



**The dark side of customer engagement on social media:
effects on self-esteem, materialism, technology addiction,
and impulsive buying**

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Abstract

Purpose: Online customer brand engagement is often considered a positive outcome of customer-brand relationships. However, customer engagement can have a dark side. This study investigates whether customer brand engagement affects self-esteem, materialism, technology addiction, and impulsive buying behavior, considering the role of gender.

Design/methodology/approach: We tested the hypotheses in our framework using covariance-based structural equation modeling and a sample of 1,076 UK luxury brand customers recruited from Prolific.

Findings: The findings show that customer engagement with luxury brands via SM lowers self-esteem while increasing materialism and technology addiction. Important gender differences are identified: self-esteem and materialism significantly influence impulsive buying among men but not women.

Practical Implications: Managers should be aware of the potential negative consequences of customer engagement. Strategies aimed at mitigating self-esteem issues and materialism can enhance customer well-being.

Originality: This is the first study that investigates the dark sides of customer brand engagement on SM, shedding light on the role of gender.

Research Limitations/implications: The study’s cross-sectional UK survey limits generalizability. Future research should adopt longitudinal or experimental designs, use mixed data sources, include diverse cultural samples, and examine additional negative outcomes of customer brand engagement.

Keywords: Customer Brand Engagement, Social Media, Dark Side, Self-Esteem, Materialism, Self-Discrepancy Theory, Gender, Impulsive Buying.

Introduction

With the rise of ubiquitous connectivity, customers increasingly connect, share, and interact with brands via social media (SM) platforms, which offer a unique space for individuals to engage with brands and their content ([Bazi et al., 2020](#)). Most marketing research, to date, has focused on the positive consequences of customer brand engagement through SM ([Hollebeek and Macky, 2019](#)), such as brand loyalty and brand love ([Bazi et al., 2023](#)), brand advocacy ([Sashi et al., 2019](#)), brand image ([Oliveira and Fernandes, 2022](#)), brand sales ([Guesalaga, 2016](#)), brand experience ([Zollo et al., 2020](#)), repurchase intention ([Hsu, 2023](#)), brand evangelism ([Nyadzayo et al., 2020](#)), purchase intention ([Onofrei et al., 2022](#)), word-of-mouth, firm performance ([de Oliveira Santini et al., 2020](#)), brand trust, and relationship value ([Taiminen and Ranaweera, 2019](#)).

Yet, while SM platforms offer numerous benefits, such as connectivity, information sharing, and entertainment, they also harbor a dark side that is often overlooked by marketing practitioners and scholars ([Page et al., 2018](#)). However, research on the dark side of SM, which indicates the unintended negative effects of SM on individuals, has been growing in medicine, information systems, management, and social science journals ([Baccarella et al., 2018](#); [Salo et al., 2018](#)). Works on social media dark sides have focused on cyberbullying ([Teng and Varathan, 2023](#)) and sexual solicitation ([McHugh et al., 2018](#)), digital voyeurism and exhibitionism ([Mantymaki and Islam, 2016](#)), data privacy concerns ([Markos et al., 2017](#)), trolling ([Dineva and Breitsohl, 2022](#)), body image and well-being ([Chatzopoulou et al., 2020](#)), identity theft ([Ma et al., 2021](#)), fear of missing out ([Bright and Logan, 2018](#)), mobile technology overload in the workplace ([Yin et al., 2018](#)), impacts on job performance ([Fakhfakh and Bouaziz, 2023](#)), and mental health ([Allcott et al., 2020](#)).

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One potential dark side of customer engagement (CE) with SM is impulsive buying ([Lo et al., 2022](#)). [Beatty and Elizabeth Ferrell \(1998, p. 170\)](#) define impulsive buying as “a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfill a specific buying task. The behavior occurs after experiencing an urge to buy, and it tends to be spontaneous and without much reflection (i.e., impulsive)”. [Bankrate \(2022\)](#) documented that half of American consumers made an impulsive purchase from a product they were engaged with on its SM page, and that 63% of US purchases on SM were unplanned. Previous studies on the antecedents of impulsive buying on SM investigate the role of SM influencers ([Zafar et al., 2020](#)), social capital ([Huang, 2016](#)), pleasure and arousal ([Djafarova and Bowes, 2021](#)), online reviews ([Zhang et al., 2018](#)), and benign envy ([Van Tran et al., 2022](#)). While much research focuses on the positive aspects of CE on SM, less attention has been paid to the potential negative psychological impacts that such engagement can have on individuals ([Salo et al., 2018](#)), or its dark side (please refer to Table A1 in the appendix for a detailed literature review). This gap is particularly important in the context of luxury brands, where the aspirational nature of SM content can lead to more pronounced psychological effects. Previous studies highlighted the benefits of customer engagement with luxury brands on SM ([Pentina et al., 2018](#)), yet few explore how this engagement might also contribute to adverse outcomes, such as self-esteem, materialism, and, notably, impulsive buying behavior. Understanding the negative impacts of consumer engagement is important, especially as SM plays an increasingly central role in consumer-brand engagement and well-being ([Creevey et al., 2021](#); [McCarthy et al., 2023](#)).

Customer engagement on SM can affect individuals’ self-esteem ([Chatzopoulou et al., 2020](#)). Luxury brands, by promoting glamorous lifestyles, opulent possessions, and exclusive

experiences, create an aspirational image that is often unattainable for most individuals ([Cannon and Rucker, 2019](#)). The constant exposure to unattainable standards can breed feelings of inadequacy, envy, a sense of inferiority, depression, and social discrepancy ([Cavusoglu and Atik, 2023](#); [Appel et al., 2016](#)), impacting self-esteem and fostering impulsive buying to reduce the gap with their connections' luxurious lifestyle. Luxury brands on SM, such as Louis Vuitton, see significantly higher engagement rates compared to other industries ([Harrison, 2024](#)). Thus, this research aims to address two research questions, namely RQ1: *What are the negative psychological and behavioral impacts of customer engagement with luxury brands on SM, and how do these impacts manifest through self-esteem, materialism, technology addiction, and impulsive buying behavior?* And RQ2: *How do these consequences vary by gender?*

We investigate the potential dark sides of CE with luxury brands on SM, specifically focusing on how this engagement influences negative psychological states, such as reduced self-esteem, heightened materialism, and increased technology addiction, and how these factors contribute to impulsive buying behavior. Recognizing the negative impacts of CE with brands on SM is of utmost importance to understand the dark sides of digital marketing ([Pechmann et al., 2011](#)), adjust marketing strategies, and devise corrective interventions. Theoretically, this paper contributes to the Customer Engagement (CE) literature ([Hollebeek et al., 2019](#); [Hollebeek et al., 2023](#)) and to the Self-Discrepancy theory ([Higgins, 1987](#)) by showing that engagement with luxury brands on social media can activate self-discrepancies that reduce self-esteem and increase materialism, social media addiction, and impulsive buying. The study offers practical implications for SM managers and luxury brand managers.

Theoretical Foundations and Hypotheses Development

Customer Engagement (CE) via Social Media (SM)

The theoretical roots of CE can be identified in the service-dominant logic and relationship marketing ([Hollebeek et al., 2019](#); [Vargo and Lusch, 2017](#)). CE via SM has become a pivotal area of research and practice in digital marketing ([Hollebeek and Macky, 2019](#)). CE is defined as “a consumer's positively valenced brand-related cognitive, emotional, and behavioral activity during or related to focal consumer/brand interactions” ([Hollebeek et al., 2014, p. 154](#)). Platforms like Instagram or TikTok, with their emphasis on visual content, are particularly engaging ([Filieri et al., 2021](#)). This type of engagement is not merely about selling products but building a luxury lifestyle and community that some consumers can be a part of ([Bazi et al., 2020](#)).

However, CE with luxury brands on SM is a double-edged sword. On the one hand, it can significantly enhance brand loyalty and love ([Bazi et al., 2023](#)). Engaged customers are more likely to develop an emotional connection with the brand, which can lead to repeated purchases and strong brand advocacy ([Purohit et al., 2024](#)). On the other hand, the nature of SM can also lead to negative psychological effects ([Salo et al., 2018](#)). For example, customers who frequently engage with luxury brands on SM are repeatedly exposed to idealized lifestyle representations that may heighten awareness of discrepancies between their actual and ideal selves, leading to feelings of inadequacy ([Michaelidou et al., 2022](#)).

Customer engagement and impulsive buying

[Beatty and Elizabeth Ferrell \(1998\)](#) define impulsive buying as “a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfill a specific buying task. The behavior occurs after experiencing an urge to buy, and it tends to be

spontaneous and without much reflection”. Impulsive buying denotes an absence of prior intention, consideration, or desire to shop ([Suher and Hoyer, 2020](#)) and is often triggered by feelings of inadequacy and the perceived need to manage or repair negative affect ([Lucas and Koff, 2017](#)). Impulsive buying can have both positive (i.e., excitement, pleasure, and joy) and negative outcomes (i.e., a sense of regret or guilt), mainly depending on individuals’ personality ([Verplanken and Herabadi, 2001](#)).

CE includes three dimensions: cognitive (e.g., attention, information processing), emotional (e.g., affective), and behavioral (e.g., participation in brand activities, co-creation) ([Hollebeek et al., 2014](#)). Nowadays, SM is a key touch-point for brand engagement, especially for luxury brands ([Bazi et al., 2020](#)). For instance, [Bazi et al. \(2020\)](#) identified thirteen motivations, grouped into six dimensions, including content relevancy, brand-customer relationship, hedonic and aesthetic factors, socio-psychological influences, brand equity, and technology factors. Luxury goods buyers use SM to display possessions, signifying luxury experiences, power, and social connections ([Michaelidou et al., 2022](#)). [Wallace et al. \(2020\)](#) found that self-esteem is an important factor influencing perceived congruence between an individual’s perceived self and luxury fashion brands mentioned on Facebook.

Luxury brands, renowned for their status and exclusivity, often showcase extravagant lifestyles, opulent possessions, and glamorous experiences on SM ([Michaelidou et al., 2022](#)). When engaging with these brands, luxury consumers are exposed to a constant stream of aspirational content that sets high standards for beauty, success, and social desirability. Through social comparison processes, individuals may evaluate their own lives and self-worth based on the images and narratives of luxury brands and other users. When customers engage with luxury brands on SM, they are exposed to content showcasing aspirational products and lifestyles ([Bazi](#)

[et al., 2020](#)). This engagement goes beyond viewing and involves interacting with luxury brand content, through liking, commenting, and sharing ([Pentina et al., 2018](#)). We hypothesize that the real-time nature of SM means customers are immediately aware of luxury products, potentially increasing their tendency to make quick, unplanned purchases. Thus, we hypothesize that:

H1: Customer engagement with luxury brands on SM positively affects impulsive buying.

Self-esteem

Self-esteem is “a positive or negative attitude toward a particular object, namely, the self” ([Rosenberg, 1965, p. 30](#)), and refers to an individual’s judgment of their value, which develops early in life and begins to solidify in adolescence ([Savin-Williams and Jaquish, 1981](#)). From a cognitive-behavioral standpoint, [Young et al. \(2006\)](#) propose viewing one's self-esteem as a schema comprising multiple components, including one's thoughts, feelings, and experiences. Individuals with high self-esteem typically hold positive notions of themselves, feeling capable and comfortable expressing their thoughts. In contrast, those with low self-esteem tend to be self-critical, often feeling worthless or inadequate ([Rosenberg et al., 1989](#)).

Luxury goods serve as status and achievement symbols, enabling individuals to signal their social standing and success ([Dion and Borraz, 2017](#)), while SM allows users to maintain or enhance their positive self-concept ([Bazi et al., 2020](#)). Customers tend to use luxury products as a means of self-expression, enhancing their self-image and signaling their social status on SM ([Siepmann et al., 2022](#)).

Self-Discrepancy Theory (SDT) ([Higgins, 1987](#)) provides a framework for understanding how varying disparities between self-state representations affect individuals’ emotions and motivations. SDT proposes that individuals constantly compare their actual self to the ideal self (attributes one aspires to possess) and the ought self (attributes one believes they should possess)

([Higgins, 1987](#)). Discrepancies between the actual self and the ideal or ought self can lead to distinct emotional and motivational outcomes ([Higgins, 1987](#)). When individuals perceive a significant discrepancy between their actual and ideal selves, it can impact their self-esteem. Luxury brands, with their allure of exclusivity and hedonic appeal, may be particularly enticing for individuals who seek to enhance their self-esteem ([Wang et al., 2022](#)). SM platforms provide a constant stream of curated content and persuasive marketing messages ([Noguti, 2022](#)), which can further trigger impulsive buying tendencies among individuals with high self-esteem ([Van Tran et al., 2022](#)). Impulsive buying can serve as a form of mood repair, where individuals attempt to alleviate negative self-feelings through immediate purchase gratification ([Redine et al., 2023](#)).

The mediating role of self-esteem becomes evident in how it influences subsequent behavior, particularly impulsive buying. Individuals, driven by the need to enhance or maintain their self-esteem, may engage in purchasing luxury items. We propose that CE with luxury brands on SM impacts self-esteem by activating self-discrepancies between consumers' actual selves and the idealized brand representations, which in turn increases impulsive buying behavior. Grounded in SDT ([Higgins, 1987](#)), this mediation mechanism suggests that exposure to unattainable luxury ideals makes salient the gap between one's current and aspirational self, triggering temporary influences in self-evaluation that motivate compensatory consumption. We focus specifically on these situational fluctuations in self-worth as the mediating pathway, consistent with research showing state self-esteem's responsiveness to self-relevant stimuli ([Heatherton and Polivy, 1991](#)) and its role in driving impulsive purchases. Thus, we hypothesize that:

H2: Self-esteem mediates the relationship between customer engagement with luxury brands on SM and impulsive buying

Materialism

Materialism refers to “the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states” ([Richins and Dawson, 1992, p. 307](#)). Materialism is an entrenched characteristic globally, manifesting itself in various ways in consumer behavior ([Belk, 1985](#)). [Belk \(1985\)](#) describes it as the relevance that consumers place on worldly possessions. Materialistic individuals generate satisfaction from some material possessions, which they consider having a central place in their lives. On SM, individuals may showcase their luxurious possessions, experiences, or lifestyles to communicate their status and gain admiration and validation from others ([Bazi et al., 2020](#)). Showcasing materialistic possessions stems from a desire to be perceived as superior or successful in comparison to peers.

