both inner psychological states and external marketing cues, with mood and self-control serving as key explanatory routes (Iyer et al., 2020). Studies on retail therapy have likewise shown that the act of choosing what to buy can ease sadness by rebuilding a sense of personal control (Rick et al., 2014). More recent online-shopping research indicates that e-commerce experiences promote impulsive purchases, while self-control limits that tendency (Zhao et al.,

2022). In parallel, social isolation raises stress and pleasure-seeking browsing that then fuel e-impulse buying (Jabutay & Limpachote, 2024), and mindfulness together with emotional intelligence appear to curb problematic online spending (Vihari et al., 2022). Yet these investigations typically isolate platform cues, distress, or self-regulation rather than examining them together. They also often view mood repair as a purely positive shopping benefit without clarifying when it shifts into a pathway toward impulse buying. As a result, the combined sequence by which loneliness and anxiety foster a retail-therapy coping style, and how that style then drives impulse purchases, has received limited attention. The separate, direct role of emotional-regulation ability likewise remains poorly specified. The present study therefore aims to close these gaps by testing an integrated model in which loneliness and anxiety predict retail-therapy coping, that coping mediates their impact on e-commerce impulse buying, and emotional-regulation capability exerts its own direct effect on the behavior. Such a framework keeps emotional distress, coping responses, and behavioral outcomes conceptually distinct instead of collapsing them into one another.

This study seeks to answer the following research questions: (1) To what extent does retail therapy coping tendency influence impulse buying behavior on e-commerce platforms? (2) How does emotional regulation capability affect impulse buying behavior? (3) How does loneliness influence retail therapy coping tendency? (4) How does anxiety influence retail therapy coping tendency? In line with these aims, the work examines the direct influences of retail-therapy coping and emotional regulation on online impulse buying, evaluates how loneliness and anxiety drive the coping tendency, and tests its role in channeling psychological distress into spontaneous purchases. From a scholarly standpoint, the research brings together perspectives on emotional distress, coping, self-regulation, and digital consumption into a single model that clarifies how loneliness and anxiety convert into behavioral results through shopping-based relief. Practically, the findings can assist e-commerce platforms, consumer-protection bodies, financial educators, and mental-health practitioners in recognizing vulnerable consumers and designing responsible measures. Such insights may inform emotional-awareness cues, spending limits, cooling-off intervals, and financial-literacy efforts that curb harmful buying while still acknowledging the short-term emotional comfort online shopping can offer.

2. LITERATURE REVIEW

2.1. Impulse Buying Behavior

Impulse buying behavior denotes a consumer's visible pattern of making swift, unplanned purchases with little assessment of whether the item is needed, affordable, or advisable in the longer run (Redine et al., 2023). In online retail settings the pattern appears when shoppers convert abrupt buying impulses into finished transactions, guided by emotional conditions and digital marketplace cues. Conceptually, the construct matters because it captures the end result of interplay among affective drive, cognitive restraint, individual susceptibility, and platform architecture (Iyer et al., 2020). It differs from a mere buying urge, which need not end in a purchase, and from compulsive buying, which is chronic, repeated, and possibly disordered (Darrat et al., 2016). Commercially the behavior can raise sales volume, speed product discovery, and deliver instant pleasure or short-lived emotional ease. Yet recurrent episodes risk regret, superfluous spending, money worries, and lower well-being. Digital platforms intensify the tendency through round-the-clock access, tailored suggestions, eye-catching displays, social pressure, scarcity cues, and seamless checkout that compress reflection before the order is placed (Chan et al., 2017; Zhao et al., 2022). Impulse buying should, therefore, be judged by the actual transactions, their suddenness, scant deliberation, emotional drivers, and limited regard for later costs rather than by self-reported urges alone.

2.2. Critical Analysis of Theoretical Frameworks

To explain how psychological distress develops into impulse buying behavior on e-commerce platforms, this study integrates the Transactional Theory of Stress and Coping with the Process Model of Emotion Regulation. The Transactional Theory identifies loneliness and anxiety as psychologically stressful conditions that stimulate retail therapy coping tendency, thereby explaining its mediating role. The Process Model of Emotion Regulation explains how emotional regulation capability determines whether consumers manage distress through adaptive emotional strategies or translate their emotional states into immediate, unplanned purchasing behavior.

2.2.1. The Transactional Theory of Stress and Coping

The Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984) frames psychological stress as an ongoing transaction between person and environment rather than a simple reaction to external hardship. Stress emerges when people appraise demands as threatening or beyond their coping resources, involving primary appraisal of threat to well-being and secondary appraisal of available options; when demands outweigh resources, distress arises and coping is mobilized to manage the situation or its emotions. Empirical work continues to affirm that perceived stress reflects this interplay of demands, appraisal, and resources rather than stressors alone (Obbarius et al., 2021; Spătaru et al., 2024). This theoretical lens explains how loneliness, which reflects

the gap between desired and actual social relationships, and anxiety, characterized by apprehension and heightened sensitivity to threats, can increase individuals' tendency to use retail therapy as a coping mechanism. When these states seem hard to alter directly, individuals often turn to emotion-focused strategies that ease distress instead of removing its source; shopping then serves as a convenient means of distraction, pleasure, symbolic comfort, or restored control. Retail therapy is thus a deliberate coping tendency that uses purchases to repair negative affect, as shown when consumers buy self-treats to lift mood (Atalay & Meloy, 2011) or regain a sense of agency that reduces residual sadness (Rick et al., 2014). In e-commerce, the barrier is especially low: instant search, personalized suggestions, saved payments, and always-on platforms let emotion-focused motives convert quickly into purchases. Consequently, loneliness and anxiety strengthen retail therapy coping tendency, which subsequently transforms these negative emotional states into spontaneous and hedonically motivated impulse buying behavior on digital platforms. This behavioral response becomes more likely when consumers repeatedly associate purchasing with immediate mood improvement, consistent with evidence linking affective coping through spending to impulsive and problematic buying behavior (Rice et al., 2020). The study, therefore, assumes consumers appraise loneliness and anxiety as distressing and view online shopping as an accessible resource, so stronger distress heightens retail therapy coping that then fuels unplanned purchasing in a frictionless marketplace.

