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Phone: +(351) 217 903 024 | e-mail: administrador.repositorio@iscte-iul.pt
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Using Necessary Condition Analysis to Understand Digital Storytelling's Impact on Consumer Behavior

Abstract

Digitalization disrupted the marketing landscape, enabling connection with stakeholders, but also introducing heightened competition and digitally empowered consumers. These consumers navigate a world of information overload, pushing brands to look for innovative communication strategies to break through the clutter. Brand storytelling emerged as a powerful tool in this regard, engaging consumers through cognitive and emotional pathways. This study explores the necessary conditions for effective digital storytelling campaigns, using two techniques for data analysis. Using narrative transportation theory, and survey consumer data, the research evidences the cognitive path foundational role to convert storytelling to purchase intention. Conversely, the emotional path, while influential for word-of-mouth, is neither a necessary nor a sufficient condition for purchase intention. These findings highlight the strategic value of overall brand equity in storytelling campaigns, offering actionable insights for more effective marketing strategies.

Keywords: storytelling; overall brand equity; affective involvement; purchase intention; marketing; necessary condition analysis

Using Necessary Condition Analysis to Understand Digital Storytelling's Impact on Consumer Behavior

1. Introduction

Digitalization changed the marketing landscape, bringing significant disruptions to the way brands operate, communicate, and engage with consumers (Rodgers and Thorson, 2018). While it allowed brands to connect with stakeholders (Coker *et al*, 2021; Kemp *et al*, 2021) and benefit from added value (Lähteenmäki *et al*, 2022; McAlister *et al*, 2012), it also brought intense competition and new consumer profiles (Herhausen *et al*, 2019). Nowadays brands deal with digitally savvy and demanding consumers, who divide their attention among multiple tasks and have lower tolerance for poor performance (Duff and Segijn 2019; Fulgoni, 2014). Notably, consumers live in a digitally-empowering world, with fast access to all kinds of information and content (Agyei-Boapeah *et al*, 2022; Amit and Han, 2017; Vollero *et al*, 2019). Considering this information overload, it became more defying for brands to emerge from the noise clutter and create communication consumers want to see rather than avoid (Fransen *et al,* 2015; Jeon *et al,* 2019; Lou *et al*, 2019). In fact consumer levels of scepticism and resistance to advertising are now higher than ever (Hernandez *et al*, 2023; Yin *et al*, 2024).

In this regard, stories are a convincing and powerful tool to capture consumers' attention (Braddock and Dillard, 2016; Glaser and Reisinger, 2022; Park *et al*, 2023; Shen *et al*, 2015). Their effect has been noted by brands such as Walt Disney (Chiu *et al*, 2012), Pandora (Dias and Cavalheiro, 2022) or even Chipotle (Kemp *et al*, 2023). Brand storytelling involves applying literary techniques and narrative discourse to marketing communications (Mills and Robson, 2020). Through these techniques, consumers can be transported into and through the story world, and become part of a memorable and engaging experience (Key *et al*, 2021; Lundqvist *et al*, 2013; Pulizzi, 2012). While the persuasive power of stories is recognized in

the literature (e.g. Júnior *et al*, 2023), it becomes crucial to investigate the mechanisms that underly such power to optimize the use of storytelling in today's challenging communication world (Thomas and Grigsby, 2024).

The persuasion literature advocates a dual-process model, differentiating between cognitive and emotional mechanisms (e.g. Petty and Cacioppo, 1986). Nevertheless, stories can activate both paths, as they may be complementary rather than mutually exclusive (Coulter and Punj, 2004; Kitchen *et al*, 2014). This is especially true for digital storytelling, where multimodal content can evoke layered cognitive and affective responses. In one hand, stories can enclose logical structure, and present brand and product information, associations or values (Herskovitz and Crystal, 2010). By being immersed in stories, consumers more easily structure, retain, and recall such data (Hong *et al*, 2022). On the other hand, stories can elicit emotions and use sensory appeals, conveying feelings and relatable characters or situations (Júnior *et al*, 2023). Story narratives allow consumers to make analogies to their own experiences, enchancing the stories' engaging power (Leonidou and Leonidou, 2009; Van Laer *et al*, 2014). Beyond assuming the processes as concurrent, our study proposes a nuanced investigation on their influence, exploring whether cognitive and emotional paths are jointly or independently necessary. Recognizing not only the influencing factors but also the conditions that are essential for achieving the desired outcomes, researchers and practitioners can better understand the non-negotiable factors that drive consumer behavior. This allows them to avoid investing on non-essential features, thus contributing to more effective marketing communication strategies.

Building on narrative transportation theory, this study investigates the necessary conditions regarding digital storytelling campaigns' emotional and cognitive paths to consumer behavior. It departs from prior research by offering distinctive conceptual, methodological, and empirical contributions. Conceptually, it advances the literature by disentangling the cognitive and emotional paths underpinning digital storytelling's influence on consumer behavior while

assuming their potential coexistence. Methodologically, it investigates the Necessary Condition Analysis required for consumer behavior outcomes. Empirically, it demonstrates that, while both paths are influential, only the cognitive serves as a necessary condition for purchase intention.

2. Conceptual background

Narrative transportation theory delves into the impact of storytelling on individuals' experiences (Green *et al*, 2004). Stories enclose information, imagery, and feelings in a narrative context (Lim and Childs, 2020). Through the immersive power of narratives, consumers are transported to a mental alternative reality. (Green *et al*, 2004). While this theory posits that transportation increases stories' persuasiveness, memorability, and communication efficiency (Aaker and Aaker, 2016), it does not explain how it occurs (Thomas and Grigsby, 2024).

The literature on persuasion may assist understanding the mechanisms. The dominant view in this literature advocates the existence of a dual-process, with persuasion occurring via emotional (peripheral/ heuristic) or cognitive (central/ systematic) path (Chaiken, 1980; Petty and Cacioppo, 1986). Whereas the first depends on affective cues and emotionally charged stimuli, the latter relies on information processing, argument assessment and analytical reasoning (e.g. Shahab *et al*, 2021). From this, emotional-related and cognitive-related processes consumers go through while immersed in the stories, contribute to the stories' power on consumers (Appel, 2022; Hong *et al*, 2022; Kim *et al*, 2017).

Although the emotional and cognitive routes are often presented as distinct and unattached, marketing communication research increasingly supports an interactive or integrative model, in which emotional appeals and cognitive elaboration can coexist (Coulter and Punj, 2004; Kitchen *et al*, 2014). In fact, employing a digital storytelling narrative structure may trigger

both the emotional and cognitive components, given the emotional engagement and the information and associations provided (Boukis, 2023; Greeb *et al*, 2004; Hamby *et al*, 2017; McDougal *et al*, 2021). Our conceptual framework acknowledges the existence of both paths and argue that they should be analyzed as potentially necessary conditions to consumers' behavioral responses.