Materialism is a major driver of consumer behavior within SM settings ([Belk et al., 2022](#)). SDT can be useful in explaining our arguments ([Higgins, 1987](#)). When engaging with luxury brands on SM, consumers are exposed to representations of an ideal self that owns and uses these luxury items. They observe others showcasing their luxuries, exotic vacations, and extravagant experiences, creating a standard of material abundance and desirability ([Kirkpatrick and Lee, 2022](#)). This constant exposure to such aspirational content may develop a sense of social discrepancy, widening the gap between one's actual self (current lifestyle and possessions) and the ideal self (lifestyle portrayed through a luxury brand). The discrepancy between actual and ideal selves can lead to emotional discomfort, typically manifesting as dejection-related emotions like disappointment or dissatisfaction ([Higgins, 1987](#)). To reduce this discomfort, individuals may turn to materialistic behaviors as a means of bridging the perceived gap, which

can trigger a desire to acquire similar luxury goods and engage in conspicuous consumption ([Michaelidou et al., 2022](#)). Customers may experience an increased desire for material possessions and a heightened focus on materialistic objectives ([Mainolfi, 2020](#)). Materialism becomes a coping mechanism to get one's actual self closer to the ideal self portrayed by a luxury brand on SM. The desire to quickly reduce self-discrepancy can lead to impulsive buying behaviors, that is, impulsive purchases of luxury items to immediately feel closer to their ideal self, even if these purchases are not carefully planned or budgeted for. Thus, we hypothesize that:

H3: Materialism mediates the relationship between customer engagement with luxury brands on SM and impulsive buying.

SM addiction

SM addiction refers to “being overly concerned about SM, strongly motivated and devoting a great amount of time and energy to use SM, to the degree that an individual's social activities, interpersonal relationships, studies/jobs, and/or health and well-being are impaired” ([Sun and Zhang, 2021, p. 2](#)). SM addiction represents a “psychological state of maladaptive dependency on the use of a technology” ([Turel et al., 2011, p. 1044](#)), which negatively impacts individuals' well-being ([Raggiotto et al., 2023](#)).

SM platforms, with their constant accessibility and engaging features like infinite scrolling and push notifications, create an environment where users are continually exposed to idealized representations of others' lives. This constant exposure can heighten awareness of discrepancies between one's actual self and their ideal or ought self. SDT can help understand the relationship between SM addiction, luxury brand engagement, and impulsive buying.

Accordingly, SM can be addictive as users seek social validation, approval, and acceptance from others ([Miranda et al., 2023](#)). This pursuit of the ideal self not only fuels SM addiction but also contributes to impulsive buying behavior, particularly for luxury items. Exposure to influencers and peers flaunting luxury products creates a vivid representation of an ideal self, inducing FOMO and leading individuals to make impulsive purchases to meet perceived social standards ([Tandon et al., 2021](#); [Jung and Dubois, 2023](#)). This behavior aligns with attempts to reduce the gap between one's actual self and the idealized version of success and status portrayed online.

Luxury brands exploit this psychological vulnerability by leveraging advanced algorithms to target consumers with personalized product recommendations and persuasive advertisements ([Rahman et al., 2023](#)). These marketing strategies tap into users' desire to align their actual self with their ideal self, presenting luxury items as a means to bridge that gap. The ease of browsing and purchasing through SM, along with mobile shopping convenience, lowers barriers to impulsive buying ([Hu et al., 2019](#)).

This cycle of FOMO and the pursuit of an idealized self fuels SM addiction as well as impulsive buying behavior. SM addiction promotes instant gratification and a culture of immediate rewards ([Gong et al., 2021](#)), which aligns with the desire for quick resolutions to self-discrepancies. The pursuit of social recognition and FOMO further exacerbates addictive behaviors on SM ([Bright and Logan, 2018](#)), as users continually seek to narrow the gap between their actual and ideal selves.

In this way, SM addiction acts as a mediator between CE with luxury brands and impulsive buying. Engagement with luxury brands on SM stimulates greater concern with SM and exposure to ideal self representations, which increases the likelihood of impulsive purchases as individuals strive to reduce perceived self-discrepancies. Individuals may turn to impulsive

buying of luxury items as a coping mechanism to distract from the discomfort caused by perceived self-discrepancies or to find momentary pleasure in acquiring items that bring them closer to their ideal self. Thus, we hypothesize that:

H4: SM addiction mediates the relationship between customer engagement with luxury brands on SM and impulsive buying.

-Insert Figure 1 here-

Methodology

The study population consisted of customers (not consumers) of luxury brands based in the United Kingdom (UK) who regularly interacted and engaged with luxury brands on SM platforms. The sample was recruited through Prolific, which is a well-established research participant recruitment organization widely used in academic research.

The data collection procedure included screening questions and numerous quality checks. First, to ensure the accuracy of the data, we restricted the sample to those who had recently used, purchased from and had previous experience with luxury brands, and engaged with these luxury brands on SM platforms. For this, we used two filters: respondents had to name the specific luxury brand they had purchased and followed on SM platform(s), followed by naming the SM platform(s) where they engage with the named luxury brand. Attention checks were included in the survey, and responses with more than 15 percent incomplete answers were excluded. Responses completed in less than 1.5 minutes were also excluded to ensure data reliability.

After applying the sample screening criteria, there were 5,024 eligible participants in Prolific's population pool, and 1,200 participants submitted their responses. Following quality control checks, 248 participants were excluded because they had not purchased a luxury brand or

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3 did not complete the questionnaire to an acceptable standard. Hence, a total of 1,076 responses
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5 were used for data analysis. Table 1 presents the demographics of the sample.
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10 ***Measures***
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12 The survey consisted of three sections. The first section contained screening questions.
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14 The second section included the measurement items for the constructs of the study, followed by
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16 the demographic questions in the final section. All measurement items for the constructs were
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18 derived from previous research. Customer engagement (CE) with luxury brands was adapted
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20 from [Hollebeek et al. \(2014\)](#). The scale used to measure the self-esteem (SES) construct was
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22 derived from Rosenberg (1965) and used by Malär et al. (2011). For materialism (MAT), we
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24 adapted the scale of [Kapferer and Valette-Florence \(2019\)](#). Nine items were used to measure SM
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26 addiction (SMADD), adapted from [Turel et al. \(2011\)](#). Finally, the measurement for impulsive
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28 buying (IMPB) was adapted from [Rook and Fisher \(1995\)](#). A seven-point Likert scale was
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30 employed for each measurement item, ranging from 1 (strongly disagree) to 7 (strongly agree).
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35 ***Data analysis***
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37 Covariance-based Structural Equation Modeling (CB-SEM) is a robust statistical
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39 technique that offers several advantages for analyzing complex relationships, with its capacity
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41 for the simultaneous examination of multiple variables, enabling the exploration of intricate
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43 phenomena ([Bagozzi, 1981](#)). Its flexibility in specifying and testing models accommodates
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45 measurement and structural considerations, while accounting for measurement error through
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47 latent constructs enhances accuracy ([Bagozzi and Yi, 1988](#)). CB-SEM’s fit indices facilitate
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49 model evaluation and refinement ([Mulaik et al., 1989](#)). CB-SEM supports rigorous hypothesis
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51 testing, estimating significance and effects within the model, and model comparison tools aid in
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selecting the best model ([Bagozzi and Yi, 2012](#)). We used the AMOS V.26 program to analyze the data in this study. First, we undertook Confirmatory Factor Analysis (CFA).

Validity tests and common method bias

We assessed the measurement model by examining indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. The factor-indicator loadings of all items exceeded the cutoff value of 0.708, except for six items from customer brand engagement, five items from self-esteem (reverse-coded items were retained), two items from materialism, and one from impulsive buying. The findings support the reliability of the constructs ([Dijkstra and Henseler, 2015](#)).

Next, we evaluated convergent validity by calculating the Average Variance Extracted (AVE). An AVE value greater than 0.50 means adequate convergent validity of the construct. Table 2 illustrates the internal consistency, reliability, and convergent validity results. Model fit indices appear appropriate, as all measures were acceptable. The normed χ^2 is 3.921, RMSEA is 0.0520, SRMR is 0.0450, NFI is 0.9430, TLI is 0.9520, CFI is 0.9570, GFI is 0.9185, and AGFI is 0.9071. All the model fit values can be classified as excellent. See Tables A2 and A3 (Appendix) for the measurement models for both genders. All the measurement model results met the assessment criteria for each gender.

-Insert Table 2 here-

To assess discriminant validity, we compared item loadings with item cross-loadings and examined the variance extracted from the construct against the shared variance. The items satisfy the first requirement because they weighed more heavily (>0.70) on the intended structure. Table 3 illustrates the results of factor-item cross-loadings. Table A5 in the Appendix illustrates the factor-item cross-loadings for both genders. When each indicator is significantly weighted in

relation to the construct it measures, discriminant validity is demonstrated. In accordance with the results of the Heterotrait-Monotrait (HTMT) criteria evaluations, all of the constructs have HTMT ratios less than the 0.85 threshold value ([Henseler et al., 2015](#)). Table 4 presents the results for discriminant validity. The HTMT assessment indicates that no correlation between two constructs exceeds 0.85. Therefore, discriminant validity is established. Moreover, discriminant validity was established for both women and men, as illustrated in Tables A6 and A7 in the Appendix. Figure A1 in the Appendix presents the CFA results. Measurement invariance analysis is explained in the Appendix (Tables A2 to A4).

-Insert Tables 3 and 4 here-

The dataset was statistically analyzed for common method variance. Harman’s single-factor test was performed. Additionally, the correlation matrix was examined for common-method bias. The results demonstrated that no single factor accounted for more than 50% of the covariance among the measurements, so the use of a standardized method is not problematic ([Podsakoff et al., 2003](#)). In line with the discriminant validity analysis (see Table 5), the correlations between the constructs were not particularly high. Variance Inflation Factor (VIF) analysis revealed that all VIF values were less than 5. Consequently, the model does not have a common bias. The assessments of convergent validity, construct reliability, indicator reliability, discriminant validity, and the common method bias indicate the robustness of the data and analysis.

Co-Variance based Structural Equation Model

After ensuring the validity and reliability of the measurement model, the structural model was examined through AMOS 26. First, structural model collinearity (VIF) was examined and, as indicated in Table 5, no collinearity issues were identified because all values were lower than

the threshold value of 5 ([Hair et al., 2019](#)). To verify the hypotheses in Figure 1, the model was assessed via 5,000 subsamples using the bootstrapping procedure. Model fit indices indicated that the model is appropriate (normed $\chi^2 = 4.754$, RMSEA = 0.0590, SRMR = 0.0607, NFI = 0.9300, TLI = 0.9380, CFI = 0.9400, GFI = 0.9086, and AGFI = 0.9013) ([Hu and Bentler, 1999](#)).

Table 5 presents the results for path relationships, addressing RQ1. The analysis shows that the structural model (*R-square*) explains 3.10 percent of self-esteem, 11.20 percent of materialism, 5.49 percent of technology addiction, and 19.48 percent of impulsive buying. Figure 2 graphically presents the results of the model. The results displayed in Tables 5 and 6 reveal that CE with luxury brands significantly and positively influences self-esteem (H2a: $\beta = 0.2708^{***}$, $t\text{-value} = 5.4250$), materialism (H3a: $\beta = 0.4410^{***}$, $t\text{-value} = 9.1090$), and SM addiction (H4a: $\beta = 0.2220^{***}$, $t\text{-value} = 4.3330$). The total effect of CE on impulsive buying is also supported (H1: $\beta = 0.1960^{***}$, $t\text{-value} = 5.6271$). Table 6 supports the indirect effect for each mediation hypothesis (H2: $\beta = 0.0170^{**}$, $t\text{-value} = 2.1517$; H3: $\beta = 0.0620^{***}$, $t\text{-value} = 4.1017$; H4: $\beta = 0.0520^{***}$, $t\text{-value} = 3.8068$, supporting H2, H3, and H4). Self-esteem, materialism, and SM addiction are complementary mediators.

-Insert Tables 5 and 6 here-

-Insert Figure 2 here-

Post hoc analysis: Multi-group analysis results

Tables A8 to A15 in the Appendix present the findings of the post hoc analysis through a multi-group analysis, which addresses RQ2. Women differed from men in terms of the impact of self-esteem and materialism on impulsive buying. The path coefficients for these two relationships were not significant ($p < 0.6820$ and $p < 0.2232$, respectively). In contrast, for men,

self-esteem and materialism significantly influenced impulsive buying. Among women, luxury brand engagement did not significantly impact SM addiction.

Discussion

This study contributes to the growing literature on the dark side of social media (SM) platforms ([Dhir et al., 2021](#); [Baccarella et al., 2018](#); [Salo et al., 2018](#); [Cho et al., 2023](#)) and, more specifically, on the dark side of customer engagement (CE) with social media platforms ([Chatzopoulou et al., 2020](#); [Siu et al., 2023](#)). The current study hypothesizes that CE with luxury brands on SM leads to impulsive buying via self-esteem, materialism, and SM addiction. We find supporting evidence for all three hypotheses. Materialism is the most impacted variable, followed by SM addiction and self-esteem. Higher levels of self-esteem, materialism, and SM addiction are positively associated with impulsive buying behavior. Consequently, engagement with luxury brands on SM stimulates unplanned purchases through its effects on self-esteem, materialism, and SM addiction.

Luxury customers who actively engage with luxury brands on SM develop a heightened focus on materialistic values ([Nguyen et al., 2023](#)). Constant engagement with idealized lifestyles can fuel the desire for material possessions ([Burns et al., 2019](#)). Luxury brands, renowned for their status and exclusivity, often showcase extravagant lifestyles and opulent possessions on SM ([Bazi et al., 2020](#); [Michaelidou et al., 2022](#)). This exposure to luxurious imagery creates a standard of material abundance and desirability. As a result, individuals may engage in impulsive buying, seeking status, recognition, and validation.

Further extending the literature on the outcomes of CE, the study supports the notion that customer engagement with luxury brands on SM significantly impacts individuals' self-esteem.

Our results indicate that greater engagement with luxury brands on social media is associated with reduced state self-esteem, consistent with the activation of self-discrepancies ([Higgins, 1987](#)).

Luxury brand content typically showcases idealized lifestyles, bodies, and consumption patterns that are unattainable for most users. As individuals repeatedly interact with and consume this aspirational imagery, engagement heightens attention to the gap between their actual self and the idealized selves portrayed online. This persistent upward comparison activates self-discrepancies, leading to feelings of inadequacy and diminished self-worth.