2.2.2. Process Model of Emotion Regulation

Gross (1998) introduced the Process Model of Emotion Regulation, later refined as the Extended Process Model (Gross, 2015b), which portrays emotion regulation as the set of processes that shape which feelings arise, their timing, and how they are expressed or converted into action. Emotion generation proceeds through situation, attention, appraisal, and response, while regulation can intervene at any stage via situation selection or modification, attentional deployment, cognitive change, or response modulation. The extended version further stresses that regulation begins by detecting a discrepancy between current and desired effect, then choosing and enacting a suitable strategy, skills that extend well beyond simple suppression to encompass emotional awareness, strategy selection, and impulse management. Within this study, the framework accounts for why people differ in e-commerce impulse buying. Online shoppers routinely meet negative mood, vivid product images, tailored ads, scarcity cues, and frictionless checkout options that generate arousal and a pull toward instant reward. Individuals higher in regulation capability notice the activation, shift attention, reappraise whether the purchase is truly needed, endure short-term discomfort, and postpone the decision until practical consequences are weighed; antecedent-focused tactics such as cognitive reappraisal prove especially useful because they alter meaning before a strong behavioral urge takes hold, and meta-analytic findings confirm that strategies vary systematically in effectiveness (Webb et al., 2012). When capability is lower, emotional wanting more easily blurs with actual need, so buying itself becomes a response-modulation tactic aimed at changing already-present distress. Stronger regulation therefore lessens dependence on spontaneous purchases, while weaker regulation heightens vulnerability, an account aligned with impulse buying as a self-regulatory contest between immediate affective gains and longer-term goals (Verplanken & Sato, 2011). The same model also explains the direct link from retail-therapy coping to impulse buying: treating shopping as a deliberate strategy for easing sadness, anxiety, loneliness, or stress forges an association between purchase and mood relief; once that link is learned, distress reliably triggers the urge to buy. Digital platforms accelerate the cycle by compressing the gap between emotional cue and transaction, allowing browsing to redirect attention, selection to supply anticipation and control, and checkout to deliver rapid reward. Consequently, emotional regulation capability and retail therapy coping tendency represent two different pathways through which consumers manage their emotions. Strong emotional regulation capability helps consumers control purchasing urges, evaluate product necessity, and avoid unplanned purchases. In contrast, habitual reliance on retail therapy encourages consumers to use shopping as a means of relieving negative emotions. The accessibility and convenience of e-commerce platforms further facilitate this coping response, thereby increasing emotionally driven impulse buying behavior.

2.3. The Impact of Loneliness on Retail Therapy Coping Tendency

Loneliness is a subjective, distressing state that arises when people sense a gap between the social ties they want and those they actually have; unlike objective isolation, it can occur even amid company and need not follow from solitude itself (Yanguas et al., 2018). Evolutionary accounts treat the feeling as an aversive cue that pushes individuals to reclaim belonging and interpersonal security (Cacioppo & Cacioppo, 2018), while consumer research shows it can reshape product choices, marketplace bonds, material attachment, and compensatory buying because goods and commercial exchanges sometimes stand in for missing relationships (Fumagalli et al., 2022; Huang & Li, 2023).

As the feeling intensifies, the drive to ease discomfort and regain pleasure, control, or symbolic connection grows; retail therapy supplies an emotion-focused route because browsing and buying can briefly distract from disconnection and offer self-reward or imagined affiliation, a process e-commerce amplifies through constant access, tailored suggestions, interactive features, and

instant payment. Systematic evidence links spending, marketplace contact, and experiential consumption to loneliness relief (Huang & Li, 2023), and materialistic orientations can likewise serve as coping (Gentina et al., 2018). Stronger support comes from findings that loneliness fuels shopping escapism and impulsive buying via materialistic pathways (Mendini & Furchheim, 2025) and that stressful experiences prompt compensatory retail therapy aimed at restoring well-being (Kim & Chang, 2023). The link is not absolute, however: loneliness can elicit both adaptive and problematic consumption (Fumagalli et al., 2022), its influence in live commerce may run through telepresence (Peng et al., 2022), and some people prefer real social contact, active solitude, or withdrawal instead of shopping (Huang & Li, 2023). This variability fits a postpositivist view that treats the effect as probabilistic rather than fixed, yet the weight of compensatory-consumption and coping research still warrants the expectation that, on average, higher loneliness elevates the tendency to turn to online shopping for emotional relief.

H1: Loneliness has a positive impact on retail therapy coping tendency in e-commerce.

2.4. The Impact of Anxiety on Retail Therapy Coping Tendency

Anxiety is a negative affective state marked by apprehension, elevated arousal, ongoing worry, and the expectation of uncertain threats; unlike fear, which reacts to a clear and present danger, it arises when potentially harmful outcomes remain indefinite in timing, likelihood, or intensity (Grupe & Nitschke, 2013). Within the Transactional Theory of Stress and Coping, anxiety appears once situational demands are appraised as threatening and available resources seem inadequate (Lazarus & Folkman, 1984), thereby triggering efforts either to confront the threat or to ease its emotional toll. Consumer studies indicate that such efforts can take the form of avoidance, escapism, symbolic compensation, or purchases aimed at reclaiming a sense of control (Mandel et al., 2017).

As anxiety rises, the urge to escape persistent worry and regain emotional equilibrium intensifies, and shopping can serve that end by diverting attention from threatening thoughts, generating anticipatory pleasure, offering self-reward, and restoring perceived agency through product choice. E-commerce heightens the appeal of this strategy via constant access, tailored suggestions, swift checkout, and private settings that lower both effort and social exposure. Supporting evidence shows anxiety elevating impulsive and compulsive buying (Cachón-Rodríguez et al., 2025), perceived stress fueling problematic online purchases partly through negative coping (Zheng et al., 2020), and stressful life events prompting compensatory retail therapy (Kim & Chang, 2023), suggesting that repeated anxiety may teach consumers to associate shopping with rapid, if temporary, relief. The link is not automatic, however: individuals may respond to anxiety through various strategies, including directly resolving its source, seeking symbolic compensation, distancing themselves from the distressing situation, or engaging in escapist activities. Therefore, anxiety does not necessarily lead consumers to use shopping as a coping mechanism (Mandel et al., 2017). Additionally, compensatory consumption itself varies along a continuum shaped by motives and resources (Koles et al., 2018). Individuals with effective coping skills, financial limits, or social support may manage anxiety without retail therapy; thus, the effect can be weak or neutral when adaptive alternatives exist and stronger when shopping is viewed as an accessible emotional escape. This probabilistic rather than deterministic pattern aligns with a postpositivist stance and, on the weight of theory and evidence, underpins the expectation that greater anxiety elevates retail-therapy coping tendency. Accordingly, the dominant theoretical reasoning and empirical evidence support the following hypothesis:

H2: Anxiety has a positive impact on retail therapy coping tendency in e-commerce.

2.5. The Impact of Retail Therapy Coping Tendency

Retail therapy coping tendency (RTCT) refers to a person's tendency to shop or make purchases to reduce emotional distress, improve their mood, or regain a sense of control. Unlike hedonic shopping, which is mainly motivated by pleasure and enjoyment, retail therapy primarily serves as a coping response to negative emotions (Atalay & Meloy, 2011; Rick et al., 2014). Experimental evidence shows that making shopping choices can reduce lingering sadness by restoring a sense of personal agency, even when no purchase is completed (Rick et al., 2014). Cross-cultural online evidence also indicates that shopping as a response to crises strongly predicts therapeutic purchasing behaviour (Zulauf & Wagner, 2022). From a phenomenological perspective, retail therapy gains meaning from consumers' personal experience of shopping as a source of comfort. This relief may arise through restored control, anticipated rewards, and emotional regulation. Nevertheless, RTCT can have both positive and negative consequences. Although shopping may provide temporary emotional relief, frequent dependence on it may replace more constructive coping strategies and harm financial well-being. Therefore, RTCT should be understood as a situational form of emotional self-regulation rather than a clinical treatment or simply irrational behaviour.