2.1. Emotional path

According to the narrative transportation theory, stories can transport consumers into the stories' context (Green *et al*, 2004). The narrative structure, that is, the presentation of the elements that compose the story plot (Júnior *et* al, 2023; Sanders and Van Krieken, 2018), provides a framework to interpret brand meaning and experience (Escalas, 2004; McDougal *et al*, 2021). It can also spawn emotions or feelings (Dessart and Pitardi, 2019; Júnior *et al*, 2023), prompting affective involvement (Kemp *et al*, 2021; Lim and Childs, 2020; Pera and Viglia, 2016). Brand affective involvement refers to consumers' feelings and emotional states toward the brand (Zaichkowsky, 1994). It reflects emotional engagement, a key mechanism of the emotional path.

Consumers' brand-related positive or negative moods can elicit a more thorough processing of communication actions (Stavraki *et al*, 2021) and incite consumers to act, especially in the digital world (Haase *et al*, 2022). Behavioral responses can come in forms such as Word-of-mouth (WOM) recommendations or purchase intentions (e.g., Thomas and Grigsby, 2024). Word-of-mouth refers to customers' informal communications regarding a brand (Hennig-Thurau *et al*, 2004). It is recognized as one of the prime interest topics in understanding marketing effects in the digital era (Oh *et al*, 2020). It tends to perceived as more reliable than brand-controlled communication, as it reflects other consumers' experiences (Lim and Chung,

2011). Purchase intentions reflect consumers' plan to buy a brand or a product, and is often used in the literature as a proxy to purchase behavior (e.g., Seegebarth *et al*, 2019).

In the context of digital storytelling, narrative structure is known to enhance persuasive outcomes by increasing emotional engagement (e.g., Van Laer *et al*, 2014). Involved consumers are more willing to share their opinions regarding brands, provide online recommendations, and encourage others to interact with brands (Hollebeek and Chen, 2014; Naumann *et al*, 2020). Additionally, emotionally involved consumers may include the brand in their reference list and refrain from choosing others (Cuesta-Valiño *et al*, 2024; Leonidou *and* Leonidou, 2009). In that regard, stories need to ensure emotional connection to effectively persuade (Kühn and Boshof, 2023; Stavraki *et al*, 2021), and contribute to consumer behavior (Morwitz, 2012; Prentice and Loureiro, 2018). To provide a more better understanding of how emotional involvement contributes to consumer behavior, we propose separate hypotheses for its role as a necessary condition and as a sufficient condition, particularly in relation to WOM and purchase intention.

H1a (Necessity): Affective involvement is a necessary condition for digital storytelling narrative structure to generate (a) word-of-mouth and (b) purchase intention.

H1b (Sufficiency): Affective involvement is a sufficient condition for narrative structure digital storytelling to generate (a) word-of-mouth and (b) purchase intention.

2.2. Cognitive path

Stories can involve cognitive cues such as perceptions, experiences, and quality associations (Siu *et al*, 2016; Yoo and Donthu, 2001). The use of literaty techniques and narratives to convey this information facilitates its presentation and providence of meaning (McDougal *et al*, 2021; Park *et al*, 2010). Further, portraying information in such setting reduces counterarguments, and may add beneficial and distinctive associations to a brand (Delgado-Ballester, 2021; Kemp

et al, 2021; Lundqvist *et al*, 2013). Overall brand equity refers to the knowledge-based assessments, beliefs, and associations about a brand (Yoo and Donthu, 2001). In digital storytelling and advertising contexts, it is frequently conceptualized as a summary cognitive judgement, which is in line with the cognitive path (e.g., Christodoulides and De Chernatony, 2010; Cobb-Walgren *et al*, 1995; Yoo and Donthu, 2001).

Through this path, consumers' cognitive responses to decode and process the information and mentioned associations are activated (Coker *et al*, 2021; McDougal *et al*, 2021; Woodside *et al*, 2008). Specifically, consumers must recognize and understand the brand before they can credibly share or decide to purchase. Strong and positive consumers' perceptions, experiences, and quality associations regarding brands may enhance consumers' propensity to talk about the brand, serving as basis for WOM (Moise *et al*, 2019; Sweeney, Soutar and Mazzarol, 2014; van Doorn *et al*, 2010). Furthermore, brands with solid overall brand equity can rely on such value to assist consumers in interpreting, processing, storing, and retrieving brand information (Aaker, 1991). It provides foundational elements for brand preference (Cobb-Walgren *et al*, 1995), and perceived risk reduction (Yoo and Donthu, 2001), which may lead to purchases (Goyal and Verma, 2024). Without the mental associations, digital storytelling lacks a cognitive anchor (Keller, 1993). Recognizing the dual importance of brand equity as both a foundational and potentially sufficient driver, we distinguish between its necessity and sufficiency in influencing consumer behavioral responses.

H2a (Necessity): Overall brand equity is a necessary condition for digital storytelling narrative structure to generate (a) word-of-mouth and (b) purchase intention.

H2b (Sufficiency): Overall brand equity is a sufficient condition for digital storytelling narrative structure to generate (a) word-of-mouth and (b) purchase intention.

While the core of this study is investigating the dual-path influence (cognitive and emotional) of digital storytelling on consumer outcomes, prior literature suggests that WOM itself may serve as a stimulus for further consumer action. In digital environments, consumers are highly influenced by peer-generated content such as reviews and recommendations (Donthu *et al*, 2021; Lim and Chung, 2011). Prior studies suggest that WOM can act as an interpersonal persuasion mechanism that triggers others' behavioral intentions (Hong *et al*, 2022; Morwitz, 2012). To capture this dynamic and provide a more comprehensive view of the process, this study incorporates WOM as an additional potential condition that can influence others' purchase intentions in digital storytelling contexts. To explore this dual role, we propose hypotheses that separately test its necessity and sufficiency for driving purchase intention.

H3a (Necessity): Word-of-mouth is a necessary condition to generate purchase intention.

H3b (Sufficiency): Word-of-mouth is a sufficient condition to generate purchase intention.

3. Method

3.1. Measures

The scales used were based on existing literature. The narrative structure scale was adapted from Escalas (2004); the overall brand equity scale based on Yoo *et al* (2000); the WOM scale adapted from Eisingerich *et al* (2012); the affective involvement scale based on Huang (2011); and the purchase intention scale adapted from Yoo and Donthu (2001). Respondent's gender and age, university degree, income level, number and frequency of social media used, product and brand familiarity, and product purchase frequency were included as controls.

