The Interactive Influence of Visual Perspective and Visual Content on Restaurant Diners' Processing and Response to User-Generated Videos

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Abstract:

This study investigates the interactive effects of visual perspective (first-person vs. third-person perspective) and visual content (objective information vs. subjective opinion) in user-generated videos (UGVs) on restaurant diners' information processing and behavioral responses. An online experiment was conducted with 320 participants recruited from Credamo. The findings suggest that the combination of first-person perspective and description-based content is more effective in triggering readers' immersion. The same combination can further enhance readers' narrative transportation, interest, desire and likeliness to visit the mentioned restaurant.

Keywords: user-generated video (UGV), visual perspective, visual content, immersion, narrative transportation, AIDA model.

1. Introduction

Service products in general and hospitality products (e.g., hotel accommodation, restaurant dining, spa service) in particular are known as intangible and variable by nature. Since consumers can hardly assess the quality of service products prior to the purchase, the intangible nature of service products are likely to elicit higher customer expectations and perceived risk (Bebko, 2000). Additionally, the variability of the service process result in disparate perceptions towards service products by customers (Bowen & Ford, 2004). But thanks to the emergence of different social media platforms (e.g., TripAdvisor, Red), consumers are now able to utilize user-generated content (UGC) to assess product quality, thereby circumventing the risks of making wrong decisions.

Undeniably, UGC satisfies the information needs of consumers because the first-hand experience and impartial opinions shared by past customers are reliable and helpful references for consumers to judge the quality of reviewed products/services (Li et al., 2023; Park et al., 2021). Many industry literature (e.g., Travelboom, 2025) also report the significant role played by UGC on consumers' hospitality product selection. Among the numerous types of UGC, user-generated videos (UGVs) are emerging as a dominant force in influencing consumer behavior. TikTok, for instance, has become one of the most downloaded mobile applications with over 2 billion users since its inception (Fong et al., 2024). UGVs on TikTok are now being utilized as a valuable marketing tool for enhancing viewers' brand awareness and alluring them to visit the mentioned destinations/shops/restaurants (Kumsawat et al., 2024).

Although UGVs have been widely used in the restaurant context, there is a paucity of academic inquiry about that. This is particularly evident in the absence of rigorous investigation into the impact of the distinctive attributes of UGVs on consumer decision-making process. To fill this knowledge gap, this study chooses two attributes of UGVs – visual perspective (first-person vs. third-person perspective) and visual content (objective information vs. subjective

opinion) – and examine how they interactively influence restaurant diners' information processing and post-watching responses. Based upon the analysis on data collected from an online experiment with Chinese restaurant diners, the current results are expected to provide restauranteurs with useful insights for better leveraging UGVs in promotion and marketing.

2. Literature Review

2.1. User-generated content and user-generated videos

Any type of text, information, or activity created by online users, published and shared by the same user, and having an expressive or communicative impact on an individual or in combination with other contributions from the same or other sources is considered UGC (Santos, 2021). In a business context, UGC can be seen as the totality of all ways in which people use social media (Kaplan & Haenlein, 2010). The term encompasses a wide range of media content, including ratings, reviews, articles, blogs, photographs, podcasts and videos originated from users rather than commercial entities (Hautz et al., 2014). UGV, the audiovisual format of UGCs, is an emerging trend in content creation and dissemination. Brands utilizing UGV as a tool can achieve various business objectives such as facilitating user sharing, increasing traffic to eCommerce websites, and extending brand presence across the web (Polat et al., 2023). The emergence of TikTok, an application that facilitates the dissemination of influencer-generated short-form videos, has resulted in the amassing of a substantial following. By the end of 2024, it is projected that the application's global active user population will reach approximately 1.8 billion, showcasing the vital role that UGV is taken in digital marketing (Yang et al., 2025).

2.2. Video perspective, visual content and immersion

In this study, a two-variable approach is used, with the primary variable encompassing the analysis of video perspectives from both the first-person and third-person viewpoints. In the field of literary studies, narrative perspective is essential to storytelling, significantly impacting readers' engagement and capacity for empathy (Nikolajeva, 2014). The first-person perspective is defined by the narrator being an active participant, usually the protagonist, and employing pronouns such as *"I"* or *"we"*. Conversely, the third-person perspective is narrated by an external voice using pronouns like *"he"*, *"she"*, or *"they"* – which can be either omniscient, encompassing all characters' thoughts and broader context, or limited, concentrating on a single character's viewpoint (O'Connell, 2011).