As RTCT becomes stronger, consumers are more likely to enter online marketplaces in search of emotional comfort. Easy access, personalized recommendations, rapid checkout, and constant availability shorten the time between experiencing distress and making a purchase. Consequently, an intention to cope can quickly develop into an immediate buying urge (Nyrhinen et al., 2024).

Zulauf and Wagner (2022) found that crisis-coping shopping had almost three times more influence on actual therapeutic purchases than general therapeutic motives. Similarly, mood-repair processes can increase the hedonic value of shopping and subsequently encourage impulse buying (Parsad et al., 2021). Negative emotions may also promote impulsive online purchases by reducing cognitive flexibility and increasing intolerance of uncertainty (Yu, 2022). These findings suggest that consumers may act quickly because they expect a purchase to provide emotional relief, leaving less room for careful consideration.

However, this relationship is not automatic. Retail therapy may involve browsing, comparing products, delaying purchases, or planning an affordable treat. Indeed, making shopping choices alone can reduce sadness without requiring an actual purchase (Rick et al., 2014). Moreover, positive moods may sometimes encourage greater impulsivity than negative moods (Pornpitakpan et al., 2017). Factors such as self-control, financial constraints, product type, and cognitive reappraisal can therefore weaken the progression from coping-oriented shopping to impulse buying. Digital platforms may nevertheless strengthen this progression through personalized and repeated promotional prompts. Overall, individuals with stronger RTCT are more receptive to rapid purchasing as a form of emotional relief. Thus, RTCT is expected to have a positive influence on impulse buying behaviour on e-commerce platforms, as stated in the following hypothesis:

H3: Retail therapy coping tendency has a positive impact on impulse buying behavior on e-commerce platforms.

2.6. The impact of Emotional Regulation Capability

Emotional regulation capability (ERC) refers to a person's ability to recognize, monitor, and manage the intensity, duration, and expression of emotions in ways that support personal goals. It involves selecting suitable situations, redirecting attention, reconsidering the meaning of events, and adjusting emotional responses rather than merely suppressing feelings (Gross, 2015a). Because emotions influence attention, judgment, and behaviour, effective emotional regulation helps individuals make deliberate decisions when strong feelings might otherwise interfere with goal-directed action. In consumer settings, impulse buying is more common among individuals who experience strong needs to regulate their moods but lack effective strategies. This suggests that spontaneous purchasing may become an unhealthy way of managing emotions (Fenton-O'Creevy et al., 2018). From a positivist perspective, ERC can be treated as an underlying capability measured through observable strategies and outcomes. Phenomenology focuses on how individuals personally experience and manage emotional episodes, while critical realism connects these subjective experiences with deeper cognitive mechanisms. Nevertheless, ERC is not always beneficial because its effectiveness depends on the strategy, timing, and situation. Cognitive reappraisal may support self-control, whereas suppressing emotional expression can consume mental resources and produce undesirable behavioural consequences.

As ERC improves, online shoppers become better able to recognize emotional triggers, tolerate temporary discomfort, reconsider promotional messages, and delay purchase decisions. These abilities can interrupt the progression from emotional arousal to unplanned online purchasing. Fenton-O'Creevy et al. (2018) found that chronic impulse buying was particularly common among individuals with strong mood-regulation needs but ineffective regulation strategies. Similarly, emotional regulation capability has been found to weaken the relationship between internet addiction and online impulse buying (Aghaei et al., 2026). From a self-regulation perspective, effective ERC protects long-term financial goals from the attraction of immediate emotional rewards by helping consumers regain reflective control over their decisions.

However, different regulation strategies may not produce the same outcomes. Van Overveld (2016) found that cognitive reappraisal did not significantly reduce impulse purchases compared with a neutral condition, whereas emotional suppression increased both impulse purchasing and expenditure because it depleted cognitive resources. The effects of emotional intelligence may also vary according to internet-use patterns, product characteristics, and situational cues (Jie et al., 2022). Positivism therefore supports testing ERC as a measurable capacity to control impulses, while interpretivism highlights the personal meanings and goals that shape emotional responses. Critical realism combines these perspectives by explaining observed self-restraint through underlying mechanisms such as reappraisal, tolerance of purchasing urges, and attentional control. Overall, stronger ERC is expected to reduce impulse buying behaviour on e-commerce platforms, although the strength of this effect depends on the strategies used and the surrounding conditions. Accordingly, H4 is as follows:

H4: Emotional regulation capability has a negative impact on impulse buying behavior on e-commerce platforms.

Building on established theoretical foundations, this study advances the existing literature by developing the following conceptual framework:

From Psychological Distress to Impulse Buying Behavior: Examining Retail Therapy as a Coping Mechanism in E-Commerce