3.2. Sample and data collection

The study used university students as participants, a group often characterized by frequent social media use and digital literacy. While most respondents were within the 18–29 age range, our focus remains on university students as an educational cohort rather than generalizing to all young consumers. These consumers are relevant to the research topic given that they prefer communicating and obtaining information online factors that are central to the study's conceptual framework (Duffett, 2017). Upon consent, participants whatched a digital storytelling campaign, and answered the questionnaire. The digital campaign was developed by a brand that operates in the fashion and footwear industry, combining fashion-forward designs with ethical production methods. The campaign followed a thematic narrative structure within the fashion lifestyle genre. It emphased the brand's commitment to style, comfort, sustainability and individuality and used an uplifting and cheerful emotional tone. A total of 220 emails was sent and 160 surveys were collected. The exclusion of surveys with missing data resulted in 135 valid answers. Most respondents were female, 18-29 years old, undergraduate students, €500-€800 income, and users of multiple social media, which they visit daily. Respondents reported to be familiar with the product (69.6%), and over half knew the brand (51.1%).

3.3. Nonresponse and common method bias

Early and late respondents were compared to assess nonresponse bias (Armstrong and Overton, 1977). No differences were found. The Podsakoff *et al* (2003) procedures were taken to minimize common method bias; respondents were unaware of the conceptual model, were warranted anonymity, and were asked to answer the questions honestly. Additionally, the Harman test showed that the first factor accounted for only 27% of the total variance and the marker variable test showed an average correlation of 0.008, suggesting no problems.

4. Results

4.1. Structural equation modeling

We first used structural equation modeling for empirical analysis, as to have a basis of comparison to our necessary conditions analysis. We started by performing a normality test to assess multivariate analysis assumptions. Following a Kolmogorov-Smirnov test which indicated that the items did not follow the normal distribution, we opted for PLS-SEM. PLS-SEM allows to test models with multiple structural paths without imposing distributional data assumptions (Dash and Paul, 2021). It involves testing the measurement model, to obtain information regarding item and internal consistency reliabilities, and the structural model, to evaluate convergent and discriminant validities (Hair *et al*, 2019).

4.1.1. Measurement model

According to the measurement model test, all variables meet the thresholds for Cronbach's alpha, composite reliability, rho_a and average variance extracted, confirming consistency reliability and convergent validity (Hair *et al*, 2019). The VIF values were below the recommended, providing no problem of collinearity (Table 1).

Insert Table 1 here.

Additionally, according to the Fornell-Larcker test (Fornell and Larcker, 1981; Table 2) and the heterotrait–monotrait ratio (HTMT; Table 3), there is discriminant validity.

Insert Tables 2 and 3 here.

4.1.2. Structural model

Following the PLS literature, we assessed the model's predictive accuracy and relevance via Stone–Geisser's Q^2 test, R^2 and f^2. The Q^2 values obtained for the endogenous variables were above zero (affective involvement: $Q^2_{Inv} = 0.14$; overall brand equity: $Q^2_{Equity} = 0.08$; WOM:

Q^2_{WOM} = 0.18; purchase intention: Q^2_{PI} = 0.04). The model explains 15% of the variance in affective involvement, 9% of the variance in overall brand equity, 54% of the variance in WOM and 36% of the variance in purchase intention. The f^2 effect sizes were between 0.016 and 0.406.

The model was tested using 5,000 bootstrap samples and 95% confidence intervals (Table 4).

Insert Table 4 here.

Results from this method support a positive relationship between narrative structure and affective involvement ($\beta = 0.39$; $p < 0.001$) and between affective involvement and WOM ($\beta = 0.45$; $p < 0.001$), but not between affective involvement and purchase intention ($\beta = 0.11$; n.s.). Furthermore, results show that the relationships regarding the cognitive path are all confirmed, namely the influence of narrative structure on overall brand equity ($\beta = 0.31$; $p < 0.001$), and of overall brand equity on both WOM ($\beta = 0.39$; $p < 0.001$) and purchase intention ($\beta = 0.54$; $p < 0.001$). A mediation test confirms mediation for all paths except for narrative structure – affective involvement –purchase intention (Table 5).

Insert Table 5 here.

4.2. Necessary condition analysis

4.2.1. Analysis of necessary conditions

Necessary conditions represent "must-have" elements that, in their absence, prevent a specific outcome, regardless of the presence of other favorable factors (Dul, 2016). To determine these factors for purchase intention, we conducted Necessary Condition Analysis (NCA) following the procedures described by Richter *et al* (2020). We first estimated the effect size *d* of the latent variables (LV) scores in PLS-SEM for the dependent variable (purchase intention). As shown in Table 6, the *d* scores of positive WOM and affective involvment are inferior to the threshold of 0.1, meaning that both constructs cannot be considered a necessary condition for

purchase intention. The test for NCA permutation revealed that only overall brand equity is significant. As such, overall brand equity can be considered a necessary condition or, by other words, a "must have" for purchase intention.

Insert Table 6 here.

The bottleneck analysis (Table 7) shows that to achieve a 50% level of purchase intention, the value of overall brand equity must have a value of at least 3.000 (in a scale from 1 to 5).

Insert Table 7 here.

For futher refinement of the results, we also conducted a fsQCA testing to identify the combinations of narrative structure, overall brand equity, affective involvement, and WOM that lead to high levels of purchase intention. This approach is ideal for analyzing complex causality and uncovering equifinal pathways, where multiple condition sets yield the same outcome (Ragin, 2009). The fsQCA process involved several steps. First, the antecedents (narrative structure, overall brand equity, affective involvement, and WOM) and the outcome (purchase intention) were calibrated into fuzzy-set scores using the direct method (Ragin, 2009). While WOM is traditionally treated as an outcome, we include it as a causal condition in fsQCA based on the understanding that in digital storytelling and social media contexts, consumer-generated WOM can act as a socially transmitted input affecting others' purchase intentions (e.g., Hong *et al*, 2022). This perspective allows the model to capture interpersonal dynamics and the cyclical nature of influence within digital communication ecosystems. Calibration converted interval-scale data into fuzzy-set membership scores based on three thresholds: the 5th percentile for full non-membership (0.05), the 50th percentile for the crossover point (0.50), and the 95th percentile for full membership (0.95) (Veríssimo, 2018). These scores, ranging from 0 to 1, reflect degrees of set membership rather than probabilities (Schneider *et al*, 2010).

4.2.2. Analysis of sufficient conditions

Second, the analysis of sufficient conditions was performed. Sufficient conditions are those that reliably lead to purchase intention levels when present (Ragin, 2009). A frequency threshold was applied, retaining combinations covering at least 80% of cases (Ragin, 2008), and a consistency threshold of 0.90 was used to identify viable configurations. The Quine-McCluskey algorithm generated three types of solutions—complex, parsimonious, and intermediate. The results are presented in table 8. Overall brand equity reached a coverage superior to 80%, but the consistency was close to the threshold to be considered a necessary condition.

Insert Table 8 here.

Finally, a truth table was created to examine all possible combinations of antecedents and their corresponding outcomes. Conditions were assessed for consistency in cases for high and low purchase intention. However, no condition met the recommended consistency threshold of 0.9 (Ragin, 2008; Schneider *et al*, 2010), indicating no single condition was necessary for purchase intention. As such, six combinations were identified as presented in table 9. where high overall brand equity was part of all the configurations for high purchase intention and low overall brand equity was part of two configurations (C4 and C6) associated with low purchase intention.