The study identifies important gender differences, with self-esteem and materialism not influencing impulsive buying for women, but significantly predicting impulsive buying in men. This result suggests that for men, luxury brand engagement on social media may activate status-related concerns and pressures to display material success, making self-esteem and materialistic values more central drivers of unplanned purchases. Traditionally, men were viewed as less susceptible than women to self-esteem threats in consumer contexts ([Dittmar et al., 1996](#)), but this assumption appears increasingly outdated. Recent evidence suggests that men, especially young male SM users, are increasingly vulnerable to self-esteem concerns ([Chatzopoulou et al., 2020](#)) and pressures to portray material success ([Boursier et al., 2020](#)), which drives impulsive buying.

Furthermore, our results show that customer engagement with luxury brands on social media significantly increases SM addiction. Highly engaged consumers repeatedly like, comment on, and share luxury content, and follow brand stories and influencers to stay updated on new collections and status-related cues. Over time, these frequent interactions and the intermittent rewards of likes, comments, and new content can foster a compulsive need to check

platforms, consistent with prior research that links positive social reinforcement on SM to reduced well-being ([Chatzopoulou et al., 2020](#)). In the luxury context, the aspirational nature of the content likely amplifies this process. Thus, our findings extend the dark-side literature by showing that high levels of customer engagement with luxury brands are not only desirable from a marketing perspective but can also contribute to maladaptive, addictive patterns of social media use.

Finally, engagement with luxury brands on social media increases impulsive buying behavior through its effects on materialism, self-esteem, and SM addiction. Highly engaged customers become more focused on material possessions and experience reductions in state self-esteem as they are repeatedly exposed to idealized luxury goods and lifestyles that highlight gaps between their actual and ideal selves. To cope with these feelings of inadequacy, they are more likely to make spontaneous, unplanned purchases. At the same time, the compulsive use of social media fostered by SM addiction keeps consumers continuously connected to luxury content and purchase opportunities, further amplifying these tendencies. The convenience and instant gratification offered by SM platforms facilitate impulsive buying behaviors ([Luo et al., 2024](#)).

Theoretical contributions

This research makes significant contributions to the emerging concept of CE ([Hollebeek et al., 2020](#); [Kumar et al., 2025](#)) and SDT ([Higgins, 1987](#)) by exploring the often-overlooked negative outcomes associated with brand engagement. First, much of the existing literature focuses on the positive aspects of CE for marketers, such as increased brand loyalty and customer satisfaction ([Hollebeek et al., 2020](#); [de Oliveira Santini et al., 2020](#); [Bazi et al., 2023](#); [Yesiloglu et al., 2021](#)), and we respond to marketing and IS scholars’ calls for more research on

the dark sides of SM ([Salo et al., 2018](#)). Specifically, [Hollebeek and Belk \(2021, p. 397\)](#) call for research on negatively valenced consumers' technology-facilitated brand engagement. Similarly, [Santos et al. \(2022\)](#) urge future research to investigate the (negative) consequences of CE with brands via SM. In keeping with these calls, this study shifts the focus to the "dark side" of CE. By investigating how CE can lead to adverse psychological and behavioral outcomes, including heightened materialism and compulsive buying behaviors, we fill a crucial gap in the literature, as ([Feddema et al., 2021](#)) recommended. This aligns with an emerging body of work that seeks a more balanced understanding of CE, acknowledging its potential downsides. While some scholars ([Roy et al., 2023](#); [Junaid et al., 2019](#)) argue that CE increases customers' well-being, this study demonstrates that CE with brands on SM can generate negative psychological and behavioral effects. By focusing on these adverse effects, our research addresses the gap in the academic literature, offering a more comprehensive and nuanced understanding of CE's potential consequences.

Second, this study advances SDT ([Higgins, 1987](#)) by demonstrating how engagement with luxury brands on SM highlights self-discrepancies, leading to negative psychological outcomes and impulsive buying behavior. While SDT traditionally explores emotional discomforts, such as guilt or anxiety ([Higgins, 1987](#)), our findings extend this theory by identifying impulsive luxury consumption as a coping mechanism for self-discrepancies. This builds on recent work on the role of self-discrepancies in conspicuous consumption ([Bharti et al., 2022](#)). Additionally, our findings demonstrate that SM addiction functions as both an outcome of luxury brand engagement and a reinforcing factor in impulsive buying behavior. The compulsive nature of SM addiction further activates the self-discrepancy processes that drive consumption ([Andreassen et al., 2017](#)). This suggests a cyclical relationship where engagement fuels

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addiction, and addiction in turn amplifies the psychological mechanisms underlying impulsive purchases ([Andreassen et al., 2017](#)). Furthermore, our study is among the first initiatives to study gender differences in luxury brand engagement. We uncover significant gender differences, with self-discrepancy and materialism impacting impulsive buying more strongly among men. This finding contributes to the growing body of literature on gender differences in impulsive buying ([Tifferet and Herstein, 2012](#)) and extends previous research on gender-specific patterns in luxury consumption ([Stokburger-Sauer and Teichmann, 2013](#)).

Third, in our study, self-esteem, materialism, and SM addiction are examined as dark factors due to their potential to lead to harmful psychological and behavioral outcomes. [Durante and Laran \(2016\)](#) found that when customers feel stressed, they spend impulsively. Similarly, we found that engaging with luxury brands on SM can lead to impulsive buying, mediated by self-esteem, materialism, and SM addiction. Materialism, which has a well-established dark side ([Ruvio et al., 2014](#)), is primed by the persistent promotion of luxury products on SM, where these goods are often portrayed as essential to achieving happiness and success. This focus on material acquisition can lead customers to prioritize the purchase of luxury items over more meaningful aspects of life, resulting in impulsive buying behaviors and ultimately, a distorted sense of personal fulfillment ([Feddema et al., 2021](#)). Additionally, SM addiction emerges as a critical dark factor, as it fosters a cycle of compulsive engagement with social platforms that perpetuates these harmful behaviors. Customers who are addicted to SM are more likely to engage in impulsive buying and experience heightened stress and decreased mental well-being due to the constant need for validation and the pressure to keep up with the idolized lifestyles promoted by luxury brands ([Okazaki et al., 2021](#)). Together, these factors contribute to a darker

side of CE that has profound implications for consumer behavior and mental health, highlighting the need for a more balanced understanding of digital interactions with luxury brands.

Finally, this research contributes to the literature on the dark side of SM by studying the effect of CE on self-esteem, materialism, and SM addiction. While, to the best of our knowledge, no previous studies have investigated such relationships, some have identified the negative effects of SM on the equity of luxury brands. For instance, [Park et al. \(2020\)](#) found that SM marketing can dilute the value of a luxury brand, while others found that negative customer comments on SM can lead to brand hate ([Pantano, 2021](#)). By investigating the negative outcomes of CE, such as impulsive buying, materialism, and SM addiction, this research expands our understanding of the potential downsides of CE with luxury brands

Managerial implications

Our research offers key insights for marketing managers, policymakers, and luxury brand professionals. First, our study highlights the need for more thoughtful and responsible CE strategies to protect long-term brand equity and the well-being of customers. Marketing managers should recognize that customers with lower self-esteem or higher materialistic tendencies are more vulnerable to impulsive buying behaviors. Consequently, brands should focus on creating marketing campaigns that emphasize value, quality, and long-term satisfaction rather than just status or luxury. By moving away from superficial, status-driven messaging and instead offering content that is more meaningful, brands can help prevent the negative psychological effects that such engagement might trigger, encouraging healthier consumer behaviors and fostering more sustainable, long-term relationships.

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Second, the research generates insights for policymakers, who should be concerned about protecting customers from the potential downsides of SM engagement. Appropriate responses could include implementing regulations that ensure transparency and truthful claims in SM advertising, particularly in influencer marketing campaigns and sponsored content. Additionally, digital literacy initiatives can empower customers to recognize and resist manipulative marketing practices, leading to better decision-making and improved well-being. Such policy measures could contribute to a safer digital environment, helping to reduce the risks associated with impulsive buying and SM addiction.

Lastly, luxury brands should explore partnerships with SM platforms and mental health organizations to promote responsible SM use. For example, developing digital well-being tools like usage reminders, content moderation features, and educational resources on the psychological effects of SM can help customers manage their engagement more effectively. Not only do these initiatives support customers’ well-being, but they can also enhance a brand’s image as socially responsible. This approach may foster stronger customer loyalty and long-term brand equity by aligning business practices with the growing customer demand for ethical and responsible behavior from brands.

Limitations and future research

This study has limitations that can inform future research. Firstly, although our sample was large (1,076 respondents), we employed a cross-sectional survey design. Longitudinal or experimental designs could provide more robust evidence of relationships over time and offer insights regarding causal mechanisms. The study relied solely on survey data, which may not capture the complexity and dynamics of SM engagement and impulsive buying behavior

comprehensively. Incorporating multiple data sources, such as behavioral observations or qualitative interviews, could provide a richer understanding of the phenomenon. Moreover, the study relied on a specific sample of adult SM users from the UK, which may limit the generalizability of the findings to other populations or cultural contexts. Future research could consider diverse samples from countries with different cultural characteristics (i.e., China, Russia, India, and Italy) to enhance the external validity of the findings. Finally, future research could explore other potential dark side outcomes of customer brand engagement, such as loss of authenticity and identity, loneliness, as well as time and productivity loss.

References

- Allcott, H., Braghieri, L., Eichmeyer, S. and Gentzkow, M. (2020), "The welfare effects of social media", *American Economic Review*, Vol. 110 No.3, pp. 629-76, doi: <https://10.1257/aer.20190658>
- Andreassen, C.S., Pallesen, S. and Griffiths, M.D. (2017), "The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey", *Addictive Behaviors*, Vol. 64, pp. 287-293, doi: <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Appel, H., Gerlach, A.L. and Crusius, J. (2016), "The interplay between facebook use, social comparison, envy, and depression", *Current Opinion in Psychology*, Vol. 9, pp. 44-49, doi: <https://doi.org/10.1016/j.copsyc.2015.10.006>
- Baccarella, C.V., Wagner, T.F., Kietzmann, J.H. and McCarthy, I.P. (2018), "Social media? It's serious ! Understanding the dark side of social media", *European Management Journal*, Vol. 36 No.4, pp. 431-438, doi: <https://10.1016/j.emj.2018.07.002>
- Bagozzi, R.P. (1981), "Evaluating structural equation models with unobservable variables and measurement error - a comment", *Journal of Marketing Research*, Vol. 18 No.3, pp. 375-381, doi: <https://doi.org/10.2307/3150979>
- Bagozzi, R.P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No.1, pp. 74-94, doi: <https://10.1007/bf02723327>
- Bagozzi, R.P. and Yi, Y. (2012), "Specification, evaluation, and interpretation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 40 No.1, pp. 8-34, doi: <https://10.1007/s11747-011-0278-x>
- Bankrate (2022), *Americans are making regretted impulse buys on social media — why it's a challenging time with surging inflation*: Bankrate, available at:

<https://www.bankrate.com/banking/federal-reserve/americans-regret-social-media-impulse-buys/>
(Accessed: 25 August 2025).

Bazi, S., Filieri, R. and Gorton, M. (2020), "Customers' motivation to engage with luxury brands on social media", *Journal of Business Research*, Vol. 112, pp. 223-235, doi: <https://10.1016/j.jbusres.2020.02.032>

Bazi, S., Filieri, R. and Gorton, M. (2023), "Social media content aesthetic quality and customer engagement: The mediating role of entertainment and impacts on brand love and loyalty", *Journal of Business Research*, Vol. 160, pp. 113778, doi: <https://doi.org/10.1016/j.jbusres.2023.113778>

Beatty, S.E. and Elizabeth Ferrell, M. (1998), "Impulse buying: Modeling its precursors", *Journal of Retailing*, Vol. 74 No.2, pp. 169-191, doi: [https://doi.org/10.1016/S0022-4359\(99\)80092-X](https://doi.org/10.1016/S0022-4359(99)80092-X)

Belk, R., Humayun, M. and Brouard, M. (2022), "Money, possessions, and ownership in the metaverse: Nfts, cryptocurrencies, web3 and wild markets", *Journal of Business Research*, Vol. 153, pp. 198-205, doi: <https://10.1016/j.jbusres.2022.08.031>

Belk, R.W. (1985), "Materialism - trait aspects of living in the material world", *Journal of Consumer Research*, Vol. 12 No.3, pp. 265-280, doi: <https://doi.org/10.1086/208515>

Bharti, M., Suneja, V. and Bharti, M. (2022), "Mindfulness as an antidote to conspicuous consumption: The mediating roles of self-esteem, self-concept clarity and normative influence", *Personality and Individual Differences*, Vol. 184, pp. 111215, doi: <https://doi.org/10.1016/j.paid.2021.111215>

Boursier, V., Gioia, F. and Griffiths, M.D. (2020), "Do selfie-expectancies and social appearance anxiety predict adolescents' problematic social media use?", *Computers in Human Behavior*, Vol. 110, pp. 106395, doi: <https://doi.org/10.1016/j.chb.2020.106395>

Bright, L.F. and Logan, K. (2018), "Is my fear of missing out (fomo) causing fatigue? Advertising, social media fatigue, and the implications for consumers and brands", *Internet Research*, Vol. 28 No.5, pp. 1213-1227, doi: <https://10.1108/IntR-03-2017-0112>

Burns, D.J., Hutchins, J.D. and Mathisen, R. (2019), "Materialism and affect toward others: Influences on apparel consciousness", *Journal of Global Fashion Marketing*, Vol. 10 No.1, pp. 35-49, doi: <https://10.1080/20932685.2018.1550007>

Cannon, C. and Rucker, D.D. (2019), "The dark side of luxury: Social costs of luxury consumption", *Personality and Social Psychology Bulletin*, Vol. 45 No.5, pp. 767-779, doi: <https://10.1177/0146167218796790>

Cavusoglu, L. and Atik, D. (2023), "Extending the diversity conversation: Fashion consumption experiences of underrepresented and underserved women", *Journal of Consumer Affairs*, Vol. 57 No.1, pp. 387-417, doi: <https://doi.org/10.1111/joca.12504>