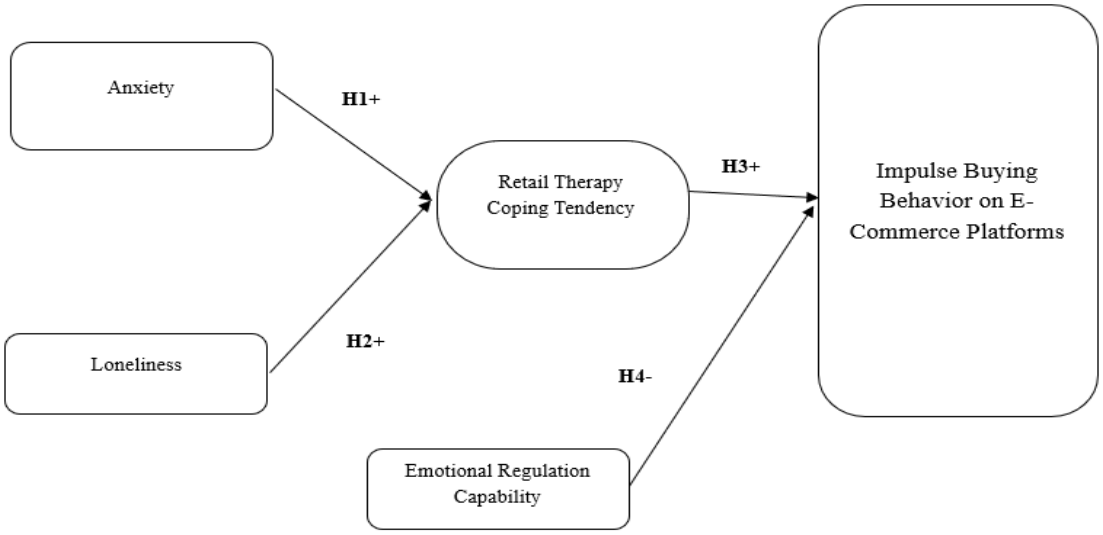


Figure 1: The Paper Conceptual Framework

3. METHODS

3.1. Sampling Strategy

This study employed a quantitative cross-sectional approach to test how loneliness and anxiety shape retail therapy coping tendency, how that tendency in turn drives impulse buying on e-commerce platforms, and how emotional regulation capability directly curbs such buying. The design permitted simultaneous examination of direct and mediated paths through standardized survey data gathered at one time point (Bryman, 2016). Individual online consumers formed the unit of analysis; stratified purposive sampling targeted adults aged 18 or older who had used an e-commerce site and made at least one online purchase in the prior six months. Respondents were drawn from university students, young professionals, working adults, and other regular shoppers, with stratification by demographics and shopping frequency to avoid over-representing any single group. A structured self-administered questionnaire was distributed via Google Forms across university groups, shopping communities, professional networks, and social media. Items were adapted from prior work: loneliness gauged perceived social disconnection and unmet relational needs (Yanguas et al., 2018); anxiety captured worry, apprehension, and uncertainty-related tension (Grupe & Nitschke, 2013); retail therapy coping tendency assessed reliance on browsing or buying to ease distress, lift mood, or regain control (Rick et al., 2014; Zulauf & Wagner, 2022); emotional regulation capability measured awareness, cognitive reappraisal, attentional control, and response management (Gross, 2015a); and impulse buying behavior recorded sudden, unplanned, weakly deliberated online purchases (Redine et al., 2023). All used a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Content validity and clarity were checked by academic specialists, and a pilot survey prompted minor wording adjustments. After discarding incomplete, duplicate, ineligible, and patterned replies, 385 usable questionnaires remained, sufficient for regression and mediation work (Saunders et al., 2016).

3.2. Data Analysis

Data were analysed using IBM SPSS Statistics version 20. Descriptive statistics first outlined respondent profiles and variable distributions; Cronbach's alpha evaluated internal consistency, accepting values above 0.70 (Tavakol & Dennick, 2011). Exploratory factor analysis applied principal-component extraction and Varimax rotation, retaining loadings above 0.50 (Hair et al., 2019). Multiple regression then tested the positive effects of loneliness and anxiety on retail therapy coping tendency, the positive effect of that tendency on impulse buying, and the negative direct effect of emotional regulation capability on impulse buying. Significance was set at $p < 0.05$, yielding reliable estimates of the hypothesized direct relationships (Shrestha, 2020).

4. RESULTS

4.1. Descriptive Statistical Analysis

The sample consisted of 385 adult consumers reflecting a range of demographic profiles and online shopping patterns. Age wise, those between 25 and 34 formed the biggest share at 35.6%, with the 18 to 24 group next at 31.2% and the 35 to 44 group at 21.8%. The remaining 11.4% were 45 or older. For occupational status, other working adults made up the top share at 34.0%, followed by young professionals at 29.6%, university or college students at 24.7%, and other regular online shoppers at 11.7%. On monthly purchase frequency, 36.4% completed three to five online buys, 27.0% completed six to ten, 20.5% completed one to two,

and 16.1% completed more than ten. In addition, 38.4% had shopped on e-commerce platforms for four to six years, 27.8% for one to three years, and 26.3% for over six years, while only 7.5% had less than one year of experience. For short, the results show that the sample drew from varied age and occupational backgrounds, with most respondents holding solid e-commerce experience and shopping online often, which left them well placed to assess loneliness, anxiety, retail therapy coping tendency, emotional regulation capability, and impulse buying behavior on e-commerce platforms.

4.2. Reliability analysis

Table 1 presents the measurement items used to operationalize the research constructs. Each construct was measured through four items adapted from established academic literature to ensure theoretical alignment and adequately represent its core dimensions. Participants rated all items on a five-point Likert scale ranging from 1, strongly disagree, to 5, strongly agree.

Table 1: Measurement Items

Code	Survey item	Theoretical source
Impulse Buying Behavior on E-Commerce Platforms		
IBB1	I often purchase products online that I did not plan to buy beforehand.	Iyer et al. (2020); Redine et al. (2023)
IBB2	I sometimes complete an online purchase shortly after first seeing a product.	Chan et al. (2017); Zhao et al. (2022)
IBB3	I tend to buy products online without carefully considering whether I need them.	Iyer et al. (2020); Redine et al. (2023)
IBB4	I sometimes complete online purchases without fully considering their longer-term financial consequences.	Darrat et al. (2016); Redine et al. (2023)
Loneliness		
LON1	I feel that my current social relationships do not provide the closeness I desire.	Yanguas et al. (2018); Cacioppo & Cacioppo (2018)
LON2	I frequently feel disconnected from the people around me.	Yanguas et al. (2018); Fumagalli et al. (2022)
LON3	I feel that I lack meaningful companionship in my daily life.	Yanguas et al. (2018); Huang & Li (2023)
LON4	I sometimes feel lonely even when other people are present.	Yanguas et al. (2018); Cacioppo & Cacioppo (2018)
Anxiety		
ANX1	I frequently worry about negative events that might occur.	Grupe & Nitschke (2013); Lazarus & Folkman (1984)
ANX2	I feel apprehensive when I face uncertain situations.	Grupe & Nitschke (2013); Mandel et al. (2017)
ANX3	I find it difficult to relax when future outcomes are unclear.	Grupe & Nitschke (2013); Zheng et al. (2020)
ANX4	I remain highly alert to possible threats even when no immediate danger is present.	Grupe & Nitschke (2013); Obbarius et al. (2021)
Retail Therapy Coping Tendency		
RTCT1	I tend to shop when I want to improve a negative mood.	Atalay & Meloy (2011); Rick et al. (2014)
RTCT2	I browse online stores to distract myself from emotional discomfort.	Rice et al. (2020); Kim & Chang (2023)
RTCT3	Making purchasing choices helps me regain a sense of personal control.	Rick et al. (2014); Mandel et al. (2017)
RTCT4	I treat myself to a purchase when I need emotional comfort.	Atalay & Meloy (2011); Zulauf & Wagner (2022)
Emotional Regulation Capability		
ERC1	I can recognize when my emotions are beginning	Fenton-O'Creevy et al. (2018)

	to influence my behavior.	
ERC2	I can reconsider a situation to reduce the intensity of my emotional response.	Webb et al. (2012)
ERC3	I can tolerate temporary emotional discomfort without acting immediately.	Verplanken & Sato (2011)
ERC4	I can redirect my attention when strong emotions interfere with my personal goals.	Webb et al. (2012)

Table 2: Reliability analysis of "Impulse Buying Behavior on E-Commerce Platforms".

Reliability Statistics

Cronbach's Alpha	N of Items
.787	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IBB1	10.946	2.731	0.641	0.749
IBB2	11.083	2.895	0.526	0.775
IBB3	10.872	2.648	0.593	0.760
IBB4	11.021	2.784	0.601	0.759

Source: (The authors, 2026)

As shown in Table 2, every one of the four items produced corrected item-total correlations between 0.526 and 0.641, all above the suggested 0.30 cutoff. The full scale reached a Cronbach's alpha of 0.787, which clears the 0.70 acceptability floor and supports adequate internal consistency. In addition, the alpha scores calculated after dropping each item separately fell between 0.749 and 0.775, and each stayed below the overall alpha. Such an outcome demonstrates that discarding any single item would lower the scale's reliability. Consequently, ibb1 through ibb4 added clear value to the measurement of impulse buying behavior on e-commerce platforms and were kept for later analyses. Similar reliability figures appeared for the remaining measurement scales used in the research (Hair et al., 2009; Tavakol & Dennick, 2011).