Insert Table 9 here.

4.2.3. Robustness test

For robustness test we followed the procedures of Skaaning (2011) assessing the sensitivity of the solutions by modifying this consistentcy threshold. More specifically we changed the consistency cutoff from 0.80 to 0.85. Since no changes in the configurations were observed, the results can be considered robust.

5. Discussion

Digitalization is transforming the marketing scenery (Rodgers and Thorson, 2018). Brands deal with intense competition and new consumer profiles and preferences (Herhausen *et al*, 2019). In such a setting, it becomes critical to revise brand communication approaches and consider new techniques, such as storytelling. Stories allow brands to present contents in an appealing and attention-grabbing way, transporting consumers to the story world (e.g. Hong *et al*, 2022). Such immersion facilitates consumers' information processing, as well as emotions activation (e.g., Coker *et al*, 2021; Kemp *et al*, 2021). Whereas storytelling power is recognized (e.g., Park *et al*, 2023), brands are puzzled on which narrative conversion path to focus on to boost their chances of being effective (Braddock and Dillard, 2016; Thomas and Grigsby, 2024). Building on narrative transportation theory and narrative conversion emotional and cognitive paths, this study investigates the necessary conditions to consumer behavior. A discussion concerning the study results follows.In the NCA analysis overall brand equity was identified as a necessary condition, highlighting its critical influence in shaping consumer decisions. Furthering refining the results, fsQCA failed to classify overall brand equity as strictly necessary based on consistency thresholds. This suggests that although high levels of brand equity are almost always present in configurations leading to high purchase intention, their absence does not entirely rule out the outcome. Nonetheless, its presence across all configurations leading to high purchase intention indicates its near-universal importance. Its importance is likewise validated by structural equation modelling, which confirmed overall brand equity influence on both WOM and purchase intention, being the only path conducing to the later. This dual confirmation across methodologies suggests that overall brand equity serves as a foundational element in fostering consumer behavior, further emphasizing its strategic value for brands aiming to drive purchase behavior. This is is line with the works of, for instance, Goyal and Verma (2024). When consumers perception and associations are of higher brand value, they tend to be more willing to purchase such brand. Further, when dealing

with valuable brands and in the context of storytelling campaigns, consumers may be willing to talk about such brands and their storytelling initiatives (Woodside *et al*, 2008).

The emotional path, on its hand, is not a necessary nor a sufficient condition to purchase intention, being absent in practically all configurations tested. Similarly, structural equation modelling findings were not significant on this regard. Therefore, emotional involvement plays an influential – but not essential – role in driving WOM, though it does not meet the criteria of necessity or sufficiency for purchase intention. While this is contrary to the findings of, for instance, Prentice and Loureiro (2018) or Seegebarth *et al* (2019), other studies warned about potentially distinct outcomes. For instance, Bagozzi *et al* (2016) distinguish between positive and negative emotions, which can interfere differently in the path for purchase intention. Haase *et al* (2022), on their hand, disentangled negative emotions and found that not all were conductive to consumer actions.

Still, findings indicate that this emotional path seems to índuce other – intermediate – types of consumer behaviour, namely WOM (WOM is present in four configurations to purchase intention and has a positive and significant influence in structural equation modelling). The influence of affective involvement or contribution of an emotional track to WOM is in line with the findings of Naumann *et al* (2020) or Donthu *et al* (2021).

6. Conclusion

As a conclusion, this study extends prior research on storytelling by adopting a necessary condition analysis perspective. Our findings indicate that while cognitive conversion of narratives emerge as necessary condition to purchaser intention, emotions allow consumers to become more engaged with the brand communication, but are not a key condition to instigate purchasing behavior.

6.1. Theoretical and managerial implications

This research adds to the marketing, brand, and communication literature by focusing on digital storytelling and investigating potential paths it can use to contribute to consumer behavior. The integration of NCA and fsQCA highlights the value of using complementary methods. While NCA identifies non-compensatory bottlenecks, fsQCA captures complex causal combinations. This research evidences that brand stories can assist brand value and consumer engagement. Through digital storytelling campaigns, brands can benefit from transmitting their values and information, generating consumer experience, and stimulating consumer involvement. Still, this emotional and cognitive paths lead to different types of consumer behavior. Interpreting necessity as a boundary condition and sufficiency as a route to the outcome provides a more holistic understanding of how storytelling elements contribute to consumer behavior. Accordingly, the study identifies the latter as a "need-to-have" for purchase intention. This reinforcement of the theoretical significance of overall brand equity as a critical cognitive-like factor in consumer behavior extends prior studies, confirming its influence also within the context of digital storytelling campaigns.

The use of necessary condition analysis, along with its comparison with structural equation modelling results brings an enriching perspective that contributes to deepening the understanding of a relevant concept, storytelling, and its role in consumer behavior.

For practitioners, the findings add insights that allow managers to understand that brands can use storytelling to tell brand stories and relate closely to consumers. By using digital storytelling campaigns, brands can more effectively provide consumers with insights that enhance brand strength and value. The findings particularly emphasize initiatives that strengthen overall brand equity, such as crafting compelling narratives that align with the brand’s values and resonate with consumers. Additionally, as overall brand equity consistently

emerged as integral across all high-purchase-intention configurations, brands should view investments in enhancing perceived quality, and brand associations as strategic imperatives.

Interestingly, when broadening the consumer behaviour targeted, other options emerge. If managers are planning a storytelling communication strategy that focuses on WOM-like consumer behaviors, they can involve consumers as communication and recommendation sources. This is especially valuable because other consumers are considered a more reliable and independent source than brand-controlled communication initiatives.

Overall, the use of storytelling in brand marketing campaigns, disseminated on social networks, can and should be considered a strategy for brands to implement. By adopting these strategies, especially in the present noisy communication environment, brands have the potential to overcome the congestion and establish unique brand recognition. Creating stories that convey brand personality or values can capitalize overall brand equity while captivating consumers' attention.

6.2. Limitations and future research

While this research allowed a deeper understanding of storytelling, it has limitations. First, this research opted to follow the perspective of the bright side of digital storytelling. Nevertheless, future research could analyze the potential dark side of storytelling (Junior *et al*, 2023), campaigns that had downfalls or negatively affected brands. Relatedly, the research focused on positive emotional paths. Still, stories can take consumers through different emotional stages (Merchant *et al*, 2010) and a growing number of authors is alerting to the negative side of online consumer behaviors, such as wide and vociferous spread of brand hate, anger or disappointment (e.g. Haase *et al*, 2022). Other authors highlight the importance of investigating situations when stories might backfire (Van Laer *et al*, 2019). Thus, consideration of intricate emotional paths may be a relevant research opportunity.