Immersion is defined as a state of deep engagement or absorption in an experience, during which individuals may lose awareness of time and their environment (Agrewal, Simon, Bech, Bærentsen, & Forchhammer, 2020). Different perspectives on narration have the capacity to influence the degree of immersion experienced by an individual across multiple levels. Zhang, Perkis, and Arndt (2017) further categorizes immersion into emotional immersion (triggered by emotional arousal and absorption in the narrative content of the story) and spatial immersion (activated by the spatial qualities of environment).

As stated by Green, Brock, and Kaufman (2006), third-person viewpoint can lead to spatial immersion by offering a more expansive perspective on the narrative realm. Van Lissa et al. (2016) echoed and supplemented that trust is affected by narrative views and third-person narratives can enhance trust to a greater extent than first-person narratives can do. Although third-person viewpoint can trigger a higher level of spatial immersion, Green et al. (2006) suggest that first-person viewpoint may enhance emotional immersion through the process of achieving synchrony between the reader's perspective and that of the protagonist. Since readers

of UGVs often search and watch those videos with the goals of seeking social assurance or credible first-hand experience, UGVs taken from first-person viewpoint are expected to induce a greater impact on their immersion. Following this notion, this study hypothesizes that: *[H1] - Visual perspective has a significant impact on readers' immersion, while first-person perspective can induce a greater impact on readers' immersion than third-person perspective.*

Besides hypothesizing that visual perspective has a significant impact on readers' immersion, this study also hypothesizes that the content of the video (i.e., subjective content vs. objective description) may provoke some indirect impact on that relationship because content and style (i.e., perspective in this study) are inherently inseparable. Hence, this study also hypothesizes that: *[H2] - The impact of visual perspective on readers' immersion is moderated by visual content.*

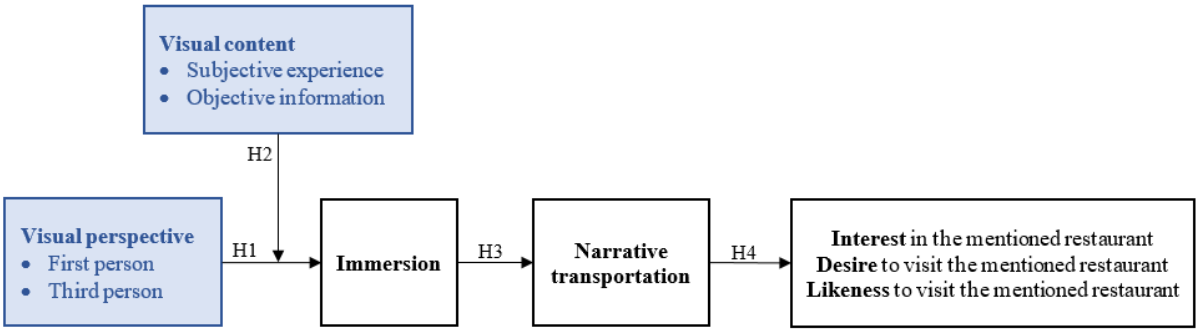
2.3. Immersion and narrative transportation

Narrative transportation is defined as the degree to which an individual becomes transported in the narrative world of a video, indicates the degree to which individuals are receptive to the concepts presented in the video. Green and Brock's (2000) seminal study demonstrated that individuals who are profoundly absorbed in a narrative are more susceptible to altering their perspectives and embracing the ideations articulated within the narration. This finding suggests that individuals' acceptance and arousal by video content are influenced by the extent of their immersion with the video content. Following this notion, the following hypothesis is proposed: *[H3] – Readers' immersion has a positive impact on their narrative transportation.*

2.4. Narrative transportation and behavioral responses

According to Escalas (2004), people's intention to pursue certain behavioral action is influenced by whether and how the stimuli (e.g., advertisements, word-of-mouth) can effectively induce their interest and desire towards the objects/actions mentioned in the stimuli. In other words, the way in which people process a stimuli/message would provoke a sequential impact on their interest, desire and action (Hassan et al., 2015). Following this notion, the last hypothesis of this study is presented as follow and Figure 1 shows the conceptual framework proposes in this study: *[H4] – Readers' narrative transportation has a positive impact on their interest, desire and likeliness to visit the mentioned place/object.*

Figure 1. Conceptual framework



3. Methodology

3.1. Research Design

To achieve the research objective presented earlier, an online experiment was conducted with Chinese mainland participants who declared that they have watched at least one restaurant-related UGV before. The online experiment was conducted using Credamo, and restaurant has been chosen as the study context because many UGVs are related to restaurant visitations and food tasting.