4.3. Exploratory factor analysis (EFA)

Table 3: Factor Loading Matrix.

Rotated Component Matrix[a]							
Component with loading factors							
1		2		3		4	
LON1	0.781	ANX1	0.774	RTCT1	0.806	ERC1	0.765
LON2	0.825	ANX2	0.819	RTCT2	0.784	ERC2	0.812
LON3	0.746	ANX3	0.752	RTCT3	0.837	ERC3	0.789
LON4	0.798	ANX4	0.791	RTCT4	0.761	ERC4	0.738
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.							
a. Rotation converged in 7 iterations.							

Source: (The authors, 2026)

Table 3 displays the exploratory factor analysis outcomes and reveals four separate factors that capture loneliness, anxiety, retail therapy coping tendency, and emotional regulation capability. Every one of the 16 measurement items loaded firmly onto its expected factor, with loadings stretching from 0.738 to 0.837 and all surpassing the 0.50 benchmark (Hair et al., 2009). The Varimax rotation settled after six iterations, which points to a stable factor solution. As a result, none of the measurement items were dropped and the full set of 16 indicators stayed in place for later statistical work. Taken as a whole, these results offer solid support for the intended four-factor structure and for the construct validity of the measurement model.

4.4. Multiple linear regression model

Table 4: Coefficients[a].

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	0.518	0.126		4.111	0.000
LON	0.462	0.037	0.519	12.486	0.000
ANX	0.557	0.035	0.628	15.914	0.000
a. Dependent Variable: RTCT					

Source: (The authors, 2026)

Where LON represents the mean of LON1 to LON4, ANX represents the mean of ANX1 to ANX4, and RTCT represents the mean of RTCT1 to RTCT4.

Table 4 indicates that the significance values for the links of loneliness with retail therapy coping tendency and of anxiety with retail therapy coping tendency both stood at 0.000, far beneath the 0.05 threshold. Loneliness produced a significant positive impact on retail therapy coping tendency, reflected in $\beta = 0.519$, $t = 12.486$. Anxiety likewise generated a significant positive impact, marked by $\beta = 0.628$. As a result, anxiety showed a stronger relative influence on retail therapy coping tendency than loneliness. These outcomes supply firm empirical support for accepting H1 and H2.

Table 5: Coefficients[a].

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	2.846	0.139		20.475	0.000
RTCT	0.521	0.033	0.584	15.788	0.000
ERC	−0.548	0.034	−0.605	−16.118	0.000
a. Dependent Variable: IBB					

Source: (The authors, 2026)

Where RTCT represents the mean of RTCT1 to RTCT4, ERC represents the mean of ERC1 to ERC4, and IBB represents the mean of IBB1 to IBB4.

As shown in Table 5, the significance values for the relationships between retail therapy coping tendency and impulse buying behavior on e-commerce platforms and between emotional regulation capability and impulse buying behavior were both 0.000, which is well below the 0.05 threshold. Retail therapy coping tendency had a significant positive effect on impulse buying behavior, with $\beta = 0.584$. In contrast, emotional regulation capability exerted a significant negative effect on impulse buying behavior, with $\beta = -0.605$. Based on the absolute standardized coefficients, emotional regulation capability had a slightly stronger effect than retail therapy coping tendency. These findings provide strong empirical support for accepting H3 and H4.

5. DISCUSSION

5.1. Result Summary

Loneliness and anxiety produce significant positive effects on retail therapy coping tendency, shown by the standardized regression coefficients of 0.519 and 0.628 respectively. These outcomes reveal that consumers facing social disconnection, apprehension, uncertainty, or ongoing worry tend more often to turn to online shopping for distraction, emotional comfort, mood enhancement, and recovery of personal control. Anxiety displays a stronger relative impact than loneliness, which implies that worry and uncertainty may serve as especially potent psychological prompts for shopping-based coping. Retail therapy coping tendency then yields a significant positive influence on impulse buying behavior on e-commerce platforms, reflected in a standardized coefficient of 0.584. This finding implies that consumers who regularly shop to handle negative emotions become more inclined toward swift, unplanned purchases that give limited weight to product necessity or longer-term financial effects. In contrast, emotional regulation capability generates a significant negative influence on impulse buying behavior, with beta of −0.605. Consumers able to identify emotional triggers, endure temporary discomfort, shift their focus, and reexamine emotionally charged situations therefore show lower likelihood of spontaneous online purchases. In absolute terms, emotional regulation capability registers a slightly stronger direct effect than retail therapy coping tendency.

Overall, the empirical results uphold all four hypotheses and confirm the theoretical framework that links psychological distress, shopping-based coping, emotional regulation, and online impulse buying. With respect to the research questions, the findings establish that loneliness and anxiety significantly raise retail therapy coping tendency, with anxiety generating the stronger effect. They also confirm that retail therapy coping tendency raises impulse buying while emotional regulation capability lowers it. In short, these outcomes indicate that impulse buying cannot be attributed solely to e-commerce convenience or promotional stimuli. It also mirrors the ways consumers encounter psychological distress and manage their emotions. Reducing harmful impulse buying may therefore call for emotional awareness interventions, cooling off periods, voluntary spending controls, and responsible platform features that assist consumers in pausing and reassessing purchases made under emotional pressure.

5.2. Theoretical Implications

The findings strongly support H1, showing that loneliness significantly raises retail therapy coping tendency with beta of 0.519. This outcome aligns with Yanguas et al. (2018), who frame loneliness as distress stemming from a perceived shortfall in desired relationships, and Cacioppo and Cacioppo (2018), who view it as an aversive signal that prompts efforts to restore connection. It further backs Mendini and Furchheim (2025) and Kim and Chang (2023), whose work connects loneliness or stressful experiences with escapist and compensatory consumption. Still, this study rejects any deterministic assertion that loneliness always yields shopping-based coping. Fumagalli et al. (2022) contend that loneliness may encourage either adaptive or problematic consumption, while Huang and Li (2023) note that individuals may instead pursue social contact or accept solitude. The moderate coefficient bolsters this conditional reading. Theoretically, the study expands the Transactional Theory of Stress and Coping by casting loneliness as an appraised relational stressor that fosters emotion-focused consumption when shopping appears as an accessible coping resource. It thereby clarifies how social disconnection finds commercial expression without reducing loneliness to objective isolation or treating retail therapy as its unavoidable outcome.

