



The Emergence of Online Visual Product Reviews: Conceptualizing Needs and Approaches to Analyzing User Generated Photography

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Many consumers today voluntarily turn to social networking or retail websites to publicly share product opinions and consumptive experiences (Klostermann et al., 2018). By publishing online reviews, consumers have the ability to share their product thoughts and involvement, impacting other consumers' product and brand perceptions (e.g., brand attitude) and consumptive behaviors (e.g., purchase intentions) (Chen & Xie, 2008; Hennig-Thurau & Walsh, 2003; Kim et al., 2018). According to one industry insight, 96% of consumers evaluate online product reviews (PowerReviews, 2016), with over 86% claiming that reviews are essential before they make a purchase decision (Nesmo, 2015). Further, 92% of consumers claim to trust consumer reviews over branded forms of advertisements (The Nielsen Company, 2012), highlighting the critical nature of consumer reviews in product and brand successes. Despite a breadth of empirical research regarding the nature of online text reviews and their impacts (Chen & Xie, 2008; Kim et al., 2018; Moon & Kamakura, 2017), a critical gap appears to exist when it comes to the analysis of consumers' *visual* photography in product reviews, a practice gaining traction among consumers when it comes to the authorship of reviews online.

Visual product reviews allow other consumers a way to imagine how a product may realistically fit into their own lives and are critical for consumers when making consumptive choices, where product attributes need to be virtually conveyed (Nesmo, 2015). According to one industry report (Millwood, 2016), consumers often consider that photos provided by a brand alone may *not* realistically depict actual products, and 54% of consumers indicated that they will postpone or abandon product purchases due to unhelpful product photos shared by a brand online. Furthermore, 32% of consumers reported being more likely to make online purchases if a brand's retail website included *real* customers' images with a product (PowerReviews, 2016). Thus, it is suggested that the inclusion of consumers' photography in a product review assists brands in boosting purchasing conversions across channels (Millwood, 2016), which provide a critical clue to understanding consumers' online consumption behaviors. An absence of discussion surrounding visual product reviews deserves to be addressed (Klostermann et al., 2018); however, we speculate this lack of discussion hinges on the inherent methodological difficulties posed by visual data analyses. Thus, the purpose of this conceptual study is not only to highlight how visuals can shift the focus and enhance communication among consumers, but to also challenge researchers to find appropriate methodological approaches in analyzing user generated photography of online reviews.

New online functions introduced by retailers like Amazon within the last several years have allowed users to upload personal photography with traditional text product reviews, shifting

communication strategies about products among consumers. Additionally, consumers can share visual product reviews on social media networks; many consumers discuss product and brand information on social media networks where self-publishing photography is the norm (e.g., Instagram). Although consumer photography appears to be an emerging and essential feature of what we know of as an online product review, few studies have attempted to analyze visually communicated aspects. In one seminal study, Liu et al. (2018) attempted to classify Instagram users' product/brand photography to measure brand attributes. Authors methodologically categorized a large pool of consumer photography as symbolically communicating brand-related features (e.g., ruggedness, glamour, health, fun). Similarly, they then categorized brand photography posted to brand Instagram accounts. Machine and deep learning techniques were used to classify if consumers' brand perceptions matched or mismatched brands' perceptions of their own identity. Findings revealed where consumers' visual perceptions of brands converged or defied identity perceptions brands were hoping to communicate through their Instagram. Klostermann et al. (2018) used application programming interface (API) technology to classify attributes in consumers' Instagram posts to create data clusters unique to visual content (e.g., food, people) and contexts (e.g., picture taken at a store, selfies with product) of brand-related images. Big data clusters were used to generate visual maps that convey how consumers perceive, experience, and interact with brands on Instagram through self-published photography.

To the best of our knowledge, Liu et al. (2018) and Klostermann et al. (2018) provide the only academic studies that approach the analysis of online user generated photography related to products and brands. Although these studies offer us preliminary ways to understand product and brand photography generated by users, they fail to operationalize visuals in the product review domain. Important insights to how visuals shift consumers' communication about products and brands online are missed. The focus on visuals produced solely on Instagram, although pertinent, forgoes a focus on traditional product reviews with visuals found on retail websites. Furthermore, both studies employ large data samples to survey general perceptions/attributes regarding product and brand photography. Doing such limits any one product category or novel insights derived from selective samples, imperative at the exploratory stage of this phenomenon.