Second, the research used affective involvement and brand equity as emotional and cognitive paths. Future studies could examine other routes or forms, such as participation (Dessart and Pitardi, 2019), loyalty (Lou *et al*, 2019), or reputation (Kemp *et al*, 2021). Additionally, the complicated interaction among digital storytelling and emblem loyalty could be explored in a distinctive context with the use of a combined multi-approach technique. This can facilitate nuanced and contextual knowledge of observations. Using the narrative adventure and social remark theories, and making use of them to those precise projects can look at how digital storytelling affects client behavior within the marketplace area in numerous organizations.

Third, the research used consumer subjective data collected via survey. Combining survey data with brand or platform marketing insights can provide a more complete perspective regarding storytelling campaigns effectiveness on behaviors such as consumer interaction with brands, or recommendation patterns. A second pathwaw could be to use qualitative strategies, namely in-intensity interviews, together with quantitative research as it could assist identification of the emotional and psychological consequences of storytelling on brand loyalty or consumer-brand relationship. Furthermore, accomplishing facts analytics in brand industries can offer deeper insights into how storytelling may be designed to shape patron engagement and loyalty.

Fourth, the study used particular storytelling campaign. While this was a deliberate and theoretically grounded design choice, aimed at reducing extraneous variability that might arise from comparing different stories, genres, or production qualities (Escalas, 2004; Van Laer *et al*, 2014), it limits result generalizability. The same applies to the sample used. Although it reflects the profile of university consumers, relevant for digital campaigns (Duffett, 2017), it constrains generalizability. Future research can replicate the study to test the model in different contexts and with different samples. One interesting research avenue can be model testing with different categories, including comparing hedonic-related with functional/utilitarian products (e.g. Amatulli *et al*, 2020). Other value-adding investigations are the examination of the process

used to build the story, the test of different storytelling elements (e.g. characters, settings, plots; Houghton, 2023) or analysis of storytelling campaigns in different platforms (Voorveld, 2019)

Declaration of Competing Interest

The authors declare that they have no known competing interests.

References

Aaker, D. (1991) Managing brand equity: Capitalizing on the value of a brand name. New York: The Free Press.

Aaker, D. and Aaker, J.L. (2016) What are your signature stories?. California Management Review 58(3): 49-65.

Agyei-Boapeah, H., Evans, R. and Nisar, T.M. (2022) Disruptive innovation: Designing business platforms for new financial services. Journal of Business Research 150: 134-146.

Amatulli, C., De Angelis, M. and Donato, C. (2020) An investigation on the effectiveness of hedonic versus utilitarian message appeals in luxury product communication. Psychology and Marketing 37(4): 523-534.

Amit, R. and Han, X. (2017) Value creation through novel resource configurations in a digitally enabled world. Strategic Entrepreneurship Journal 11(3): 228-242.

Appel, M. (2022) Affective resistance to narrative persuasion. Journal of Business Research 149: 850-859.

Armstrong, J.S. and Overton, T.S. (1977) Estimating nonresponse bias in mail surveys. Journal of Marketing Research 14(3): 396-402.

Bagozzi, R.P., Belanche, D., Casaló, L.V. and Flavián, C. (2016) The role of anticipated emotions in purchase intentions. Psychology and Marketing 33(8): 629-645.

Boukis, A. (2023) Storytelling in initial coin offerings: Attracting investment or gaining referrals?. Journal of Business Research 160: 113796.

Braddock, K. and Dillard, J.P. (2016) Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors. Communication Monographs 83(4): 446-467.

Chaiken, S. (1980) Heuristic versus systematic information processing and the use of source versus message cues in persuasion. Journal of Personality and Social Psychology 39(5): 752-766.

Chiu, H.C., Hsieh, Y.C., and Kuo, Y.C. (2012) How to align your brand stories with your products. Journal of Retailing 88(2): 262-275.

Cobb-Walgren, C.J., Ruble, C.A. and Donthu, N. (1995) Brand equity, brand preference, and purchase intent. Journal of Advertising 24(3): 25-40.

Coker, K.K., Flight, R.L. and Baima, D.M. (2021) Video storytelling ads vs argumentative ads: How hooking viewers enhances consumer engagement. Journal of Research in Interactive Marketing 15(4): 607-622.

Coulter, K.S. and Punj, G.N. (2004) The effects of cognitive resource requirements, availability, and argument quality on brand attitudes: A melding of elaboration likelihood and cognitive resource matching theories. Journal of Advertising 33(4): 53-64.

Christodoulides, G. and De Chernatony, L. (2010) Consumer-based brand equity conceptualisation and measurement: a literature review. International Journal of Market Research 52(1): 43-66.

Cuesta-Valiño, P., Gutiérrez-Rodríguez, P., García-Henche, B. and Núñez-Barriopedro, E. (2024) The impact of corporate social responsibility on consumer brand engagement and purchase intention at fashion retailers. Psychology and Marketing 41(3): 649-664.

Dash, G. and Paul, J. (2021) CB-SEM vs PLS-SEM methods for research in social sciences and technology forecasting. Technological Forecasting and Social Change 173: 121092.

Delgado-Ballester, E. (2021) Effect of underdog (vs topdog) brand storytelling on brand identification: exploring multiple mediation mechanisms. Journal of Product and Brand Management 30(4): 626-638.

Denning, S. (2006) Effective storytelling: Strategic business narrative techniques. Strategy and Leadership 34(1): 42-48.

Dessart, L. and Pitardi, V. (2019) How stories generate consumer engagement: An exploratory study. Journal of Business Research 104: 183-195.

Dias, P. and Cavalheiro, R. (2021) The role of storytelling in the creation of brand love: the Pandora case. Journal of Brand Management 29(1): 58.

Donthu, N., Kumar, S., Pandey, N., Pandey, N. and Mishra, A. (2021) Mapping the electronic word-of-mouth (eWOM) research: A systematic review and bibliometric analysis. Journal of Business Research 135: 758-773.

Duff, B.R. and Segijn, C.M. (2019) Advertising in a media multitasking era: Considerations and future directions. Journal of Advertising 48(1): 27-37.

Duffett, R.G. (2017) Influence of social media marketing communications on young consumers' attitudes. Young Consumers 18(1): 19-39.

Dul, J. (2016) Identifying single necessary conditions with NCA and fsQCA. Journal of Business Research 69(4): 1516-1523.

Eisingerich, A., Chun, H., Yey, L., Jia, H. and Bell, S. (2012) Why recommend a brand face-to-face but not on Facebook? How word-of-mouth on online social sites differs from traditional word-of-mouth. Journal of Consumer Psychology 25(1): 120-128.

Escalas, J.E. (2004) Narrative processing building consumer connections to brands. Journal of Consumer Psychology 14(12): 168-180.

Escalas, J.E. (2007) Self-referencing and persuasion: Narrative transportation versus analytical elaboration. Journal of Consumer Research 33(4): 421-429.

Fornell, C. and Larcker, D. (1981) Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research 18(1): 39-50.