The findings strongly support H2, indicating that anxiety positively shapes retail therapy coping tendency with beta of 0.628. This result accords with Grupe and Nitschke (2013), who describe anxiety through apprehension and sensitivity to uncertain threats, and with Lazarus and Folkman (1984), who maintain that perceived threats trigger coping when personal resources seem insufficient. It also aligns with Cachón-Rodríguez et al. (2025), Zheng et al. (2020), and Kim & Chang (2023), whose research ties anxiety or stress to problematic purchasing, negative coping, and compensatory retail therapy. Yet, this work challenges the notion that anxious consumers always seek relief through consumption. Mandel et al. (2017) illustrate that anxiety can produce problem solving, avoidance, symbolic compensation, or escapism, while Koles et al. (2018) show that compensatory consumption hinges on motives and available resources. Anxiety's stronger coefficient compared with loneliness nevertheless implies that uncertain threat generates especially intense pressure for swift emotional relief. Theoretically, this study advances the Transactional Theory of Stress and Coping by framing retail therapy as a marketplace-based, emotion-focused reaction to anxiety appraisal. It thereby links psychological threat processing with digital consumer coping while retaining the probabilistic nature of that link.

The empirical findings strongly support H3, since retail therapy coping tendency significantly raises impulse buying behavior on e-commerce platforms with beta of 0.584. This outcome accords with Zulauf & Wagner (2022), who show that crisis coping shopping strongly forecasts therapeutic purchasing, and Parsad et al. (2021), who connect mood repair and hedonic value with impulse buying tendencies. It further backs Nyrhinen et al. (2024), whose analysis indicates that accessible digital environments ease rapid progress from emotional motivation to purchase. Even so, the findings do not uphold the stronger claim that every instance of retail therapy ends in impulse buying. Rick et al. (2014) demonstrate that purchase choice alone can ease sadness without completed acquisition, whereas Pornpitakpan et al. (2017) observe that positive moods may spur greater impulsivity than negative moods. Retail therapy may therefore encompass browsing, planned self-rewards, or delayed purchases rather than automatic behavioral loss of control. Theoretically, this study extends the Process Model of Emotion Regulation by casting shopping-based coping as a response focused strategy that may transform emotional discomfort into immediate consumption. It clarifies retail therapy's theoretically debated position by revealing that short term mood management can also serve as a route toward financially consequential impulse buying.

The findings strongly support H4, showing that emotional regulation capability significantly lowers impulse buying behavior with beta of −0.605. This outcome aligns with Gross (2015a), who defines emotion regulation as the capacity to notice emotional activation and choose strategies that match responses with personal goals. It also backs Fenton-O'Creevy et al. (2018), who link chronic impulse buying with strong mood regulation demands and ineffective regulatory strategies. However, the study does not endorse the oversimplified view that every emotion regulation strategy restrains purchasing equally. Van Overveld (2016) found that cognitive reappraisal did not reliably curb impulse buying, whereas expressive suppression raised impulsive purchases by depleting cognitive resources. Likewise, Jie et al. (2022) note that emotional intelligence yields context-dependent consumer

outcomes. The strong negative coefficient therefore captures general regulatory capability rather than the universal success of any particular strategy. Theoretically, this study advances the Process Model of Emotion Regulation by showing that emotional regulation functions as a direct inhibitory capacity within digital consumption. It offsets retail therapy coping by sustaining reflective control when emotional activation and frictionless purchasing would otherwise prompt immediate action.

5.3. Practical Implications

The positive influence of loneliness on retail therapy coping tendency implies that e-commerce firms ought to refrain from targeting socially disconnected consumers through emotionally manipulative personalization. Although shopping can offer temporary comfort, it cannot replace meaningful social relationships and may foster harmful consumption patterns when repeatedly employed to ease isolation. Platforms might adopt responsible recommendation policies that limit repetitive scarcity messages, emotionally targeted notifications, and excessive promotional exposure for users showing intense late-night browsing or repeated comfort seeking purchases. They might also offer optional spending summaries and reflective prompts that help users separate emotional needs from product needs. These steps acknowledge that consumption can yield both constructive and harmful reactions to loneliness (Fumagalli et al., 2022). Consumer protection organizations and mental health practitioners should further encourage social connection, community involvement, and non-commercial coping resources because loneliness does not inevitably demand a consumption-based response (Huang & Li, 2023).

Anxiety generated the strongest positive influence on retail therapy coping tendency, which shows that anxious consumers form a particularly vulnerable group. Managers should not treat this outcome as grounds for anxiety-based marketing. Urgency messages, countdown timers, stock warnings, and personalized pressure may heighten uncertain threat appraisal and turn emotional vulnerability into purchasing. Platforms should instead let consumers disable urgency notifications, set voluntary expenditure limits, and enable temporary cooling off functions before finalizing non-essential purchases. Financial educators and counselling professionals could help consumers identify anxiety-triggered shopping and redirect distress toward problem solving, social support, or alternative coping responses. Such a stance matches evidence that anxiety can produce multiple responses rather than shopping alone (Mandel et al., 2017) and that compensatory consumption hinges on consumers motives and available resources (Koles et al., 2018). The implication remains protective rather than commercially exploitative.

The significant positive effect of retail therapy coping tendency on impulse buying suggests that e-commerce platforms should distinguish between occasional self-reward and repeated emotion-driven purchasing. Retailers could provide optional safeguards such as order-review pages, delayed payment confirmation, cancellation periods, purchase-history dashboards, and notifications when customers exceed their self-defined spending limits. These features give consumers more time to reconsider their decisions between experiencing emotional distress and completing a transaction. This is particularly important because the speed and convenience of digital shopping can encourage impulse buying (Nyrhinen et al., 2024). However, retailers should not treat every form of therapeutic shopping as harmful. Making shopping choices can sometimes reduce sadness and restore a sense of control without resulting in unnecessary purchases (Rick et al., 2014). Any intervention should therefore be voluntary, proportionate, and focused on repeated purchasing patterns that may place consumers at financial or psychological risk. Consumers may also benefit from mindfulness and emotional-awareness training. Mindfulness has been associated with lower online impulse buying through mechanisms involving problematic internet use and emotional intelligence (Vihari et al., 2022). Collectively, these measures can protect consumers' freedom of choice while encouraging a more ethical and responsible approach to e-commerce design.

The significant negative effect of emotional regulation capability on impulse buying suggests that reducing impulsive purchases requires both strengthening consumers' emotional-management skills and creating more responsible e-commerce environments. Consumer educators, financial counsellors, and mental health professionals could teach consumers how to recognize emotions, reinterpret distressing situations, redirect attention, tolerate temporary buying urges, and delay purchase decisions. These skills may help individuals distinguish between an emotionally driven desire and a genuine need before completing a transaction. However, interventions should not assume that all emotional regulation strategies are equally effective. Suppressing emotions may consume cognitive resources and increase impulsive spending rather than reduce it (Van Overveld, 2016). Training should therefore encourage consumers to select strategies flexibly according to the situation. This approach reflects Gross's (2015b) view that effective emotional regulation involves identifying emotional differences and choosing contextually appropriate responses. E-commerce platforms could reinforce these skills by providing optional pause reminders, wish-list functions, delayed checkout options, spending notifications, and emotionally neutral product recommendations. Mindfulness-based support may also be valuable because mindfulness and emotional intelligence are associated with lower levels of online impulse buying (Vihari et al., 2022). Nevertheless, responsibility should be shared between consumers and retailers. Platforms should not place the entire burden of resisting persuasive or manipulative digital environments on individual consumers.