3.2. Experimental design

To be specific, a 2 (visual perspective: first-person perspective vs. third-person perspective) x 2 (visual content: objective information vs. subjective experience) between-subject experiment was conducted to examine the impact of intervention on experimenters (Wolery et al., 2014). Each participant has been randomly assigned to join only one condition (i.e., watching one out of four videos). After watching the assigned video, they were asked to complete an online questionnaire, and comparisons were made across all conditions rather than within the same individuals. This method is expected to help prevent issues such as order effects, carryover effects, and direct comparisons between conditions by participants, which could potentially distort the results (Erlebacher, 1977).

We implemented several precautionary strategies to mitigate response biases including promoting honest responses by ensuring participant anonymity, carefully constructing scale items to maintain clarity and specificity in questions, and steering clear of ambiguous concepts (Podsakoff et al., 2003). Furthermore, participants were randomly assigned to watch one of four video produced by us during the experiment, thereby ensuring that group differences arose from the videos rather than pre-existing participant variables, which enhances the causal validity of the study (Kuehl, 2000; Podsakoff et al., 2003).

3.3. Stimulus materials

The stimulus materials for this study are a set of short videos (length: 1 minute) about patronizing a popular restaurant locating in Hong Kong. According to OpenRice (n.d.) - Hong Kong's preeminent dining guide, the city boasts an astonishing 28,000 restaurants, with 300 to 500 new establishments emerging each month. In such a high-intensity competitive environment, restaurant owners are compelled to adopt distinctive strategies to distinguish their enterprises from their competitors, where UGVs are particularly influential (Hong Kong Local SEO Strategy For Restaurants, 2023).

For those videos taken from first-person perspective, the actor/actress held the camera and self-produced a video blog of restaurant visitation. For those videos taken from third-person perspective, an additional person held the camera and captured all actions performed by the actor/actress. Figure 2 shows the screenshot of two videos used in this study. For those videos with objective information, the actor/actress only presented factual information such as the variety of dishes presented in the menu. For those videos with subjective experience, the actor/actress added personal opinion on the food and service.

3.4. Measures

The post-reading survey encompasses questions pertinent to viewers' processing (in terms of "immersion" and "narrative transportation") and responses (in terms of "interest", "desire" and "actions" towards the mentioning restaurant) to the assigned UGV. All included questions were adapted from well-validated measures presented in prior studies. For example, the three-item measure about immersion was adapted from Huang et al. (2023). Narrative transportation was measured by utilizing the three-item scale developed by Kleemans et al.

(2014). Questions for measuring readers' interest, desire and likeliness to visit the mentioned restaurant were adapted from Kang (2022), which states that AIDA is a recognized advertising model outlining the sequential behavioral process consumers follow before making a purchase, questions about AIDA were asked to viewers to assess their interest, desire, and actions after watching. All survey questions were assessed using the 5-point Likert Scale, where responses range from 1 (representing strongly disagree) to 7 (representing strongly agree). Table 1 presents the list of all items used in this study.

Figure 2. Screenshots of two videos

A video taken from third-person perspective	A video taken from first-person perspective
	

Table 1. List of variables and measurement items

Variables / Measurement items
Immersion
I lost track of time while watching the restaurant video.
I felt mentally immersed in the restaurant's environment during the video.
I became unaware of my physical surroundings while watching the video.
Narrative transportation
I could easily picture myself in the scene of the restaurant described in the narrative.
I found it challenging to dismiss the narrative of the video, which affected me emotionally.
I can imagine the scene easily while watching the video.
Interest
I am positive when I think of the restaurant mentioned in the short video.
I like the video promotion of the restaurant mentioned.
I am interested in the restaurant mentioned in the short video.
Desire
I want to go to the restaurant mentioned in the near future.
I desire to go to the restaurant mentioned in the near future.
I wish to go to the restaurant mentioned in the near future.
Action
I intend to visit the restaurant mentioned in the near future.
I will consider visiting the restaurant mentioned in the near future.
I am willing to visit the restaurant mentioned in the near future.