Fransen, M.L., Verlegh, P.W.J., Kirmani, A. and Smit, E.G. (2015) A typology of consumer strategies for resisting advertising, and a review of mechanisms for countering them. International Journal of Advertising 34(1): 6-16.

Fulgoni, G.M. (2014) "Omni-channel" retail insights and the consumer's path-to-purchase: How digital has transformed the way people make purchasing decisions. Journal of Advertising Research 54(4): 377-380.

Glaser, M. and Reisinger, H. (2022) Don't lose your product in story translation: How product–story link in narrative advertisements increases persuasion, Journal of Advertising 51(2): 188-205

Goyal, A. and Verma, P. (2024) The relationship between brand engagement, brand loyalty, overall brand equity and purchase intention. Journal of Strategic Marketing 32(1): 1-15.

Green, M.C., Brock, T.C. and Kaufman, G.F. (2004) Understanding media enjoyment: The role of transportation into narrative worlds. Communication Theory 14(4): 311-327.

Haase, J., Wiedmann, K.P. and Labenz, F. (2022) Brand hate, rage, anger & co.: Exploring the relevance and characteristics of negative consumer emotions toward brands. Journal of Business Research 152: 1-16.

Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019) When to use and how to report the results of PLS-SEM. European Business Review 31(1): 2-24.

Hamby, A., Brinberg, D. and Daniloski, K. (2017) Reflecting on the journey: Mechanisms in narrative persuasion. Journal of Consumer Psychology 27(1): 11-22.

Hennig-Thurau, T., Gwinner, K.P., Walsh, G. and Gremler, D.D. (2004) Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the internet?. Journal of Interactive Marketing 18(1): 38-52.

Herhausen, D., Kleinlercher, K., Verhoef, P.C., Emrich, O. and Rudolph, T. (2019) Loyalty formation for different customer journey segments. Journal of Retailing 95(3): 9-29.

Hernandez, J M.D.C., da Costa Filho, M.C.M., and Strano, M.P.V. (2023) When transparency pays off: Enticing sceptical consumers with two-sided advertising. International Journal of Consumer Studies 47(1): 317-333.

Herskovitz, S. and Crystal, M. (2010) The essential brand persona: Storytelling and branding. Journal of Business Strategy 31(3): 21-28.

Hollebeek, L.D. and Chen, T. (2014) Exploring positively-versus negatively-valenced brand engagement: a conceptual model. Journal of Product and Brand Management 23(1): 62-74.

Hong, J., Yang, J., Wooldridge, B.R. and Bhappu, A.D. (2022) Sharing consumers' brand storytelling: Influence of consumers' storytelling on brand attitude via emotions and cognitions. Journal of Product and Brand Management 31(2): 265-278.

Houghton, D.M. (2023) Story elements, narrative transportation, and schema incongruity: A framework for enhancing brand storytelling effectiveness. Journal of Strategic Marketing 31(7): 1263-1278.

Jeon, Y.A., Son, H., Chung, A.D. and Drumwright, M.E. (2019) Temporal certainty and skippable in-stream commercials: Effects of ad length, timer, and skip-ad button on irritation and skipping behavior. Journal of Interactive Marketing 47(1): 144-158.

Júnior, J.R.D.O., Limongi, R., Lim, W.M., Eastman, J.K. and Kumar, S. (2023) A story to sell: The influence of storytelling on consumers' purchasing behavior. Psychology and Marketing 40(2): 239-261.

Kemp, A., Gravois, R., Syrdal, H. and McDougal, E. (2023) Storytelling is not just for marketing: Cultivating a storytelling culture throughout the organization. Business Horizons 66(3): 313-324.

Kemp, E., Porter III, M., Anaza, N.A. and Min, D.J. (2021) The impact of storytelling in creating firm and customer connections in online environments. Journal of Research in Interactive Marketing 15(1): 104-124.

Key, T.M., Keel, A L., Czaplewski, A.J. and Olson, E.M. (2021) Brand activism change agents: Strategic storytelling for impact and authenticity. Journal of Strategic Marketing 31(7): 1339-1355.

Kim, E.(A), Ratneshwar, S. and Thorson, E. (2017) Why narrative ads work: An integrated process explanation. Journal of Advertising 46(2): 283-296.

Kitchen, P.J., Kerr, G., Schultz, D.E., McColl, R. and Pals, H. (2014) The elaboration likelihood model: Review, critique and research agenda. European Journal of Marketing 48(11/12): 2033-2050.

Kühn, S. and Boshoff, C. (2023) The role of plot in brand story construction: A neurophysiological perspective. Journal of Strategic Marketing 31(2): 471-497.

Lähteenmäki, I., Nätti, S. and Saraniemi, S. (2022) Digitalization-enabled evolution of customer value creation: An executive view in financial services. Journal of Business Research 146: 504-517.

Leonidou, L.C. and Leonidou, C.N. (2009) Rational versus emotional appeals in newspaper advertising: Copy, art, and layout differences. Journal of Promotion Management 15(4): 522-546.

Lim, H. and Childs, M. (2020) Visual storytelling on Instagram: branded photo narrative and the role of telepresence. Journal of Research in Interactive Marketing 14(1): 33-50.

Lim, B.C. and Chung, C.M. (2011) The impact of word-of-mouth communication on attribute evaluation. Journal of Business Research 64(1): 18-23.

Lou, C., Xie, Q., Feng, Y. and Kim, W. (2019) Does non-hard-sell content really work? Leveraging the value of branded content marketing in brand building. Journal of Product and Brand Management 28(7): 773-786.

Lundqvist, A., Liljander, V., Gummerus, J. and Van Riel, A. (2013) The impact of storytelling on the consumer brand experience: The case of a firm-originated story. Journal of Brand Management 20(4): 283-297.

McAlister, L., Sonnier, G. and Shively, T. (2012) The relationship between online chatter and firm value. Marketing Letters 23: 1-12.

McDougal, E.R., Syrdal, H.A., Gravois, R. and Kemp, A. (2023) Telling the tale: Applying a strategic brand storytelling process for STP planning. Journal of Strategic Marketing 31(7): 1296-1316.

Merchant, A., Ford, J.B. and Sargeant, A. (2010) Charitable organizations' storytelling influence on donors' emotions and intentions. Journal of Business Research 63(7): 754-762.

Mills, A.J. and Robson, K. (2020) Brand management in the era of fake news: Narrative response as a strategy to insulate brand value. Journal of Product and Brand Management 29(2): 159-167.

Moise, M.S., Gil-Saura, I., Šerić, M. and Ruiz Molina, M.E. (2019) Influence of environmental practices on brand equity, satisfaction and word of mouth. Journal of Brand Management 26: 646-657.

Morwitz, V. (2012) Consumers' purchase intentions and their behavior. Foundations and Trends in Marketing 7(3): 181-230.

Naumann, K., Bowden, J. and Gabbott, M. (2020) Expanding customer engagement: The role of negative engagement, dual valences and contexts. European Journal of Marketing 54(7): 1469-1499.