5.4. Limitations

This study has several limitations. First, its cross-sectional design does not allow firm conclusions about causality or confirm whether psychological distress occurs before retail therapy coping and impulse buying. Second, the use of self-reported data may introduce recall errors, social desirability bias, and common method variance, particularly because emotion-driven purchasing is a sensitive behaviour. Purposive online sampling also limits the extent to which the findings can be generalized beyond the surveyed consumers. Moreover, the study measured consumers' perceptions of their behaviour rather than examining verified transactions, actual expenditure, or browsing histories. Although retail therapy coping tendency was theoretically proposed as a mediator, regression results alone cannot confirm mediation without testing the bootstrapped indirect effects. Emotional regulation capability was also measured as a general capability, which may conceal important differences among cognitive reappraisal, attentional redirection, emotional suppression, and tolerance of purchasing urges. Finally, the model did not include other potentially influential factors, such as income, financial stress, platform design, promotional exposure, product category, social support, and self-control.

5.5. Future Research Directions

Future research should use longitudinal and experimental designs to establish the temporal relationships among loneliness, anxiety, retail therapy coping tendency, emotional regulation capability, and impulse buying. Bootstrapped mediation analysis should be conducted to determine whether retail therapy coping tendency carries the effects of loneliness and anxiety to impulse buying behaviour. Researchers could also combine survey responses with transaction histories, shopping diaries, expenditure records, or digital behavioural traces to reduce common method bias and provide more objective evidence. Emotional regulation capability should be examined as a multidimensional construct by comparing the effects of cognitive reappraisal, attentional redirection, suppression, mindfulness, and urge tolerance. Cross-cultural and multigroup studies could explore whether the proposed relationships differ according to age, gender, income, financial vulnerability, or experience with e-commerce platforms. Future models could additionally examine social support, self-control, financial stress, promotional intensity, and checkout friction as potential moderators. Finally, field experiments could assess whether cooling-off periods, spending alerts, wish-list functions, reflective prompts, and delayed checkout options can reduce emotion-driven purchasing without unnecessarily restricting consumer autonomy.

5.6. Conclusion

This study explains how psychological distress and emotional regulation shape impulse buying in e-commerce. Both loneliness and anxiety significantly increased retail therapy coping tendency, although anxiety produced the stronger effect. In turn, a stronger tendency to use shopping as an emotional coping mechanism increased impulse buying. By contrast, emotional regulation capability reduced impulse buying and had the strongest direct effect in absolute terms. These findings support both the Transactional Theory of Stress and Coping and the Process Model of Emotion Regulation. Retail therapy should therefore not be viewed as either entirely harmful or universally beneficial. Instead, it represents a coping response that may lead to problematic purchasing when consumers repeatedly depend on immediate emotional relief. By connecting psychological distress, coping behaviour, emotional self-regulation, and digital consumption, this study provides a more integrated explanation of impulse buying in e-commerce. In practical terms, responsible intervention requires both stronger consumer capabilities and appropriate platform safeguards. Relevant measures include emotional-awareness education, flexible regulation strategies, reflective purchasing tools, voluntary spending controls, and less reliance on promotional techniques that create urgency or psychological pressure.

REFERENCES

1) Aghaei, A. E., Tehranizadeh, M., & Aminzadeh, M. (2025). Unpacking the mechanisms between internet addiction and online impulse buying: Which is more critical, mindfulness or emotional intelligence? *Computers in Human Behavior Reports*, 100883. https://doi.org/10.1016/j.chbr.2025.100883
2) Atalay, A. S., & Meloy, M. G. (2011). Retail therapy: A strategic effort to improve mood. *Psychology & Marketing, 28*(6), 638–659. https://doi.org/10.1002/mar.20404
3) Bryman, A. (2016). *Social research methods*. Oxford University Press.
4) Cachón-Rodríguez, G., Blanco-González, A., Prado-Román, C., & Fernández-Portillo, A. (2025). How compulsive and impulsive buying affect consumer emotional regulation. Is anxiety a differential element? *European Journal of Management and Business Economics, 34*(3), 340–358. https://doi.org/10.1108/EJMBE-06-2023-0172
5) Cacioppo, J. T., & Cacioppo, S. (2018). The growing problem of loneliness. *The Lancet, 391*(10119), 426. https://doi.org/10.1016/S0140-6736(18)30142-9

6) Chan, T. K., Cheung, C. M., & Lee, Z. W. (2017). The state of online impulse-buying research: A literature analysis. *Information & Management, 54*(2), 204–217. https://doi.org/10.1016/j.im.2016.06.001
7) Darrat, A. A., Darrat, M. A., & Amyx, D. (2016). How impulse buying influences compulsive buying: The central role of consumer anxiety and escapism. *Journal of Retailing and Consumer Services, 31*, 103–108. https://doi.org/10.1016/j.jretconser.2016.03.009
8) Fenton-O'Creevy, M., Dibb, S., & Furnham, A. (2018). Antecedents and consequences of chronic impulsive buying: Can impulsive buying be understood as dysfunctional self-regulation? *Psychology & Marketing, 35*(3), 175–188. https://doi.org/10.1002/mar.21078
9) Fumagalli, E., Shrum, L. J., & Lowrey, T. M. (2022). Consuming in response to loneliness: Bright side and dark side effects. *Current Opinion in Psychology, 46*, 101329. https://doi.org/10.1016/j.copsyc.2022.101329
10) Gentina, E., Shrum, L. J., & Lowrey, T. M. (2018). Coping with loneliness through materialism: Strategies matter for adolescent development of unethical behaviors. *Journal of Business Ethics, 152*(1), 103–122. https://doi.org/10.1007/s10551-016-3329-x
11) Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271–299. https://doi.org/10.1037/1089-2680.2.3.271
12) Gross, J. J. (2015a). Emotion regulation: Current status and future prospects. *Psychological Inquiry, 26*(1), 1–26. https://doi.org/10.1080/1047840X.2014.940781
13) Gross, J. J. (2015b). The extended process model of emotion regulation: Elaborations, applications, and future directions. *Psychological Inquiry, 26*(1), 130–137. https://doi.org/10.1080/1047840X.2015.989751
14) Grupe, D. W., & Nitschke, J. B. (2013). Uncertainty and anticipation in anxiety: An integrated neurobiological and psychological perspective. *Nature Reviews Neuroscience, 14*(7), 488–501. https://doi.org/10.1038/nrn3524
15) Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.
16) Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (3rd ed.). Guilford Press.
17) Huang, S., & Li, M. (2023). Consumer loneliness: A systematic review and research agenda. *Frontiers in Psychology, 14*, 1071341. https://doi.org/10.3389/fpsyg.2023.1071341
18) Iyer, G. R., Blut, M., Xiao, S. H., & Grewal, D. (2020). Impulse buying: A meta-analytic review. *Journal of the Academy of Marketing Science, 48*(3), 384–404. https://doi.org/10.1007/s11747-019-00670-w
19) Jabutay, F. A., & Limpachote, T. (2024). Young adults' perceived social isolation and e-impulse buying on social commerce platforms: Linking roles of perceived stress and hedonic browsing. *Young Consumers, 25*(6), 807–823. https://doi.org/10.1108/YC-11-2023-1910
20) Jie, W., Poulova, P., Haider, S. A., & Sham, R. B. (2022). Impact of internet usage on consumer impulsive buying behavior of agriculture products: Moderating role of personality traits and emotional intelligence. *Frontiers in Psychology, 13*, 951103. https://doi.org/10.3389/fpsyg.2022.951103
21) Kim, S., & Chang, H. J. J. (2023). Mechanism of retail therapy during stressful life events: The psychological compensation of revenge consumption toward luxury brands. *Journal of Retailing and Consumer Services, 75*, 103508. https://doi.org/10.1016/j.jretconser.2023.103508
22) Koles, B., Wells, V., & Tadajewski, M. (2018). Compensatory consumption and consumer compromises: A state-of-the-art review. *Journal of Marketing Management, 34*(1–2), 96–133. https://doi.org/10.1080/0267257X.2017.1373693
23) Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
24) Mandel, N., Rucker, D. D., Levav, J., & Galinsky, A. D. (2017). The compensatory consumer behavior model: How self-discrepancies drive consumer behavior. *Journal of Consumer Psychology, 27*(1), 133–146. https://doi.org/10.1016/j.jcps.2016.05.003
25) Mendini, M., & Furchheim, P. (2025). Escaping loneliness through shopping: The role of materialism, impulse buying and escapism. *Journal of Consumer Marketing, 42*(3), 257–271. https://doi.org/10.1108/JCM-12-2023-6481
26) Nyrhinen, J., Sirola, A., Koskelainen, T., Munnukka, J., & Wilska, T. A. (2024). Online antecedents for young consumers' impulse buying behavior. *Computers in Human Behavior, 153*, 108129. https://doi.org/10.1016/j.chb.2023.108129
27) Obbarius, N., Fischer, F., Liegl, G., Obbarius, A., & Rose, M. (2021). A modified version of the transactional stress concept according to Lazarus and Folkman was confirmed in a psychosomatic inpatient sample. *Frontiers in Psychology, 12*, 584333. https://doi.org/10.3389/fpsyg.2021.584333