- Chatzopoulou, E., Filieri, R. and Dogruyol, S.A. (2020), "Instagram and body image: Motivation to conform to the “instabod” and consequences on young male wellbeing", *Journal of Consumer Affairs*, Vol. 54 No.4, pp. 1270-1297, doi: <https://doi.org/10.1111/joca.12329>
- Cho, H., Li, P., Ngien, A., Tan, M.G., Chen, A. and Nekmat, E. (2023), "The bright and dark sides of social media use during covid-19 lockdown: Contrasting social media effects through social liability vs. Social support", *Computers in Human Behavior*, Vol. 146, pp. 107795, doi: <https://doi.org/10.1016/j.chb.2023.107795>
- Creevey, D., Coughlan, J. and O'Connor, C. (2021), "Social media and luxury: A systematic literature review", *International Journal of Management Reviews*, Vol. 24 No.1, pp. 99-129, doi: <https://doi.org/10.1111/ijmr.12271>
- de Oliveira Santini, F., Ladeira, W.J., Pinto, D.C., Herter, M.M., Sampaio, C.H. and Babin, B.J. (2020), "Customer engagement in social media: A framework and meta-analysis", *Journal of the Academy of Marketing Science*, Vol. 48 No.6, pp. 1211-1228, doi: <https://doi.org/10.1007/s11747-020-00731-5>
- Dhir, A., Talwar, S., Kaur, P., Budhiraja, S. and Islam, N. (2021), "The dark side of social media: Stalking, online self-disclosure and problematic sleep", *International Journal of Consumer Studies*, Vol. 45 No.6, pp. 1373-1391, doi: <https://doi.org/10.1111/ijcs.12659>
- Dijkstra, T.K. and Henseler, J. (2015), "Consistent partial least squares path modeling", *MIS Quarterly*, Vol. 39 No.2, pp. 297-316, doi: <https://doi.org/10.25300/misq/2015/39.2.02>
- Dineva, D. and Breitsohl, J. (2022), "Managing trolling in online communities: An organizational perspective", *Internet Research*, Vol. 32 No.1, pp. 292-311, doi: <https://doi.org/10.1108/INTR-08-2020-0462>
- Dion, D. and Borraz, S. (2017), "Managing status: How luxury brands shape class subjectivities in the service encounter", *Journal of Marketing*, Vol. 81 No.5, pp. 67-85, doi: <https://doi.org/10.1509/jm.15.0291>
- Dittmar, H., Beattie, J. and Friese, S. (1996), "Objects, decision considerations and self-image in men's and women's impulse purchases", *Acta Psychologica*, Vol. 93 No.1, pp. 187-206, doi: [https://doi.org/10.1016/0001-6918\(96\)00019-4](https://doi.org/10.1016/0001-6918(96)00019-4)
- Djafarova, E. and Bowes, T. (2021), "“Instagram made me buy it’: Generation z impulse purchases in fashion industry", *Journal of Retailing and Consumer Services*, Vol. 59, pp. 102345, doi: <https://doi.org/10.1016/j.jretconser.2020.102345>
- Durante, K.M. and Laran, J. (2016), "The effect of stress on consumer saving and spending", *Journal of Marketing Research*, Vol. 53 No.5, pp. 814-828, doi: <https://doi.org/10.1509/jmr.15.0319>
- Fakhfakh, S.B. and Bouaziz, F. (2023), "Effects of sns overload and dissatisfaction on job performance and discontinuous usage intention", *Information Technology & People*, Vol. 36 No.2, pp. 808-833, doi: <https://doi.org/10.1108/itp-04-2021-0300>

Feddema, K., Harrigan, P. and Wang, S.S. (2021), "The dark side of social media engagement: An analysis of user-generated content in online wildlife trade", *Australasian Journal of Information Systems*, Vol. 25, pp. 35, doi: <https://10.3127/ajis.v25i0.2987>

Gong, X., Cheung, C.M.K., Zhang, K.Z.K., Chen, C. and Lee, M.K.O. (2021), "A dual-identity perspective of obsessive online social gaming", *Journal of the Association for Information Systems*, Vol. 22 No.5, pp. 1245-1284, doi: <https://10.17705/1jais.00693>

Guesalaga, R. (2016), "The use of social media in sales: Individual and organizational antecedents, and the role of customer engagement in social media", *Industrial Marketing Management*, Vol. 54, pp. 71-79, doi: <https://doi.org/10.1016/j.indmarman.2015.12.002>

Hair, J.F., Babin, B.J., Anderson, R.E. and Black, W.C. (2019), *Multivariate data analysis*. 8th edn. Hampshire: Cengage Learning EMEA.

Harrison, H. (2024), *What's working for the top luxury brands on social media: Rival IQ*, available at: <https://www.rivaliq.com/blog/top-luxury-brands-on-social-media/> (Accessed: 16 August 2024).

Heatherton, T.F. and Polivy, J. (1991), "Development and validation of a scale for measuring state self-esteem", *Journal of Personality and Social Psychology*, Vol. 60 No.6, pp. 895-910, doi: <https://10.1037/0022-3514.60.6.895>

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No.1, pp. 115-135, doi: <https://10.1007/s11747-014-0403-8>

Higgins, E.T. (1987), "Self-discrepancy: A theory relating self and affect", *Psychological Review*, Vol. 94 No.3, pp. 319-340, doi: <https://10.1037/0033-295X.94.3.319>

Hollebeek, L.D. and Belk, R. (2021), "Consumers' technology-facilitated brand engagement and wellbeing: Positivist tam/perma- vs. Consumer culture theory perspectives", *International Journal of Research in Marketing*, Vol. 38 No.2, pp. 387-401, doi: <https://doi.org/10.1016/j.ijresmar.2021.03.001>

Hollebeek, L.D., Glynn, M.S. and Brodie, R.J. (2014), "Consumer brand engagement in social media: Conceptualization, scale development and validation", *Journal of Interactive Marketing*, Vol. 28 No.2, pp. 149-165, doi: <https://10.1016/j.intmar.2013.12.002>

Hollebeek, L.D., Kulikovskaja, V., Hubert, M. and Grunert, K.G. (2023), "Exploring a customer engagement spillover effect on social media: The moderating role of customer conscientiousness", *Internet Research*, Vol. 33 No.4, pp. 1573-1596, doi: <https://10.1108/intr-08-2021-0619>

Hollebeek, L.D., Kumar, V. and Srivastava, R.K. (2020), "From customer-, to actor-, to stakeholder engagement: Taking stock, conceptualization, and future directions", *Journal of Service Research*, Vol. 25 No.2, pp. 328-343, doi: <https://10.1177/1094670520977680>

Hollebeek, L.D. and Macky, K. (2019), "Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications", *Journal of Interactive Marketing*, Vol. 45, pp. 27-41, doi: <https://10.1016/j.intmar.2018.07.003>

Hollebeek, L.D., Srivastava, R.K. and Chen, T. (2019), "S-d logic–informed customer engagement: Integrative framework, revised fundamental propositions, and application to crm", *Journal of the Academy of Marketing Science*, Vol. 47 No.1, pp. 161–185, doi: <https://10.1007/s11747-018-0605-6>

Hsu, C.-L. (2023), "Enhancing brand love, customer engagement, brand experience, and repurchase intention: Focusing on the role of gamification in mobile apps", *Decision Support Systems*, Vol., pp. 114020, doi: <https://doi.org/10.1016/j.dss.2023.114020>

Hu, L.T. and Bentler, P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", *Structural Equation Modeling-a Multidisciplinary Journal*, Vol. 6 No.1, pp. 1-55, doi: <https://10.1080/10705519909540118>

Hu, X., Chen, X. and Davison, R.M. (2019), "Social support, source credibility, social influence, and impulsive purchase behavior in social commerce", *International Journal of Electronic Commerce*, Vol. 23 No.3, pp. 297-327, doi: <https://10.1080/10864415.2019.1619905>

Huang, L.-T. (2016), "Flow and social capital theory in online impulse buying", *Journal of Business Research*, Vol. 69 No.6, pp. 2277-2283, doi: <https://doi.org/10.1016/j.jbusres.2015.12.042>

Junaid, M., Hussain, K., Basit, A. and Hou, F. (2019), "Nature of brand love: Examining its variable effect on engagement and well-being", *Journal of Brand Management*, Vol. 27 No.3, pp. 284-299, doi: <https://10.1057/s41262-019-00179-1>

Jung, S. and Dubois, D. (2023), "When and how slow motion makes products more luxurious", *Journal of Marketing Research*, Vol. 60 No.6, pp. 1177-1196, doi: <https://10.1177/00222437221146728>

Kapferer, J.N. and Valette-Florence, P. (2019), "How self-success drives luxury demand: An integrated model of luxury growth and country comparisons", *Journal of Business Research*, Vol. 102, pp. 273-287, doi: <https://10.1016/j.jbusres.2019.02.002>

Kirkpatrick, C.E. and Lee, S. (2022), "Comparisons to picture-perfect motherhood: How instagram's idealized portrayals of motherhood affect new mothers' well-being", *Computers in Human Behavior*, Vol. 137, pp. 107417, doi: <https://doi.org/10.1016/j.chb.2022.107417>

Kumar, V., D. Hollebeek, L., Sharma, A., Rajan, B. and K Srivastava, R. (2025), "Responsible stakeholder engagement marketing", *Journal of Business Research*, Vol. 189, pp. 115143, doi: <https://doi.org/10.1016/j.jbusres.2024.115143>

Lo, P.-S., Dwivedi, Y.K., Wei-Han Tan, G., Ooi, K.-B., Cheng-Xi Aw, E. and Metri, B. (2022), "Why do consumers buy impulsively during live streaming? A deep learning-based dual-stage

sem-ann analysis", *Journal of Business Research*, Vol. 147, pp. 325-337, doi:
<https://doi.org/10.1016/j.jbusres.2022.04.013>

Lucas, M. and Koff, E. (2017), "Body image, impulse buying, and the mediating role of negative affect", *Personality and Individual Differences*, Vol. 105, pp. 330-334, doi:
<https://doi.org/10.1016/j.paid.2016.10.004>

Luo, X., Cheah, J.-H., Hollebeek, L.D. and Lim, X.-J. (2024), "Boosting customers' impulsive buying tendency in live-streaming commerce: The role of customer engagement and deal proneness", *Journal of Retailing and Consumer Services*, Vol. 77, pp. 103644, doi:
<https://doi.org/10.1016/j.jretconser.2023.103644>

Ma, X., Qin, Y., Chen, Z. and Cho, H. (2021), "Perceived ephemerality, privacy calculus, and the privacy settings of an ephemeral social media site", *Computers in Human Behavior*, Vol. 124, pp. 106928, doi: <https://doi.org/10.1016/j.chb.2021.106928>

Mainolfi, G. (2020), "Exploring materialistic bandwagon behaviour in online fashion consumption: A survey of chinese luxury consumers", *Journal of Business Research*, Vol. 120, pp. 286-293, doi: <https://doi.org/10.1016/j.jbusres.2019.11.038>

Malär, L., Krohmer, H., Hoyer, W.D. and Nyffenegger, B. (2011), "Emotional brand attachment and brand personality: The relative importance of the actual and the ideal self", *Journal of Marketing*, Vol. 75 No.4, pp. 35-52, doi: <https://10.1509/jmkg.75.4.35>

Mantymaki, M. and Islam, A. (2016), "The janus face of facebook: Positive and negative sides of social networking site use", *Computers in Human Behavior*, Vol. 61, pp. 14-26, doi:
<https://10.1016/j.chb.2016.02.078>

Markos, E., Milne, G.R. and Peltier, J.W. (2017), "Information sensitivity and willingness to provide continua: A comparative privacy study of the united states and brazil", *Journal of Public Policy & Marketing*, Vol. 36 No.1, pp. 79-96, doi: <https://10.1509/jppm.15.159>

McCarthy, S., Rowan, W., Mahony, C. and Vergne, A. (2023), "The dark side of digitalization and social media platform governance: A citizen engagement study", *Internet Research*, Vol. 33 No.6, pp. 2172–2204, doi: <https://10.1108/intr-03-2022-0142>

McHugh, B.C., Wisniewski, P., Rosson, M.B. and Carroll, J.M. (2018), "When social media traumatizes teens", *Internet Research*, Vol. 28 No.5, pp. 1169-1188, doi: <https://10.1108/IntR-02-2017-0077>

Michaelidou, N., Christodoulides, G. and Presi, C. (2022), "Ultra-high-net-worth individuals: Self-presentation and luxury consumption on instagram", *European Journal of Marketing*, Vol. 56 No.4, pp. 949-967, doi: <https://10.1108/Ejm-11-2020-0853>

Miranda, S., Trigo, I., Rodrigues, R. and Duarte, M. (2023), "Addiction to social networking sites: Motivations, flow, and sense of belonging at the root of addiction", *Technological Forecasting and Social Change*, Vol. 188, pp. 122280, doi:
<https://doi.org/10.1016/j.techfore.2022.122280>

- Mulaik, S.A., James, L.R., Van Alstine, J., Bennett, N., Lind, S. and Stilwell, C.D. (1989), "Evaluation of goodness-of-fit indices for structural equation models", *Psychological Bulletin*, Vol. 105 No.3, pp. 430-445, doi: <https://10.1037/0033-2909.105.3.430>
- Nguyen, H., Martin, B.A.S. and Kerr, G. (2023), "Effects of materialism on brand-related user-generated content and positive word of mouth on social media", *Australasian Marketing Journal*, Vol. 31 No.2, pp. 135-141, doi: <https://10.1177/18393349211054230>
- Noguti, V. (2022), "Consumption of marketer-generated content: Consumers as curators of marketing messages that they consume on social media", *European Journal of Marketing*, Vol. 56 No.12, pp. 3545-3567, doi: <https://10.1108/EJM-09-2020-0695>
- Nyadzayo, M.W., Leckie, C. and Johnson, L.W. (2020), "The impact of relational drivers on customer brand engagement and brand outcomes", *Journal of Brand Management*, Vol. 27 No.5, pp. 561-578, doi: <https://10.1057/s41262-020-00198-3>
- Okazaki, S., Schuberth, F., Tagashira, T. and Andrade, V. (2021), "Sneaking the dark side of brand engagement into instagram: The dual theory of passion", *Journal of Business Research*, Vol. 130, pp. 493-505, doi: <https://10.1016/j.jbusres.2019.11.028>
- Oliveira, M. and Fernandes, T. (2022), "Luxury brands and social media: Drivers and outcomes of consumer engagement on instagram", *Journal of Strategic Marketing*, Vol. 30 No.4, pp. 389-407, doi: <https://10.1080/0965254X.2020.1777459>
- Onofrei, G., Filieri, R. and Kennedy, L. (2022), "Social media interactions, purchase intention, and behavioural engagement: The mediating role of source and content factors", *Journal of Business Research*, Vol. 142, pp. 100-112, doi: <https://10.1016/j.jbusres.2021.12.031>
- Page, X., Wisniewski, P., Knijnenburg, B.P. and Namara, M. (2018), "Social media's have-nots: An era of social disenfranchisement", *Internet Research*, Vol. 28 No.5, pp. 1253-1274, doi: <https://10.1108/IntR-03-2017-0123>
- Pantano, E. (2021), "When a luxury brand bursts: Modelling the social media viral effects of negative stereotypes adoption leading to brand hate", *J Bus Res*, Vol. 123, pp. 117-125, doi: <https://10.1016/j.jbusres.2020.09.049>
- Park, M., Im, H. and Kim, H.-Y. (2020), "'You are too friendly!' the negative effects of social media marketing on value perceptions of luxury fashion brands", *Journal of Business Research*, Vol. 117, pp. 529-542, doi: <https://10.1016/j.jbusres.2018.07.026>
- Pechmann, C., Moore, E.S., Andreasen, A.R., Connell, P.M., Freeman, D., Gardner, M.P., Heisley, D., Lefebvre, R.C., Pirouz, D.M. and Soster, R.L. (2011), "Navigating the central tensions in research on at-risk consumers: Challenges and opportunities", *Journal of Public Policy & Marketing*, Vol. 30 No.1, pp. 23-30, doi: <https://10.1509/jppm.30.1.23>
- Pentina, I., Guilloux, V. and Micu, A.C. (2018), "Exploring social media engagement behaviors in the context of luxury brands", *Journal of Advertising*, Vol. 47 No.1, pp. 55-69, doi: <https://10.1080/00913367.2017.1405756>

- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: A critical review of the literature and recommended remedies", *J Appl Psychol*, Vol. 88 No.5, pp. 879-903, doi: <https://10.1037/0021-9010.88.5.879>
- Purohit, S., Arora, V. and Radia, K.N. (2024), "Masstige consumption, brand happiness, and brand advocacy: A service perspective", *International Journal of Consumer Studies*, Vol. 48 No.1, doi: <https://10.1111/ijcs.12944>
- Raggiotto, F., Mazzoni, E., Benassi, M., Panesi, S., Vacondio, M., Filippi, S., Turati, A. and Benvenuti, M. (2023), "Mind the age gap! How problematic internet use affects adults' and emerging adults' well-being and prosocial consumer behavior", *Journal of Interactive Marketing*, Vol. 58 No.2-3, pp. 268-279, doi: <https://10.1177/10949968231155803>
- Rahman, M.S., Bag, S., Hossain, M.A., Abdel Fattah, F.A.M., Gani, M.O. and Rana, N.P. (2023), "The new wave of ai-powered luxury brands online shopping experience: The role of digital multisensory cues and customers' engagement", *Journal of Retailing and Consumer Services*, Vol. 72, pp. 103273, doi: <https://doi.org/10.1016/j.jretconser.2023.103273>
- Redine, A., Deshpande, S., Jebarajakirthy, C. and Surachartkumtonkun, J. (2023), "Impulse buying: A systematic literature review and future research directions", *International Journal of Consumer Studies*, Vol. 47 No.1, pp. 3-41, doi: <https://doi.org/10.1111/ijcs.12862>
- Richins, M.L. and Dawson, S. (1992), "A consumer values orientation for materialism and its measurement - scale development and validation", *Journal of Consumer Research*, Vol. 19 No.3, pp. 303-316, doi: <https://doi.org/10.1086/209304>
- Rook, D.W. and Fisher, R.J. (1995), "Normative influences on impulsive buying behavior", *Journal of Consumer Research*, Vol. 22 No.3, pp. 305-313, doi: <https://doi.org/10.1086/209452>
- Rosenberg, M. (1965), "The measurement of self-esteem, society and the adolescent self-image", *Princeton*, Vol., pp. 16-36, doi:
- Rosenberg, M., Schooler, C. and Schoenbach, C. (1989), "Self-esteem and adolescent problems: Modeling reciprocal effects", *American Sociological Review*, Vol. 54 No.6, pp. 1004-1018, doi: <https://doi.org/10.2307/2095720>
- Roy, S.K., Singh, G., Sadeque, S., Harrigan, P. and Coussement, K. (2023), "Customer engagement with digitalized interactive platforms in retailing", *Journal of Business Research*, Vol. 164, pp. 114001, doi: <https://doi.org/10.1016/j.jbusres.2023.114001>
- Ruvio, A., Somer, E. and Rindfleisch, A. (2014), "When bad gets worse: The amplifying effect of materialism on traumatic stress and maladaptive consumption", *Journal of the Academy of Marketing Science*, Vol. 42 No.1, pp. 90-101, doi: <https://doi.org/10.1007/s11747-013-0345-6>
- Salo, J., Mäntymäki, M. and Islam, A.K.M.N. (2018), "The dark side of social media – and introduction to the special issue: The dark side of social media", *Internet Research*, Vol. 28 No.5, pp. 1166-1168, doi: <https://doi.org/10.1108/IntR-10-2018-442>

- Santos, Z.R., Cheung, C.M.K., Coelho, P.S. and Rita, P. (2022), "Consumer engagement in social media brand communities: A literature review", *International Journal of Information Management*, Vol. 63, pp. 102457, doi: <https://ARTN 102457 10.1016/j.ijinfomgt.2021.102457>
- Sashi, C.M., Brynildsen, G. and Bilgihan, A. (2019), "Social media, customer engagement and advocacy: An empirical investigation using twitter data for quick service restaurants", *International Journal of Contemporary Hospitality Management*, Vol. 31 No.3, pp. 1247-1272, doi: <https://10.1108/Ijchm-02-2018-0108>
- Savin-Williams, R.C. and Jaquish, G.A. (1981), "The assessment of adolescent self-esteem: A comparison of methods", *Journal of Personality*, Vol. 49 No.3, pp. 324-335, doi: <https://doi.org/10.1111/j.1467-6494.1981.tb00940.x>
- Siepmann, C., Holthoff, L.C. and Kowalczyk, P. (2022), "Conspicuous consumption of luxury experiences: An experimental investigation of status perceptions on social media", *Journal of Product & Brand Management*, Vol. 31 No.3, pp. 454-468, doi: <https://10.1108/JPBM-08-2020-3047>
- Siu, N.Y.M., Zhang, T.J. and Yeung, R.S.-P. (2023), "The bright and dark sides of online customer engagement on brand love", *Journal of Consumer Marketing*, Vol. 40 No.7, pp. 957-970, doi: <https://10.1108/JCM-01-2022-5118>
- Stokburger-Sauer, N.E. and Teichmann, K. (2013), "Is luxury just a female thing? The role of gender in luxury brand consumption", *Journal of Business Research*, Vol. 66 No.7, pp. 889-896, doi: <https://doi.org/10.1016/j.jbusres.2011.12.007>
- Suher, J. and Hoyer, W.D. (2020), "The moderating effect of buying impulsivity on the dynamics of unplanned purchasing motivations", *Journal of Marketing Research*, Vol. 57 No.3, pp. 548-564, doi: <https://10.1177/0022243720912284>
- Sun, Y. and Zhang, Y. (2021), "A review of theories and models applied in studies of social media addiction and implications for future research", *Addictive Behaviors*, Vol. 114, pp. 106699, doi: <https://doi.org/10.1016/j.addbeh.2020.106699>
- Taiminen, K. and Ranaweera, C. (2019), "Fostering brand engagement and value-laden trusted b2b relationships through digital content marketing the role of brand's helpfulness", *European Journal of Marketing*, Vol. 53 No.9, pp. 1759-1781, doi: <https://10.1108/Ejm-10-2017-0794>
- Tandon, A., Dhir, A., Talwar, S., Kaur, P. and Mantymaki, M. (2021), "Dark consequences of social media-induced fear of missing out (fomo): Social media stalking, comparisons, and fatigue", *Technological Forecasting and Social Change*, Vol. 171, pp. 15, doi: <https://10.1016/j.techfore.2021.120931>
- Teng, T.H. and Varathan, K.D. (2023), "Cyberbullying detection in social networks: A comparison between machine learning and transfer learning approaches", *IEEE Access*, Vol. 11, pp. 55533-55560, doi: <https://10.1109/ACCESS.2023.3275130>

Tifferet, S. and Herstein, R. (2012), "Gender differences in brand commitment, impulse buying, and hedonic consumption", *Journal of Product & Brand Management*, Vol. 21 No.3, pp. 176-182, doi: <https://10.1108/10610421211228793>

Turel, O., Serenko, A. and Giles, P. (2011), "Integrating technology addiction and use: An empirical investigation of online auction users", *MIS Quarterly*, Vol. 35 No.4, pp. 1043-1061, doi: <https://10.2307/41409972>

Van Tran, D., Nguyen, T. and Nguyen, D.M. (2022), "Understanding how upward social comparison stimulates impulse buying on image-sharing social commerce platforms: A moderated mediation model of benign envy and self-esteem", *Current Psychology*, Vol., doi: <https://10.1007/s12144-022-03042-w>

Vargo, S.L. and Lusch, R.F. (2017), "Service-dominant logic 2025", *International Journal of Research in Marketing*, Vol. 34 No.1, pp. 46-67, doi: <https://doi.org/10.1016/j.ijresmar.2016.11.001>

Verplanken, B. and Herabadi, A. (2001), "Individual differences in impulse buying tendency: Feeling and no thinking", *European Journal of Personality*, Vol. 15 No.S1, pp. S71-S83, doi: <https://doi.org/10.1002/per.423>

Wallace, E., Buil, I. and Catalan, S. (2020), "Facebook and luxury fashion brands: Self-congruent posts and purchase intentions", *Journal of Fashion Marketing and Management*, Vol. 24 No.4, pp. 571-588, doi: <https://10.1108/Jfmm-09-2019-0215>

Wang, Z., Yuan, R., Liu, M.J. and Luo, J. (2022), "Luxury symbolism, self-congruity, self-affirmation and luxury consumption behavior: A comparison study of china and the us", *International Marketing Review*, Vol. 39 No.2, pp. 166-206, doi: <https://10.1108/IMR-02-2021-0090>

Yesiloglu, S., Memery, J. and Chapleo, C. (2021), "To post or not to post? Exploring the motivations behind brand-related engagement types on social networking sites", *Internet Research*, Vol. 31 No.5, pp. 1849-1873, doi: <https://10.1108/INTR-01-2020-0038>

Yin, P., Ou, C.X.J., Davison, R.M. and Wu, J. (2018), "Coping with mobile technology overload in the workplace", *Internet Research*, Vol. 28 No.5, pp. 1189-1212, doi: <https://10.1108/IntR-01-2017-0016>

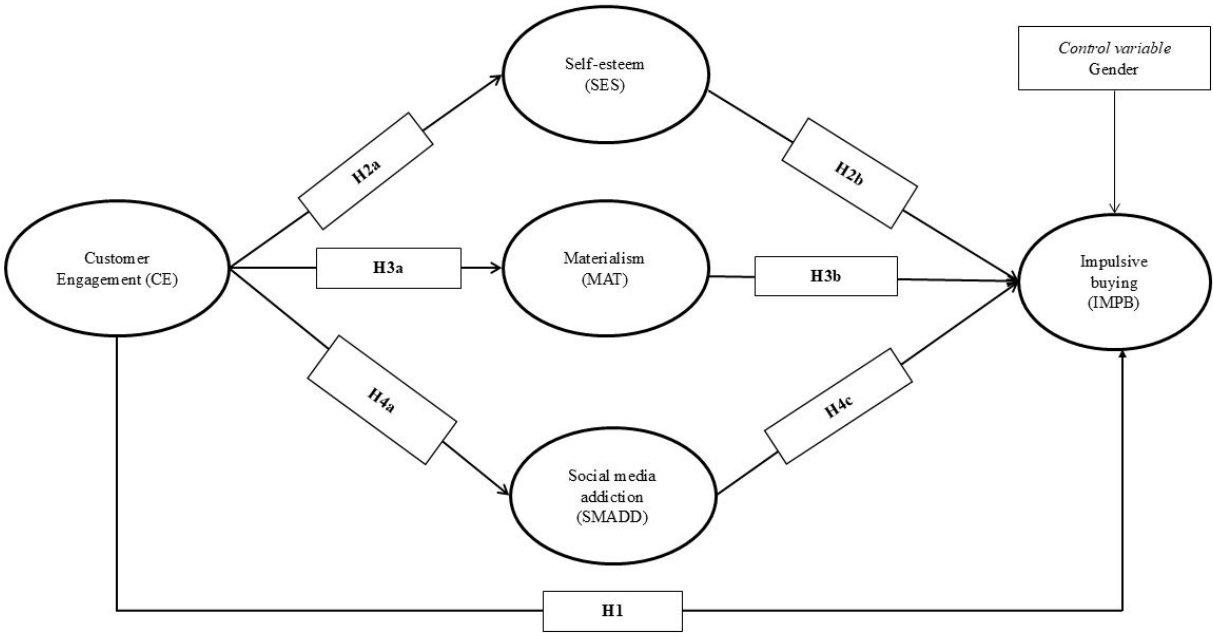
Young, J.E., Klosko, J.S. and Weishaar, M.E. (2006), *Schema therapy: A practitioner's guide*. Guilford press.