Oh, T.T., Keller, K.L., Neslin, S.A., Reibstein, D.J. and Lehmann, D.R. (2020) The past, present, and future of brand research. Marketing Letters 31: 151-162.

Park, C.W., MacInnis, D.J., Priester, J., Eisingerich, A.B. and Iacobucci, D. (2010) Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. Journal of Marketing 74(6): 1-17.

Park, A., Treen, E., Pitt, L., and Chan, A. (2023) Brand stories in marketing: A bibliographic perspective. Journal of Strategic Marketing 31(3): 635-654.

Pera, R. and Viglia, G. (2016) Exploring how video digital storytelling builds relationship experiences. Psychology and Marketing 33(12): 1142-1150.

Petty, R.E. and Cacioppo, J.T. (1986) The elaboration likelihood model of persuasion. In: Communication and persuasion. Springer Series in Social Psychology. Springer, New York.

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. Journal of Applied Psychology 88(5): 879-903.

Prentice, C. and Loureiro, S.M.C. (2018) Consumer-based approach to customer engagement– The case of luxury brands. Journal of Retailing and Consumer Services 43: 325-332.

Pulizzi, J. (2012) The rise of storytelling as the new marketing. Publishing Research Quarterly 28(2): 116-123.

Rodgers, S. and Thorson, E. (2018) Special issue introduction: Digital engagement with advertising. Journal of Advertising 47(1): 1-3.

Sanders, J. and Van Krieken, K. (2018) Exploring narrative structure and hero enactment in brand stories. Frontiers in Psychology 9, 1645.

Seegebarth, B., Backhaus, C. and Woisetschläger, D.M. (2019) The role of emotions in shaping purchase intentions for innovations using emerging technologies: A scenario-based investigation in the context of nanotechnology. Psychology and Marketing 36(9): 844-862.

Shahab, M.H., Ghazali, E. and Mohtar, M. (2021) The role of elaboration likelihood model in consumer behaviour research and its extension to new technologies: A review and future research agenda. International Journal of Consumer Studies 45(4): 664-689.

Shen, F., Sheer, V.C. and Li, R. (2015) Impact of narratives on persuasion in health communication: A meta-analysis. Journal of Advertising 44(2): 105-113.

Siu, N.Y.M., Kwan, H.Y. and Zeng, C.Y. (2016) The role of brand equity and face saving in Chinese luxury consumption. Journal of Consumer Marketing 33(4): 245-256.

Skaaning, S.E. (2011) Assessing the robustness of crisp-set and fuzzy-set QCA results. Sociological Methods & Research 40(2): 391-408.

Stavraki, M., Lamprinakos, G., Brinol, P., Petty, R.E., Karantinou, K. and Díaz, D. (2021) The influence of emotions on information processing and persuasion: A differential appraisals perspective. Journal of Experimental Social Psychology 93: 104085.

Sweeney, J., Soutar, G. and Mazzarol, T. (2014) Factors enhancing word-of-mouth influence: Positive and negative service-related messages. European Journal of Marketing 48(1/2): 336-359.

Thomas, V.L. and Grigsby, J.L. (2024) Narrative transportation: A systematic literature review and future research agenda. Psychology and Marketing 41(8): 1805-1819.

Van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirner, P. and Verhoef, P.C. (2010) Customer engagement behavior: Theoretical foundations and research directions. Journal of Service Research 13(3): 253-266.

Van Laer, T., De Ruyter, K., Visconti, L.M. and Wetzels, M. (2014) The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers' narrative transportation. Journal of Consumer Research 40(5): 797-817.

Van Laer, T., Feiereisen, S. and Visconti, L.M. (2019) Storytelling in the digital era: A meta-analysis of relevant moderators of the narrative transportation effect. Journal of Business Research 96: 135-146.

Veríssimo, J.M.C. (2018) Usage intensity of mobile medical apps: A tale of two methods. Journal of Business Research 89: 442-447.

Voorveld, H.A. (2019) Brand communication in social media: A research agenda. Journal of Advertising 48(1): 14-26.

Vollero, A., Schultz, D.E. and Siano, A. (2019) IMC in digitally-empowering contexts: The emerging role of negotiated brands. International Journal of Advertising 38(3): 428-449.

Woodside, A.G., Sood, S. and Miller, K.E. (2008) When consumers and brands talk: Storytelling theory and research in psychology and marketing. Psychology and Marketing 25(2): 97-145.

Yin, X., Li, J., Si, H. and Wu, P. (2024) Attention marketing in fragmented entertainment: How advertising embedding influences purchase decision in short-form video apps. Journal of Retailing and Consumer Services 76: 103572.

Yoo, B. and Donthu, N. (2001) Developing and validating a multidimensional consumer-based brand equity scale. Journal of Business Research 52(1): 1-14.

Yoo, B., Donthu, N. and Lee, S. (2000) An examination of selected marketing mix elements and brand equity. Journal of the Academy of Marketing Science 28: 195-211.

Zaichkowsky, J. (1994) The personal involvement inventory: Reduction, revision, and application to advertising. Journal of Advertising 23(4): 59-70.

Table 1. Reliability and convergent reliability tests of each variable

Variables	Items	Factor loading	Cronbach' α	Composite reliability	rho_A	AVE	VIF
Narrative structure	Struct1	0.79	0.74	0.84	0.76	0.56	1.484
	Struct2	0.81					1.557
	Struct3	0.70					1.365
	Struct4	0.70					1.434
Affective involvement	Inv1	0.93	0.94	0.95	0.94	0.89	1.562
	Inv2	0.96					1.478
Brand equity	Equity1	0.77	0.88	0.92	0.88	0.74	1.815
	Equity2	0.90					2.877
	Equity3	0.88					3.008
	Equity4	0.88					2.993
Word-of-mouth	WOM1	0.80	0.82	0.88	0.83	0.65	1.695
	WOM2	0.86					2.106
	WOM3	0.84					1.968
	WOM4	0.73					1.459
Purchase intention	PI1	0.93	0.92	0.95	0.92	0.85	2.901
	PI2	0.94					2.831
	PI3	0.91					2.937

Notes: Struct = Narrative structure, Inv = Affective involvement, Equity = Brand equity WOM = Word-of-mouth, PI = Purchase intention