3.5. Participants

A total of 320 valid responses were solicited from Credamo. All participants had watched at least one UGV about restaurant visitation over the past 12 months. The mean age of all recruited participants is 29 year old. Seventy of whom were female and earned RMB 8,000 per month 82.5% of the recruited had a 4-year college degree or above.

4. Results

4.1. Impact of visual perspective on immersion

An independent sample test was firstly conducted in order to test H1 (i.e., *The visual perspective has a significant and direct impact on readers' immersion*; *first-person perspective can induce a greater impact on readers' immersion than third-person perspective*). According to the comparison test result, visual perspective has a significant and direct impact on readers' immersion ($t = 1.771$, $p < 0.1$). The average rating on immersion given by first-person perspective group is higher than that by third-person perspective group ($M_{First} = 5.31$; $M_{Third} = 5.13$, $p = 0.07$). In other words, H1 is supported – which denotes that videos taken from first-person perspective can induce a greater impact on readers' immersion than those taken from third-person perspective.

4.2. Impact of visual perspective and visual content on immersion

Another two-way ANOVA test was conducted in order to test H2, and the comparison test results show the impact of visual perspective on readers' immersion is moderated by visual content – suggesting that H2 is supported ($F = 13.784$, $p < 0.01$; partial eta squared = 0.08).

Among those who watched videos taken from third-person perspective, participants' ratings on immersion do not differ from each other when description- and opinion-based content are presented ($M_{Third + Description} = 5.05$; $M_{Third + Opinion} = 5.21$; $p = 0.138$). Nevertheless, among those who watched videos taken from first-person perspective, participants' rating on immersion is higher when description-based content is presented ($M_{First + Description} = 5.67$). Conversely, participants' rating on immersion is lower when opinion-based content is presented ($M_{First + Opinion} = 4.96$). These results suggest that the combination of first-person perspective and description-based content is more effective in triggering readers' immersion.

4.3. Testing of conceptual framework

The regression analysis using MACRO Process model 85 was conducted to test the conceptual framework and the interrelationship among all included variables. The results demonstrated that the proposed relationship (i.e., visual perspective → immersion → narrative transportation → interest → desire → likeliness) is a significant one even when differences between conditional indirect effects were considered (Index = 0.1272; BootSE = 0.0487; 95% CI [0.0521, 0.2423]).

When opinion-based content was presented, the proposed relationship is insignificant (Effect = 0.0373; BootSE = 0.0230; 95% CI [-0.0015, 0.0885]). However, when description-based content was presented, the proposed relationship becomes a significant one (Effect = -0.0899, BootSE = 0.0361; 95% CI [-0.1742, -0.0353]). These results suggest that the combination of first-person perspective and description-based content will firstly enhance readers' immersion, and followed by elevating readers' narrative transportation, interest, desire and likeliness to visit the mentioned restaurant.

5. Discussion, conclusions and future research

This study has demonstrated that the visual perspective, as well as the content of the videos, can influence immersion, narrative traffic and interest, desire and action in AIDA model. These factors must therefore be considered when producing promotional short videos in digital marketing context. However, the results of the study have revealed that the impact of these factors differs from the initial hypotheses. Firstly, the first-person perspective does not necessarily have the best impact from a video perspective, and consumer interest in the destination is not necessarily influenced by that factor. Secondly, the pairing of third-person perspective with descriptive content led to a significant reduction in the positive indirect effect on action, suggesting a counterproductive role of descriptive narratives in this context. Thirdly, opinion content demonstrated no significant influence, indicating that it neither mitigates nor enhances the effectiveness of third-person content. Consequently, stake-holders that seek to utilize UGV or engage influencers for the purpose of short-form video promotion would be well-advised to eschew the integration of third-person narrative with objective information, in order to achieve optimal marketing outcomes that foster consumer interest and facilitate decision-making.

The limitations of the study's generalizability are evident. Despite the inclusion of 320 participants and the robust statistical results, the lack of stratified sampling by cultural background, age, or experience of narrative exposure may affect the external validity of the findings. Furthermore, the cross-sectional design makes it difficult to clarify the causal relationship between variables (e.g. immersion and temporal sequence of actions), and causal inference needs to be strengthened by longitudinal studies or experimental design. Additionally, the core variables (e.g., immersion, narrative description) were measured by self-report scales, which may not be able to comprehensively capture complex psychological states. In the future, these may be combined with behavioral indicators (e.g., eye-tracking) or physiological measurements to enhance objectivity.

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