Zafar, A.U., Qiu, J. and Shahzad, M. (2020), "Do digital celebrities' relationships and social climate matter? Impulse buying in f-commerce", *Internet Research*, Vol. 30 No.6, pp. 1731-1762, doi: <https://10.1108/INTR-04-2019-0142>

Zhang, K.Z.K., Xu, H., Zhao, S. and Yu, Y. (2018), "Online reviews and impulse buying behavior: The role of browsing and impulsiveness", *Internet Research*, Vol. 28 No.3, pp. 522-543, doi: <https://10.1108/IntR-12-2016-0377>

Zollo, L., Filieri, R., Rialti, R. and Yoon, S. (2020), "Unpacking the relationship between social media marketing and brand equity: The mediating role of consumers' benefits and experience", *Journal of Business Research*, Vol. 117, pp. 256-267, doi: <https://10.1016/j.jbusres.2020.05.001>

Figure 1. Conceptual model



Source: Authors' own work

Table 1. Sample characteristics

Variables	Items	Frequency	Percentage (%)
Gender	Women	589	54.7
	Men	483	44.9
	Prefer not to say	4	0.4
Age group	18-24	154	14.3
	25-35	501	46.6
	36-45	242	22.5
	46-64	169	15.7
	Over 65	10	0.9
Occupation	Senior Management	103	9.6
	Trained Professional	209	19.4
	Skilled Worker	101	9.4
	Junior/Middle Management	197	18.3
	Consultant	38	3.5
	Administrative Staff	113	10.5
	Support Staff	35	3.3
	Researcher	21	2.0
	Apprentice	3	0.3
	Self-employed/Freelancer/Partner	151	14.0
Education	Student	98	9.1
	High school	140	13.0
	College	201	18.7
	Undergraduate	411	38.2
	Postgraduate	268	24.9
	PhD or DBA	49	4.6
	Other	7	0.7
Frequency of Browsing social media	Daily	108	10.0
	Weekly	434	40.3
	Monthly	362	33.6
	Once in six months	124	11.5
	Once in a year	48	4.5

Source: Authors' own work

Table 2. Internal reliability and convergent validity

Construct	Code	Item loading	α	ρA	CR	AVE
IMPB			0.9419	0.9420	0.9420	0.6730
	IMPB1	0.8410				
	IMPB2	0.8530				
	IMPB3	0.890				
	IMPB4	0.8360				
	IMPB5	0.7820				
	IMPB6	0.7350				
	IMPB7	0.8070				
	IMPB9	0.7860				
CE			0.9031	0.9034	0.9040	0.7040
	CE1	0.7900				
	CE2	0.9100				
	CE3	0.9300				
	CE4	0.7140				
MAT			0.8371	0.8378	0.8410	0.6390
	MAT1	0.8490				
	MAT2	0.8310				
	MAT4	0.7110				
SES			0.9045	0.9048	0.9070	0.7090
	SES2R	0.8810				
	SES5R	0.7430				
	SES6R	0.8910				
	SES9R	0.8020				
SMADD			0.9441	0.9442	0.9450	0.6550
	SMADD1	0.7930				
	SMADD2	0.8370				
	SMADD3	0.7730				
	SMADD4	0.8300				
	SMADD5	0.7820				
	SMADD6	0.8080				
	SMADD7	0.8110				

SMADD8	0.8280
SMADD9	0.7990

Notes: α : Cronbach's alpha; ρ_A : reliability metric; CR: composite reliability, AVE: average variance extracted.

Source: Authors' own work

Internet Research

Table 3. Factors items' cross-loadings

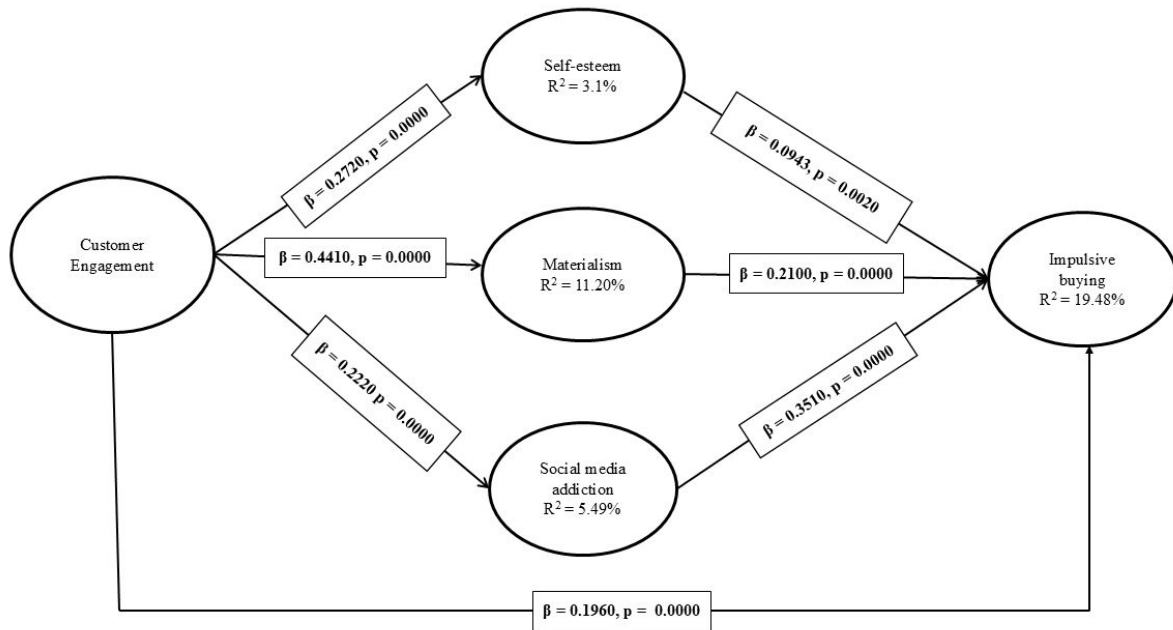
Constructs/items	IMPB	CE	MAT	SES	SMADD
IMPB1	0.8410	0.3768	0.1884	0.3768	0.2614
IMPB2	0.8530	0.3699	0.2190	0.3699	0.2904
IMPB3	0.890	0.3094	0.2372	0.3094	0.3800
IMPB4	0.8360	0.3002	0.2824	0.3002	0.3722
IMPB5	0.7820	0.2920	0.2599	0.2920	0.3946
IMPB6	0.7350	0.4007	0.2508	0.4007	0.2694
IMPB7	0.8070	0.2920	0.2592	0.2920	0.2959
IMPB9	0.7860	0.3084	0.2242	0.3084	0.3835
CE1	0.2724	0.7900	0.2662	0.1860	0.1891
CE2	0.3543	0.9050	0.3262	0.1813	0.2063
CE3	0.3891	0.9300	0.2500	0.1023	0.2584
CE4	0.4049	0.7140	0.2224	0.1578	0.2276
MAT1	0.2546	0.2887	0.8490	0.2887	0.3125
MAT2	0.2104	0.2290	0.8310	0.2290	0.2530
MAT4	0.2542	0.3238	0.7110	0.3238	0.3180
SES2R	-0.0175	0.1119	-0.1260	0.8810	-0.2939
SES5R	-0.1062	0.0872	-0.1302	0.7430	-0.2877
SES6R	0.0072	0.1573	-0.0960	0.8910	-0.2443
SES9R	-0.0715	0.1157	-0.0462	0.8020	-0.2817
SMADD1	0.3221	0.1761	0.3618	-0.2277	0.7930
SMADD2	0.3895	0.2133	0.3179	-0.2331	0.8370
SMADD3	0.2464	0.2030	0.2859	-0.2085	0.7730
SMADD4	0.3515	0.2244	0.3763	-0.1551	0.8300
SMADD5	0.2445	0.1507	0.2300	-0.1783	0.7820
SMADD6	0.3886	0.2062	0.2587	-0.1080	0.8080
SMADD7	0.3554	0.1775	0.2895	-0.1529	0.8110
SMADD8	0.3340	0.2057	0.2725	-0.1203	0.8280
SMADD9	0.2673	0.1515	0.2675	-0.2078	0.7990

Source: Authors' own work

Table 4. Discriminant validity

Constructs	IMPB	CE	MAT	SES	SMADD
IMPB					
CE	0.372				
MAT	0.402	0.139			
SES	0.063	0.185	0.338		
SMADD	0.330	0.356	0.393	0.076	

Source: Authors' own work

Figure 2. Model results

Source: Authors' own work

Table 5. Path analysis

No.	Path	β	t-value	p-value	VIF value	95% BCa confidence intervals	Significant?
H1	CE → IMPB	0.1960***	5.6271	0.0000	1.3257	[0.1081:0.2177]	YES
H2a	CE → SES	0.2720***	5.4250	0.0000	1.0000	[0.1086:0.2407]	YES
H2b	SES → IMPB	0.0943**	3.1310	0.0020	1.0595	[0.0281:0.1600]	YES
H3a	CE → MAT	0.4410***	9.1090	0.0000	1.0000	[0.2650:0.4012]	YES
H3b	MAT → IMPB	0.2100***	6.0570	0.0000	1.1653	[0.1396:0.2782]	YES
H4a	CE → SMADD	0.2220***	4.3330	0.0000	1.0000	[0.1086:0.2156]	YES
H4b	SMADD → IMPB	0.3510***	11.5820	0.0000	1.2198	[0.2987:0.4326]	YES

Notes: **: p. value < 0.01; *** 0.001

Source: Authors' own work

Table 6. Mediation analysis test

No.	Path	Total effect	Indirect effect	t-value	95% BCa confidence intervals	Supported and mediation type
H2	CE → SES → IMPB	0.1960***	0.0170**	2.1517	[0.009:0.048]	Complementary mediation
H3	CE → MAT → IMPB	0.1960***	0.0620***	4.1017	[0.059:0.135]	Complementary mediation
H4	CE → SMADD → IMPB	0.1960***	0.0520***	3.8068	[0.046:0.117]	Complementary mediation

Notes: **: p. value < 0.01; *** 0.001

Source: Authors' own work

Appendix A

Table A1. Literature review

Authors	Purpose	Theory	Study design	Summary of contributions	Stated limitations
Hollebeek et al. (2023)	To investigate the relationship between consumer engagement and stress. It introduces a framework of the consumer engagement/stress interface that identifies consumer engagement as either (i) a consumer stressor, or (ii) a stress-reducing coping mechanism	Conservation of resources theory	Review and conceptual article	A framework of the consumer engagement/stress interface. The framework identifies consumer engagement as either (i) a consumer stressor (e.g. by placing demands on consumers, including in self-service or coproduction tasks) or (ii) a stress-reduced coping mechanism (e.g. by facilitating the development of brand related learning, skills, or resilience)	N/A
Garbas et al. (2023)	To investigate whether customers can effectively cope with the expected cognitive demands of professional services	Transactional stress theory	Study 1 used a time lagged field study on 117 bank customers, and SEM was used to test the model and Study 2 was experimental research on 218 bank customers in	Customer coping before the encounter cannot mitigate the effect of anticipated cognitive demands on customer participation stress. Employee coping support during service encounters is crucial to attenuate the	It only examined 2 central coping mechanisms and did not explore other coping strategies that customers could use to cope with customer participation stress or that employees could use to support

			Germany	unfavorable effect of cognitive demands on customer participation stress.	customer coping. Does not study customer engagement specifically.
McCarthy et al. (2023)	To include the voice of citizens and non-experts in discussions about the governance of social media platforms. It recognizes the concerns associated with social media, such as the spread of misinformation, hate speech, and online surveillance, and highlights the need to consider the perspectives and experiences of individuals who use these platforms to bridge the gap between research and the real-life implications of social media use	Theory of Communicative Action	Conducted 16 hours of online dialogue with 25 citizens to gather their perspectives on social media platform governance. The researchers conducted thematic analysis of the qualitative data collected from the online dialogues, using five phases of analysis to code and analyze the data	Citizens have concerns about the governance of social media platforms, including the spread of misinformation, hate speech, and online surveillance. Citizens rationalize the dilemmas faced in addressing these issues, including tensions such as digital accountability versus data privacy, protection versus inclusion and algorithmic censorship versus free speech. Citizens proposed moral actions in the form of policy recommendations to tackle the dark sides of digitalization	The study was primarily focused on the initial stages of engaging citizens in dialog around current challenges, and did not explore potential solutions or the impact derived from the project outcomes on the future development of social media governance
Schaarschmidt and Dose (2023)	To investigate the emotional and behavioral consequences of idea rejection in customer engagement. Examines the impacts of idea rejection as a stressor on customer emotions (i.e., anger and	Cognitive dissonance theory	Two studies, Study 1 (N=401) experimental and Study 2 (N=202) randomized field experiment. SEM was used to analyze the data	Rejection of customer ideas from idea contests can lead to emotional reactions and behavioral consequences. The way rejection is communicated is important in determining the	The research primarily focused on forms of emotional coping that arise from extreme situations such as surprise or service failure. The research mainly examined

	happiness), future engagement behavior toward other customers (i.e., positive and negative word of mouth), and future engagement behavior toward the firm (i.e., feedback giving and future participation intention)			emotional and behavioral consequences. Firm acknowledgment and individualized feedback can help to mitigate the negative effects of idea rejection	customer engagement behavior toward the company and voice behavior toward other customers
Temerak et al. (2023)	To provide a comprehensive understanding of the function of stress in observing customer engagement. Examines the role of customers' access to information about manager to employee incivility and ethnic similarity in inducing three categories of stress, which in turn influence observing customers' engagement.	Theory of self-regulation	Study 1 (n=181) and Study 2 (n=236) used SEM to analyze the model. Both studies were under sequential scenario-based experiments	Full information about an incivility incident increases observers' psychological stress, which reduces their behavioral and emotional engagement. Incivility triggers outward psychological stress in both white and black observers	The studies conducted in this research used simulated situations rather than real-life scenarios
Keeling et al. (2022)	To apply a (dis)engagement coping lens to understand consumer coping, identify the distinct purposes of consumer coping, captured in six coping scales, and develop an inventory to measure consumer	Coping theory	623 employed individuals in United Kingdom were surveyed, and SEM was used to analyze the data	Consumers largely direct engagement coping efforts toward the direct management of health stressors. Consumers combine multiple ways of coping, forming three distinct coping profiles. Health status is a	Only examines consumer coping efforts at a single point in time, which limits the understanding of consumer differences and changes in coping efforts over time. Highlights the

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positioning on these scales.
It assesses the extent to
which consumers use
online health services, the
ways in which they draw
on these services as coping
resources using the 6-scale
inventory and the influence
of health status on coping
efforts

determiner of coping
efforts

importance of
distinguishing between
short-term and long-
term outcomes of
different coping profiles,
including psychological
health and social
isolation. Short-term
gains may not always
translate into long-term
benefits. The study
mentions the potential
negative aspects of
coping, including
substance abuse and
disengagement coping
approaches facilitated by
online resources.
Lack of empirical
testing and validation

Kumar et al.
(2022)

To develop a framework
that explains the generation
of customer technostress
throughout the firm-
customer journey when
utilizing new-technologies.