Table 2. Means, standard deviations, and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Narrative structure	3.23	0.91	**0.75**												
2.Affective involvement	3.28	1.01	0.39	**0.94**											
3.Brand equity	3.73	0.87	0.31	0.35	**0.86**										
4.Word-of-mouth	3.00	0.99	0.50	0.62	0.56	**0.81**									
5.Purchase intention	3.03	0.94	0.28	0.25	0.58	0.55	**0.92**								
6.Gender	-	-	0.03	0.05	0.02	-0.09	-0.18	-							
7.Age	2.30	0.64	-0.08	0.02	0.04	0.05	0.01	-0.08	-						
8.Social media number	3.17	1.13	-0.06	-0.00	-0.04	0.02	0.00	0.17	-0.34	-					
9.Social media frequency	4.84	0.59	-0.01	0.08	-0.07	0.01	-0.02	0.06	-0.45	0.41	-				
10.Product familiarity	0.70	0.46	0.06	-0.04	0.08	0.15	0.13	-0.11	0.11	0.07	-0.02	-			
11.Brand familiarity	0.51	0.50	-0.04	-0.11	0.09	-0.03	0.24	-0.15	-0.10	0.08	0.11	0.45	-		
12.Product purchase frequency	2.51	0.91	-0.04	0.02	-0.08	0.06	0.03	-0.06	-0.02	0.07	-0.08	0.19	0.32	-	
13.Income	2.78	1.37	-0.19	-0.19	-0.12	-0.26	-0.04	0.09	0.20	0.01	-0.05	-0.02	-0.01	0.03	-
Marker	0.01	0.09	-0.07	-0.11	0.06	0.00	0.10	-0.05	-0.04	0.11	0.02	0.06	0.08	0.05	-0.11

Notes: All correlations above 0.15 are significant at 0.05; the square root of AVE is in bold on the top diagonal

Table 3. HTMT

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Narrative structure													
2.Affective involvement	0.45												
3.Brand equity	0.37	0.37											
4.Word-of-mouth	0.60	0.68	0.65										
5.Purchase intention	0.26	0.27	0.64	0.63									
6.Gender	0.09	0.05	0.04	0.13	0.18								
7.Age	0.15	0.02	0.11	0.06	0.02	0.08							
8.Social media number	0.06	0.01	0.06	0.08	0.01	0.17	0.34						
9.Social media frequency	0.05	0.08	0.09	0.06	0.03	0.06	0.45	0.41					
10.Product familiarity	0.06	0.04	0.10	0.17	0.13	0.11	0.11	0.07	0.02				
11.Brand familiarity	0.08	0.11	0.10	0.06	0.25	0.15	0.10	0.08	0.11	0.45			
12.Product purchase frequency	0.11	0.02	0.13	0.07	0.03	0.06	0.02	0.07	0.08	0.19	0.32		
13.Income	0.19	0.19	0.13	0.29	0.05	0.09	0.20	0.01	0.05	0.01	0.02		

Table 4. Hypothesis testing results

	Path coefficient	t-statistics	95% confidence intervals	
			Lower bound	Upper bound
Struct → Inv	0.39	5.26***	0.249	0.542
Struct → Equity	0.31	3.87***	0.156	0.469
Inv → WOM	0.45	6.32***	0.310	0.590
Equity → WOM	0.39	5.70***	0.258	0.529
Inv → PI	0.11	1.47	-0.034	0.254
Equity → PI	0.54	7.82***	0.394	0.663
WOM → PI	0.55	7.58***	0.443	0.755
Controls				
Gender → WOM	-0.25	1.51	-0.581	0.064
Age → WOM	0.05	0.75	-0.080	0.185
Social media number → WOM	0.06	0.90	-0.069	0.188
Social media frequency → WOM	0.03	0.34	-0.114	0.194
Product familiarity → WOM	0.32	2.20*	0.031	0.607
Brand familiarity → WOM	-0.23	1.80	-0.466	0.021
Product purchase frequency → WOM	0.05	1.08	-0.051	0.163
Income → WOM	-0.14	2.13*	-0.263	-0.013
Gender → PI	-0.44	2.51**	-0.779	-0.085
Age → PI	-0.02	0.17	-0.207	0.172
Social media number → PI	0.04	0.46	-0.145	0.221
Social media frequency → PI	-0.03	0.24	-0.239	0.191
Product familiarity → PI	-0.04	0.22	-0.418	0.318
Brand familiarity → PI	0.36	2.18*	0.040	0.687
Product purchase frequency → PI	0.02	0.31	-0.129	0.173
Income → PI	0.06	0.82	-0.087	0.210

Notes: Struct = Narrative structure, Inv = Affective involvement, Equity = Brand equity WOM = Word-of-mouth, PI = Purchase intention; Path significance: * p<0.05; ** p<0.01; ***p<0.001; The table shows the standard estimates and t-values

Table 5. Mediation test

	β	p-value	95% confidence interval	
			Lower bound	Upper bound
Indirect				
Struct → WOM	0.30	0.00	0.16	0.40
Struct → PI	0.21	0.00	0.09	0.31
Specific indirect effects				
Struct → Inv → WOM	0.18	0.00	0.09	0.28
Struct → Equity → WOM	0.12	0.00	0.12	0.21
Struct → Inv → PI	0.04	0.19	-0.01	0.11
Struct → Equity → PI	0.17	0.00	0.07	0.26
Total				
Struct → Inv	0.39	0.00	0.25	0.54
Struct → Equity	0.31	0.00	0.16	0.47
Struct → WOM	0.30	0.00	0.16	0.40
Struct → PI	0.21	0.00	0.09	0.31
Inv → WOM	0.45	0.00	0.31	0.59
Equity → WOM	0.39	0.00	0.26	0.53
Inv → PI	0.11	0.14	-0.03	0.25
Equity → PI	0.54	0.00	0.39	0.66

Notes: Struct = Narrative structure, Inv = Affective involvement, Equity = Brand equity
WOM = Word-of-mouth, PI = Purchase intention

Table 6. NCA effect sizes

Construct	CE-FDH	p-value
LV scores - Affective involvement	0.044	0.556
LV scores - Brand equity	0.138	0.000
LV scores – Word-of-mouth	0.039	0.387
LV scores - Narrative structure	0.133	0.651

Table 7. Bottleneck table (percentages)

	Purchase Intention
0.000%	1.000
10.000%	1.400
20.000%	1.800
30.000%	2.200
40.000%	2.600
50.000%	3.000
60.000%	3.400
70.000%	3.800
80.000%	4.200
90.000%	4.600
100.000%	5.000

Table 8. Necessary conditions analysis using fsQCA

	PurchInt		~PurchInt	
	Consistency	**Coverage**	**Consistency**	**Coverage**
Narrative structure	0.731	0.754	0.738	0.713
Brand equity	0.774	0.819	0.812	0.765
Affective involvement	0.660	0.777	0.792	0.679
Word-of-mouth	0.820	0.779	0.744	0.790

Table 9. Results of the intermediate solution

	High purchase intention			Low purchase intention		
Configuration	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**
Narrative structure	●	●			●	○
Affective involvement				○		
Brand equity	●	●	●	○		○
Word-of-mouth		●	●		○	●
Raw coverage	0.607	0.660	0.670	0.704	0.443	0.423
Unique coverage	0.038	0.090	0.120	0.199	0.024	0.027
Consistency	0.891	0.856	0.876	0.820	0.852	0.894
Solution coverage		0.817			0.800	
Solution consistency		0.816			0.786	

Notes: ● represents a core condition, ○ represents the absence of the condition