28) Parsad, C., Prashar, S., Vijay, T. S., & Kumar, M. (2021). Do promotion and prevention focus influence impulse buying: The role of mood regulation, shopping values, and impulse buying tendency. *Journal of Retailing and Consumer Services, 61*, 102554. https://doi.org/10.1016/j.jretconser.2021.102554
29) Peng, C., Liu, Z., Lee, J. Y., Liu, S., & Wen, F. (2022). The impact of consumers' loneliness and boredom on purchase intention in live commerce during COVID-19: Telepresence as a mediator. *Frontiers in Psychology, 13*, 919928. https://doi.org/10.3389/fpsyg.2022.919928
30) Pornpitakpan, C., Yuan, Y., & Han, J. H. (2017). The effect of salespersons' retail service quality and consumers' mood on impulse buying. *Australasian Marketing Journal, 25*(1), 2–11. https://doi.org/10.1016/j.ausmj.2016.12.003
31) Redine, A., Deshpande, S., Jebarajakirthy, C., & Surachartkumtonkun, J. (2023). Impulse buying: A systematic literature review and future research directions. *International Journal of Consumer Studies, 47*(1), 3–41. https://doi.org/10.1111/ijcs.12862
32) Rice, A., Garrison, Y. L., & Liu, W. M. (2020). Spending as social and affective coping (SSAC): Measure development and initial validation. *The Counseling Psychologist, 48*(1), 78–105. https://doi.org/10.1177/0011000019878848
33) Rick, S. I., Pereira, B., & Burson, K. A. (2014). The benefits of retail therapy: Making purchase decisions reduces residual sadness. *Journal of Consumer Psychology, 24*(3), 373–380. https://doi.org/10.1016/j.jcps.2013.12.004
34) Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th ed.). Pearson Education.
35) Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American Journal of Applied Mathematics and Statistics, 8*(2), 39–42. https://doi.org/10.12691/ajams-8-2-1
36) Spătaru, B., Podină, I. R., Tulbure, B. T., & Maricuțoiu, L. P. (2024). A longitudinal examination of appraisal, coping, stress, and mental health in students: A cross-lagged panel network analysis. *Stress and Health, 40*(5), e3450. https://doi.org/10.1002/smi.3450
37) Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53–55. https://doi.org/10.5116/ijme.4dfb.8dfd
38) Van Overveld, M. (2016). Emotion regulation can be costly. A study on the effects of emotion regulation strategies on impulsive purchases in consumers. *Innovative Marketing, 12*(1), 41–49. https://doi.org/10.21511/im.12(1).2016.04
39) Verplanken, B., & Sato, A. (2011). The psychology of impulse buying: An integrative self-regulation approach. *Journal of Consumer Policy, 34*(2), 197–210. https://doi.org/10.1007/s10603-011-9158-5
40) Vihari, N. S., Sinha, N. K., Tyagi, A., & Mittal, S. (2022). Effect of mindfulness on online impulse buying: Moderated mediation model of problematic internet use and emotional intelligence. *Frontiers in Psychology, 13*, 1012331. https://doi.org/10.3389/fpsyg.2022.1012331
41) Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: A meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin, 138*(4), 775. https://psycnet.apa.org/doi/10.1037/a0027600
42) Yanguas, J., Pinazo-Henandis, S., & Tarazona-Santabalbina, F. J. (2018). The complexity of loneliness. *Acta Bio Medica: Atenei Parmensis, 89*(2), 302. https://doi.org/10.23750/abm.v89i2.7404
43) Yu, Y. (2022). Effects of negative emotions and cognitive characteristics on impulse buying during COVID-19. *Frontiers in Psychology, 13*, 848256. https://doi.org/10.3389/fpsyg.2022.848256
44) Zhao, Y., Li, Y., Wang, N., Zhou, R., & Luo, X. (2022). A meta-analysis of online impulsive buying and the moderating effect of economic development level. *Information Systems Frontiers, 24*(5), 1667–1688. https://doi.org/10.1007/s10796-021-10170-4
45) Zheng, Y., Yang, X., Liu, Q., Chu, X., Huang, Q., & Zhou, Z. (2020). Perceived stress and online compulsive buying among women: A moderated mediation model. *Computers in Human Behavior, 103*, 13–20. https://doi.org/10.1016/j.chb.2019.09.012
46) Zulauf, K., & Wagner, R. (2022). Online shopping therapy: If you want to be happy, shop around. *Journal of International Consumer Marketing, 34*(3), 332–345. https://doi.org/10.1080/08961530.2021.1955425

There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (https://creativecommons.org/licenses/by-nc/4.0/), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.