Stress theory

Conceptual paper

Customer technostress is a
result of negative
experiences when
interacting with firm-based
new technologies.
Customer technostress
mediates the effect of new
technologies on customer
engagement. Firms can
mitigate the effect of
customer technostress on
customer engagement by
increasing marketing
efforts and customers'

1					familiarity with new	
2					technologies, and by using	
3					adaptive coping strategies.	
4					There is a link between	Relying on self-reported
5	Lunardo et al.	To investigate the link	Self-licensing	Study 1 was survey	lacking control over one's	data and not using a
6	(2022)	between lacking control,	theory	based (France) and	life, the resulting stress,	detailed daily dietary
7		stress, and unhealthy food		serial-mediation	and the maladaptive	assessment method such
8		choices. It seeks to		analysis used to test	outcome of eating	as the 24-hour recall to
9		understand why stress		the model, and	disorders. A perceived lack	assess people's intake of
10		induced by a lack of		Studies 2 and 3 were	of control indirectly	vice food and beverages.
11		control leads to the		experiments in the	prompts people to engage	Did not measure
12		consumption of vice foods		USA and the UK,	in vice food and beverage	engagement as a
13				respectively	consumption, because a	separate construct
14					lack of control leads to	
15					higher personal stress and,	
16					consequently, a need to	
17					escape through self-	
18					indulgence. Having people	
19					perceive more control over	
20					their life is of particular	
21					importance to staying	
22					healthy	
23					Materialism has a positive	Use of a convenience
24					relationship with	sample and the limited
25					compulsive, conspicuous,	generalizability of the
26					and impulsive buying	findings due to the data
27					behaviors in the social	being collected only
28					media domain. Social	from Thai social media
29	Pellegrino et	To investigate the	Social	Data collected from	media intensity is a strong	users who were
30	al. (2022)	relationship between	comparison	a convenience	predictor of each of the	following specific pages
31		materialism and	theory	sample of 400 Thai	three negative consumption	on Facebook and
32		consumption behaviors of		social media users	behaviors studied and	Instagram
33		social media users. The		and SEM used to		
34		authors tested the direct		analyze the model		
35		and indirect effects of				
36		materialism on compulsive,				
37		conspicuous, and impulsive				
38		buying, considering views				
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toward social media
content and social media
intensity as mediators

significantly mediates the
relationship between
materialism and the three-
negative consumption
behaviors. Attitudes toward
social media content were
often not significant in
predicting any negative
behavior

Feddema et al.
(2021)

To discuss the dark side of
social media engagement
and the role of user-
generated content (UGC)
in the illicit trade of
wildlife online. It uses
automatic machine-
learning lexical software to
explore the discourse that
occurs in comments of
posts that promote
behavior change and
demand reduction. Tests
also an extended
elaboration likelihood
model to determine the
nature of information
processing that leads
viewers to agree with
wildlife conservation
content

Elaboration
likelihood
model

Members of online
wildlife trade
communities across
Indonesia. First
qualitative study
analyzed a large
global dataset from
Facebook by text
mining, and Study 2
used binary logistical
regression to analyze
the model

Qualitative analysis of
user-generated content
(UGC) from Facebook
groups in Indonesia
revealed discourse related
to behavior change and
demand reduction.
Motivation, opportunity,
and ability were found to
moderate the relationship
between information
processing and comment
valence, as well as
influencing whether
comments indicated
attitude change

Lack of testing of
psychological behaviors
outcomes.
The study covered only
Facebook users in Study
1

Okazaki et al.
(2021)

To investigate the
relationships between

Dual theory of
passion

527 people aged 18-
50 years in the UK

Brand engagement leads to
compulsive social media

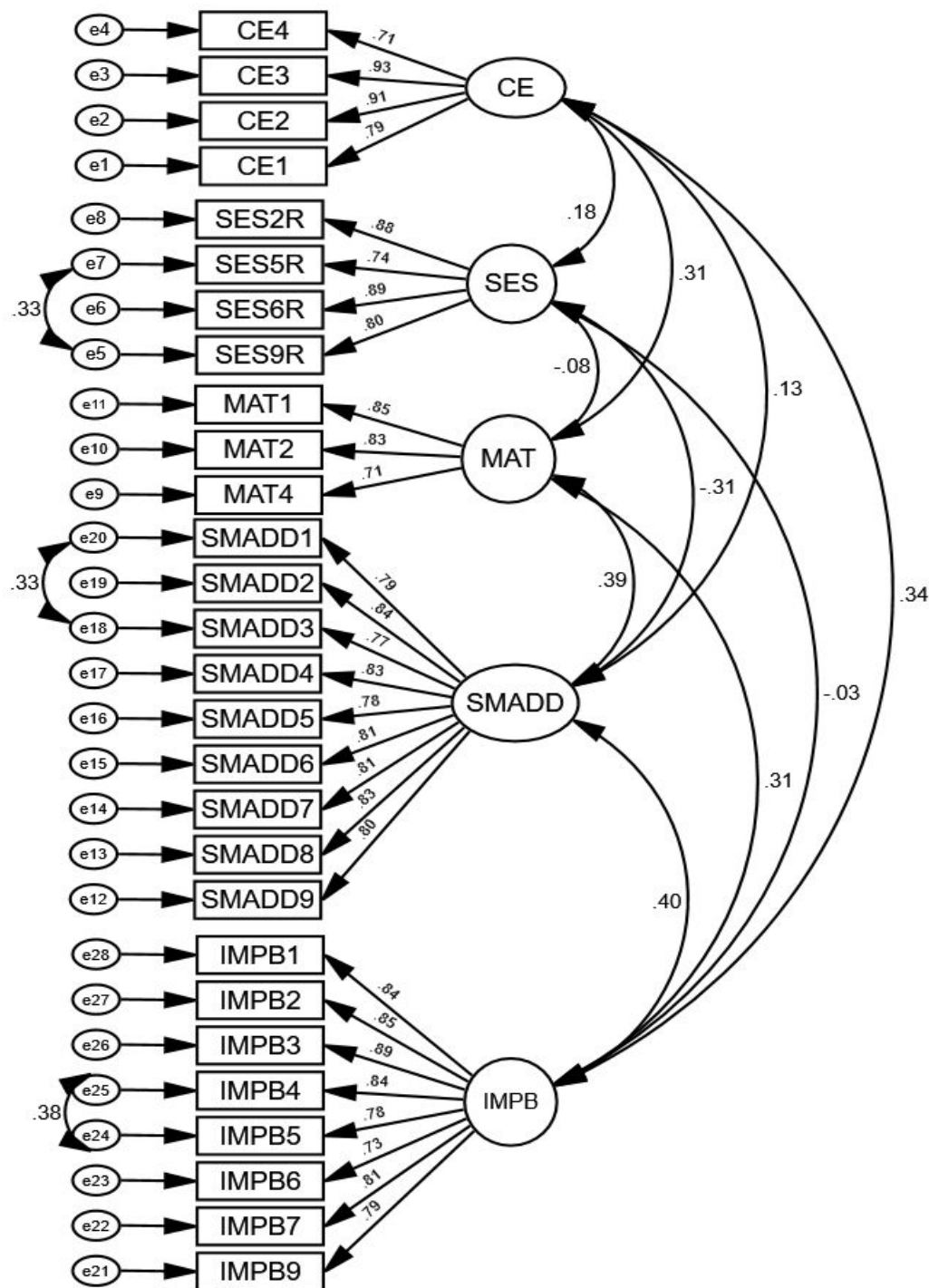
The sample was limited
to UK consumers. The

	brand engagement, compulsive social media use, and compulsive buying. It finds that vanity and narcissism moderate these relationships		with depression, social anxiety, obsessive compulsive disorder, attention deficit or hyperactivity disorder, and narcissism were surveyed, and data was analyzed using SEM	use and compulsive buying. Vanity moderates the relationship between brand engagement and compulsive social media use	study did not consider any factors associated with British culture that might have affected Instagram use; those older than 50 years were excluded due to low Instagram usage. Excludes other social media platforms such as Facebook and Twitter. Primarily examined the social distance dimension of luxury brands in the context of social media marketing. While some luxury brands provide direct links to their online stores on social media to increase sales and convenience, this marketing tactic may negatively influence perceptions of luxury brands by reducing perceived spatial distance. The current research primarily focuses on measuring psychological distance through measures
Park et al. (2020)	To examine the impact of brand-consumer engagement on value perceptions of luxury fashion brands within the context of social media marketing	Construal level theory of psychological distance	Study 1 (N=59) was a preliminary test, Study 2 (N=74) was a single factor test, and Study 3 (N=248) used independent sample t-test. All the studies were under experimental scenario	Narcissism moderates the relationship between compulsive social media use and compulsive buying. Study 1 demonstrated that luxury brands are inherently more psychologically distant than mainstream brands. Studies 2 and 3 showed that a high level of brand-consumer engagement on social media resulted in lower value perceptions (i.e., social, uniqueness, and quality value perceptions) of the brand, and this relationship was mediated by decreased psychological distance. This research provides important implications that luxury fashion brands should maintain psychological distance on	

				social media to protect the core value perceptions of the brands	related to social distance. The study uses “customer-brand interaction” on social media as a proxy for customer engagement but not explicitly measure customer engagement
Khalifa and Shukla (2017)	To examine consumer responses to luxury brand rejection during the reflexive and reflective stages. In addition, the study aims to examine the moderating effect of brand identification, which is the symbolic representation of a person's self-concept through the incorporation of the brand identity into that person's identity	Social identity theory	Study 1 tests the model during the reflexive stage and Study 2 tests the model during the reflective stage. 190 participants were surveyed	Consumers who identify with a luxury brand respond defensively to threats to the brand, regardless of whether the threat is from an in-group or an out-group. High brand identifiers report greater need for belonging and negative affect following threat, while brand dis-identifiers are not affected	Focused on threats arising from in-group versus out-group sources. The source of rejection was manipulated by asking participants to list a social group to which they felt they belonged or did not belong. This resulted in a wide variance in the nature of the groups, which influenced the outcomes. The study did not cover engagement specifically

Note: SEM: Structural Equation Modelling.
Source: Authors’ own work

Figure: A1. CFA results



Notes: CE: Customer Engagement; SES: self-esteem; MAT: Materialism; SMADD: Social media addiction; IMPB: Impulsive buying

Source: Authors' own work

Measurement Invariance

To ensure that the differences in the findings were not due to measurement invariance, we assessed the measurement invariance of the composite models (MICOM) (Hair et al., 2018). We followed Henseler et al’s (2016, p. 412) three-way procedure: (1) “configural invariance assessment”, (2) “compositional invariance assessment”, and (3) the “assessment of equal means and variances”. The results in Tables A2 to A11 demonstrate evidence of measurement invariance that allowed us to test whether the standardized path coefficients can be compared across the two groups: female and male.

Table A2. Compositional invariance

female vs. men	C = 1	95% CI	CIE?
IMPB	0.9989	[0.9987 :1.000]	YES
CE	0.9996	[0.9962 :1.000]	YES
MAT	0.9967	[0.9918 :1.000]	YES
SES	0.9935	[0.9362 :1.000]	NO
SMADD	0.9988	[0.9982 :1.000]	YES

Notes: C=1: correlation value=1; CI: confidence interval; CIE: compositional invariance established?

Source: Authors’ own work

Table A3. Equal means assessment

female vs. men	D = 0	95% CI	EMV?
IMPB	0.0386	[-0.1688: 0.1683]	YES
CE	0.1144	[-0.1710: 0.1546]	YES
MAT	-0.3076	[-0.1812: 0.1547]	NO
SES	-0.1533	[-0.1756: 0.1649]	YES
SMADD	-0.0015	[-0.1792: 0.1711]	YES

Notes: D=0: (D=0) difference in the composite's mean value; CI: confidence interval; EMV: equal Mean values.

Source: Authors’ own work

Table A4. Equal variances assessment

female vs. male			
	C = 1	95% CI	EV?
IMPB	-0.1269	[-0.1779; 0.1786]	YES
CE	-0.1880	[-0.2568; 0.2715]	YES
MAT	0.0445	[-0.1960; 0.2144]	YES
SES	0.2793	[-0.2489; 0.2407]	NO
SMADD	-0.2604	[-0.1891; 0.1875]	NO

Notes: C=1: logarithm of the composite's variances ratio (=1); CI: confidence interval; EV: equal variances.

Source: Authors' own work

Table A5: Internal reliability and convergent validity for each gender

Construct	code	Measurement items	Female				Male					
			Item loading	α	ρA	CR	AVE	Item loading	α	ρA	CR	AVE
Impulsive Buying (IMPB)				0.9388	0.9392	0.9389	0.6612		0.9470	0.9468	0.9470	0.6930
	IMPB1	I often buy things from [Luxury X brand] spontaneously.	0.8205					0.8615				
	IMPB2	"Just do it" describes the way I buy things from [Luxury X brand].	0.8336					0.8728				
	IMPB3	I often buy things from [Luxury X brand] without thinking.	0.8861					0.9090				
	IMPB4	"I see it, I buy it" describes me.	0.8608					0.8696				
	IMPB5	"Buy now, think about it later" describes me.	0.7668					0.8785				
	IMPB6	Sometimes I feel like buying things from [Luxury X brand] on the spur of the moment.	0.7145					0.8089				
	IMPB7	I buy things from [Luxury X brand] according to how I feel at the moment.	0.8000					0.8429				
	IMPB9	Sometimes I am a bit reckless about what I buy from [Luxury X brand].	0.8102					0.7864				
Customer Engagement (CE)				0.8932	0.8982	0.9053	0.6150		0.9152	0.9169	0.9223	0.6665
	CE1	I feel very positive when I browse [luxury X brand]	0.7485					0.7844				

		social media platform(s).											
		CE2	Browsing [luxury X brand] social media platform(s) makes me happy.	0.7793						0.7860			
		CE3	I feel good when I browse [luxury X brand] social media platform(s).	0.8103						0.8827			
		CE4	I'm proud to browse [luxury X brand] social media platform(s).	0.8428						0.9048			
		CE5	I spend a lot of time browsing [luxury X brand] social media platform(s), compared to other brands on social media platform(s).	0.7551						0.7374			
		CE6	[Luxury X] social media platform(s) is one of the brands I usually browse when I browse brand on social media platform(s).	0.7653						0.7902			
	Materialism (MAT)				0.9101	0.9152	0.9291	0.7974		0.8289	0.8334	0.8578	0.6021
		MAT1	I like to be looked at with envy.	0.8252						0.8097			
		MAT2	I like to possess things others don't have.	0.8207						0.8204			
		MAT3	I would be happier if I could buy more things.	0.7621						0.7605			
		MAT4	I am interested in people who have succeeded in their tastes, their cars, and their dress.	0.7818						0.7080			
	Self-esteem (SES)				0.9122	0.9134	0.9192	0.6561		0.9063	0.9115	0.9203	0.6586
		SES2R	At times I think I am no good	0.8534						0.8625			

[illegible]

	social media.		
SMADD9	I often fail to get enough rest because I interact with social media.	0.7606	0.8401