In assessing future directions for analyzing user generated photography in online consumer reviews, we offer a few perspectives that may highlight current needs. In lieu of the systematic big data analyses seen in both aforementioned studies, we suggest initiating the exploration of this phenomenon using a grounded theory approach which may reveal nuanced socio-cognitive insights regarding the phenomenon overlooked by a sheer volume of data (Boyd & Crawford, 2012). Important questions are currently missed in the extant literature, which can be addressed through the use of emergent methods; for example, what properties make consumers' product and brand communication via photography unique to the visual product review domain? Furthermore, given the socially communicative nature of online environments, understanding socio-cognitive antecedents related to those consumers that primarily post photography with product reviews may provide a critical piece in the overall nature of visual product reviews. Certain questions missing from the extant literature related to this notion include what social (e.g., consumer altruism, self-interest) or cognitive (e.g., need for

information) motivations precede consumers in posting visuals with reviews. Approaching visuals with exploratory methods such as semi-structured interviews with consumers to address such questions could strengthen the social-psychological backbone of the visual product review phenomenon, needed in this onset.

Visuals are symbolically and communicatively rich, and thus can undoubtedly be difficult to study (Rose, 2015); however, their importance to brand managers' evaluations of product and brand success are evident by industry insights. One such summative insight highlighted that consumers actually prefer product reviews that contain consumer photography at least 50% of the time over text-based product reviews, and further, when making consumptive choices, consumer generated photography is preferred over brand photography almost 85% of the time (Heller, 2019). Although the era of visual product reviews have just begun, their importance is already paramount, and thus a critical dialogue is needed. This study offers some perspective and urges researchers to turn a critical eye to the emergence of visual product reviews by searching for representative approaches in exploring and analyzing visual data in today's online consumer environment.

References

- Boyd, D., & Crawford, K. (2012). Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication, & Society*, 15(15), 662-679.
- Chen, Y., & Xie, J. (2008). Online consumer review: Word-of-mouth as a new element of marketing communication mix. *Management Science*, 54(3), 477-491.
- Heller, L. (2019, February 21) *A retail dilemma: Consumers believe in pictures as digital trust declines*. Forbes. <https://www.forbes.com/sites/lauraheller/2019/02/21/a-retail-dilemma-consumers-believe-in-pictures-as-digital-trust-declines/#f1ed95e36787>
- Hennig-Thurau, T., Walsh, G., & Walsh, G. (2003). Electronic word-of-mouth: Motives for and consequences of reading customer articulations on the Internet. *International Journal of Electronic Commerce*, 8(2), 51-74.
- Kim, S. J., Maslowska, E., & Malthouse, E. C. (2018). Understanding the effects of different review features on purchase probability. *International Journal of Advertising*, 37(1), 29-53.
- Klostermann, J., Plumeyer, A., Böger, D., & Decker, R. (2018). Extracting brand information from social networks: Integrating image, text, and social tagging data. *International Journal of Research in Marketing*, 35(4), 538-556.
- Liu, L., Dzyabura, D., & Mizik, N. (2018, February). *Visual listening in: Extracting brand image portrayed on social media* [Paper presentation]. The Workshop Program at the Thirty-Second AAAI Conference on Artificial Intelligence 2018, New Orleans, Louisiana. <https://aaai.org/ocs/index.php/WS/AAAIW18/paper/view/17094/15551>
- Millwood, A. (2016, October 11). *Upgrade your visual marketing with user-generated photos*. Yotpo. <https://www.yotpo.com/blog/visual-reviews/>

- Moon, S., & Kamakura, W. A. (2017). A picture is worth a thousand words: Translating product reviews into a product positioning map. *International Journal of Research in Marketing*, 34(1), 265-285.
- Nesmo, A. (2015, June 12). *Going visual: Why you need images in review content*. Power Reviews. <https://www.powerreviews.com/blog/going-visual-why-you-need-images-in-review-content/>
- PowerReviews (2016, August 11). *Why apparel companies need images in review content*. Olapic. <https://www.olapic.com/resources/why-apparel-companies-need-images-in-review-content-plaw-glli-flpc-vlre/>
- Rose, G. (2015, September 25). Visual research methods in an expanded field: What next for visual research methods? <https://visualmethodculture.wordpress.com/2015/09/25/visual-research-methods-in-an-expanded-field-what-next-for-visual-research-methods/>
- The Nielsen Company (2012, April 10). *Nielsen: Global consumers' trust in 'earned' advertising grows in importance*. <https://www.nielsen.com/us/en/press-releases/2012/nielsen-global-consumers-trust-in-earned-advertising-grows/>