Model fit

The normed χ^2 is 3.1942, RMSEA is 0.0616, SRMR is 0.0565, NFI is 0.9013, TLI is 0.9156, CFI is 0.9224, GFI is 0.9094, and AGFI is 0.9001

The normed χ^2 is 2.6306, RMSEA is 0.0581, SRMR is 0.0621, NFI is 0.9008, TLI is 0.9302, CFI is 0.9358, GFI is 0.9205, and AGFI is 0.9172

Source: Authors' own work

Internet Research

Table A6: Factors-items cross loadings for female

Items	IMPB	CE	MAT	SES	SMADD
IMPB1	0.8205	0.3928	0.0920	0.0126	0.2614
IMPB2	0.8336	0.3527	0.1469	0.0238	0.2904
IMPB3	0.8861	0.2690	0.1530	-0.0247	0.3800
IMPB4	0.8608	0.2161	0.1658	-0.0654	0.3722
IMPB5	0.7668	0.1872	0.1660	-0.1051	0.3946
IMPB6	0.7145	0.3724	0.1671	-0.0648	0.2694
IMPB7	0.8000	0.2371	0.1644	-0.0108	0.2959
IMPB9	0.8205	0.2978	0.1573	-0.0296	0.3835
CE1	0.1653	0.7485	0.2238	0.1444	0.0663
CE2	0.1950	0.7793	0.2235	0.1435	0.1145
CE3	0.2154	0.8103	0.2208	0.1523	0.1437
CE4	0.1974	0.8428	0.2654	0.1636	0.1780
CE5	0.2988	0.7551	0.1723	0.0710	0.1793
CE6	0.3530	0.7653	0.1816	0.2026	0.1452
MAT1	-0.0760	0.1914	0.8252	0.0276	0.2816
MAT2	0.1240	0.1867	0.8207	-0.0510	0.2463
MAT3	0.1299	0.1158	0.7621	-0.1788	0.3350
MAT4	0.1964	0.3093	0.7818	-0.0034	0.3180
SES2R	0.3653	0.0706	-0.1260	0.8534	-0.2584
SES5R	-0.1323	0.2168	-0.1302	0.7865	-0.1694
SES6R	0.0249	0.2247	-0.0960	0.8822	-0.1850
SES8	-0.0064	0.0891	0.0466	0.7356	-0.1104
SES9R	-0.0766	0.0786	-0.0462	0.8715	-0.1348
SES10	-0.0310	0.1095	0.0845	0.7149	-0.1642
SMADD1	0.1565	0.1161	0.3338	-0.2679	0.8225
SMADD2	0.2615	0.1760	0.3022	-0.2926	0.8131
SMADD3	0.3345	0.1703	0.2974	-0.2258	0.7980
SMADD4	0.2111	0.1871	0.3946	-0.2014	0.8004
SMADD5	0.2398	0.1044	0.2403	-0.2207	0.7632
SMADD6	0.1500	0.1633	0.2224	-0.1445	0.7592
SMADD7	0.3321	0.0669	0.2288	-0.1339	0.7592
SMADD8	0.2700	0.1229	0.2526	-0.1260	0.8147
SMADD9	0.2524	0.1216	0.2889	-0.2205	0.7606

Source: Authors' own work

Table A7: Factors-items cross loadings for male

Items	IMPB	CE	MAT	SES	SMADD
IMPB1	0.8615	0.3610	0.3429	0.1741	0.3863
IMPB2	0.8728	0.3904	0.3356	0.1561	0.4483
IMPB3	0.9090	0.3541	0.3343	0.1179	0.4266
IMPB4	0.8696	0.3893	0.4240	0.1349	0.4801
IMPB5	0.8785	0.4079	0.3935	0.0704	0.3344
IMPB6	0.8089	0.4333	0.3970	0.1978	0.3822
IMPB7	0.8429	0.3513	0.3706	0.1516	0.4618
IMPB9	0.7864	0.3256	0.3135	0.0720	0.3571
CE1	0.2959	0.7844	0.3550	0.2547	0.1246
CE2	0.3335	0.7860	0.3291	0.3132	0.2095
CE3	0.3431	0.8827	0.3496	0.2476	0.2309
CE4	0.4114	0.9048	0.4206	0.2226	0.2392
CE5	0.4380	0.7374	0.3487	0.1667	0.3420
CE6	0.4583	0.7902	0.2899	0.1201	0.3221
MAT1	0.4107	0.4026	0.8097	0.0864	0.3468
MAT2	0.3168	0.3026	0.8204	0.0996	0.2626
MAT3	0.2583	0.2232	0.7605	-0.0928	0.2788
MAT4	0.3895	0.3818	0.7080	0.1835	0.3452
SES2R	0.0238	0.1587	0.1034	0.7986	-0.3026
SES5R	-0.0837	0.1121	-0.1260	0.8534	-0.2584
SES6R	0.0350	0.1580	0.0451	0.8009	-0.2745
SES8	-0.0515	0.1697	0.0542	0.8456	-0.2920
SES9R	0.2407	0.1900	-0.1302	0.8589	-0.1694
SES10	0.2506	0.2884	-0.0960	0.8416	-0.1850
SMADD1	0.3884	0.2351	0.4123	0.1835	0.3745
SMADD2	0.4392	0.2581	0.3419	-0.1722	0.8067
SMADD3	0.2809	0.2379	0.2992	-0.1703	0.8843
SMADD4	0.4644	0.2607	0.3621	-0.1766	0.7986
SMADD5	0.3549	0.1926	0.2353	-0.1096	0.8534
SMADD6	0.4541	0.2628	0.2934	-0.1179	0.8009
SMADD7	0.4514	0.2912	0.3461	-0.0763	0.8456
SMADD8	0.4389	0.2902	0.3230	-0.1836	0.8589
SMADD9	0.3745	0.1813	0.2736	-0.0966	0.8416

Source: Authors' own work

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Table A8. Discriminant validity for female group

Constructs	IMP	CE	MAT	SES	SMADD
IMPB					
CE	0.3819				
MAT	0.2199	0.2845			
SES	0.0853	0.1699	0.1400		
SMADD	0.3215	0.1891	0.4173	0.2848	

Source: Authors' own work

Table A9. Discriminant validity for male group

Constructs	IMPB	CE	MAT	SES	SMADD
IMPB					
CE	0.4641				
MAT	0.4633	0.4403			
SES	0.1547	0.2673	0.1913		
SMADD	0.4985	0.3026	0.4143	0.2563	

Source: Authors' own work

Table A10. Collinearity assessment (VIF) for female group

Path	VIF
CE → MAT	1.0000
CE → SES	1.0000
CE → SMADD	1.0000
MAT → IMPB	1.1508
SES → IMPB	1.0727
SMADD → IMPB	1.2285

Source: Authors' own work

Table A11. Collinearity assessment (VIF) for male group

Constructs	VIF
CE → MAT	1.0000
CE → SES	1.0000
CE → SMADD	1.0000
MAT → IMPB	1.2057
SES → IMPB	1.0618
SMADD → IMPB	1.2259

Source: Authors' own work

Table A12. Path testing for female group

No.	Path	β	t-value	p-value	95% BCa confidence intervals	Supported?
H1	CE $\rightarrow$ IMPB	0.0819	2.3554	0.0185	[0.0261: 0.1644]	YES
H2a	CE $\rightarrow$ SES	0.1881	4.0552	0.0001	[-0.0030: 0.3063]	YES
H2b	SES $\rightarrow$ IMPB	0.0370	0.4098	0.6820	[-0.1449: 0.2003]	NO
H3a	CE $\rightarrow$ MAT	0.2786	5.6750	0.0000	[0.1669: 0.3799]	YES
H3b	MAT $\rightarrow$ IMPB	0.0779	1.2181	0.2232	[-0.0543: 0.1935]	NO
H4a	CE $\rightarrow$ SMADD	0.0859	1.8624	0.0626	[0.0663: 0.2924]	NO
H4b	SMADD $\rightarrow$ IMPB	0.3074	5.4819	0.0000	[0.1836: 0.4158]	YES

Model fit: The normed χ^2 is 3.496, RMSEA is 0.0657, SRMR is 0.0601, NFI is 0.9102, TLI is 0.9040, CFI is 0.9111, GFI is 0.9360, and AGFI is 0.9244

Source: Authors' own work

Table A13. Path testing for male group

No.	Path	β	t-value	p-value	95% BCa confidence intervals	Supported?
H1	CE $\rightarrow$ IMPB	0.2771	6.8118	0.0000	[0.2063: 0.3653]	YES
H2a	CE $\rightarrow$ SES	0.1675	3.3443	0.008	[0.0678: 0.2648]	YES
H2b	SES $\rightarrow$ IMPB	0.0903	1.9662	0.0493	[0.0562: 0.1773]	YES
H3a	CE $\rightarrow$ MAT	0.4651	10.3351	0.0000	[0.3723: 0.5489]	YES
H3b	MAT $\rightarrow$ IMPB	0.2713	5.3439	0.0000	[0.1735: 0.3724]	YES
H4a	CE $\rightarrow$ SMADD	0.2381	5.1601	0.0000	[0.0678: 0.3260]	YES
H4b	SMADD $\rightarrow$ IMPB	0.4515	9.4725	0.0000	[0.3515: 0.5432]	YES

Model fit: The normed χ^2 is 2.9215, RMSEA is 0.0631, SRMR is 0.0585, NFI is 0.9247, TLI is 0.9177, CFI is 0.9238, GFI is 0.9428, and AGFI is 0.9397

Source: Authors' own work

Table A14. Mediation testing for female group

H.	Path	Total effect	Indirect effect	t-value	95% BCa confidence intervals	Supported and hypothesis type
H2	CE $\rightarrow$ SES $\rightarrow$ IMPB	0.0819*	0.0067	0.7143	[-0.0187: 0.0502]	Direct only
H3	CE $\rightarrow$ MAT $\rightarrow$ IMPB	0.0819*	0.0206	1.0825	[-0.0123: 0.0629]	Direct only
H4	CE $\rightarrow$ SMADD $\rightarrow$ IMPB	0.0819*	0.0546*	2.4121	[0.0182: 0.01062]	Complementary mediation

Source: Authors' own work

Table A15. Mediation testing for male group

H.	Path	Total effect	Indirect effect	t-value	95% BCa confidence intervals	Supported and hypothesis type
H2	CE → SES → IMPB	0.2771***	0.0531***	2.6511	[0.0120:0.0918]	Complementary mediation
H3	CE → MAT → IMPB	0.2771***	0.1016***	3.4574	[0.0484:0.1618]	Complementary mediation
H4	CE → SMADD → IMPB	0.2771***	0.1224***	3.7529	[0.0638:0.1882]	Complementary mediation

Source: Authors' own work

Reference List

Feddema, K., Harrigan, P. & Wang, S. S. (2021), "The Dark Side of Social Media Engagement: An Analysis of User-Generated Content in Online Wildlife Trade". *Australasian Journal of Information Systems*, 25. 35.
doi:<https://10.3127/ajis.v25i0.2987>.

Garbas, J., Blaurock, M., Büttgen, M. & Ates, Z. (2023), "How can customers cope with cognitive demands of professional services? The role of employee coping support". *Psychology & Marketing*, 40(5). 867-887.
doi:<https://doi.org/10.1002/mar.21788>.

Hair, J. F., Sarstedt, M., Ringle, C. M. & Gudergan, S. P. (2018), *Advanced Issues in Partial Least Squares Structural Equation Modeling*, SAGE Publications, Thousand Oaks, CA.

Henseler, J., Ringle, C. M. & Sarstedt, M. (2016), "Testing measurement invariance of composites using partial least squares". *International Marketing Review*, 33(3). 405-431. doi:<https://10.1108/Imr-09-2014-0304>.

Hollebeek, L. D., Hammedi, W. & Sprott, D. E. (2023), "Consumer engagement, stress, and conservation of resources theory: A review, conceptual development, and future research agenda". *Psychology & Marketing*, 40(5). 926-937.
doi:<https://doi.org/10.1002/mar.21807>.

Keeling, D. I., de Ruyter, K. & Laing, A. (2022), "Consumer (dis)engagement coping profiles using online services in managing health-related stressors". *Psychology & Marketing*, 39(12). 2205-2220. doi:<https://doi.org/10.1002/mar.21717>.

Khalifa, D. & Shukla, P. (2017), "Me, my brand and I: Consumer responses to luxury brand rejection". *Journal of Business Research*, 81. 156-162.
doi:<https://10.1016/j.jbusres.2017.05.032>.

Kumar, V., Rajan, B., Salunkhe, U. & Joag, S. G. (2022), "Relating the dark side of new-age technologies and customer technostress". *Psychology & Marketing*, 39(12). 2240-2259. doi:<https://10.1002/mar.21738>.

- Lunardo, R., Jaud, D. & Jaspers, E. (2022), "Engagement in vice food and beverage consumption: The role of perceived lack of control". *Psychology & Marketing*, 39(12). 2221-2239. doi:<https://doi.org/10.1002/mar.21708>.
- McCarthy, S., Rowan, W., Mahony, C. & Vergne, A. (2023), "The dark side of digitalization and social media platform governance: a citizen engagement study". *Internet Research*. 33. doi:<https://10.1108/intr-03-2022-0142>.
- Okazaki, S., Schuberth, F., Tagashira, T. & Andrade, V. (2021), "Sneaking the dark side of brand engagement into Instagram: The dual theory of passion". *Journal of Business Research*, 130. 493-505. doi:<https://10.1016/j.jbusres.2019.11.028>.
- Park, M., Im, H. & Kim, H.-Y. (2020), "'You are too friendly!' The negative effects of social media marketing on value perceptions of luxury fashion brands". *Journal of Business Research*, 117. 529-542. doi:<https://10.1016/j.jbusres.2018.07.026>.
- Pellegrino, A., Abe, M. & Shannon, R. (2022), "The Dark Side of Social Media: Content Effects on the Relationship Between Materialism and Consumption Behaviors". *Frontiers in Psychology*, 13. 15. doi:<https://10.3389/fpsyg.2022.870614>.
- Schaarschmidt, M. & Dose, D. B. (2023), "Customer engagement in idea contests: Emotional and behavioral consequences of idea rejection". *Psychology & Marketing*, 40(5). 888-909. doi:<https://doi.org/10.1002/mar.21794>.
- Temerak, M. S., Zhang, R. W. & Lages, C. R. (2023), "Observing customer stress and engagement: An intercultural perspective". *Psychology & Marketing*, 40(5). 910-925. doi:<https://doi.org/10.1002/mar.21791>.