How Many Is Too Many: An Examination of Images in Electronic Word of Mouth

Robert Zinko Prairie View A&M University

Christopher P. Furner East Carolina University

Recent work in electronic Word of Mouth (eWOM) has examined the influence of adding images to text reviews of products on consumer outcomes. This study advances the eWOM paradigm by exploring how many images are needed in a review in order to best affect consumer outcomes A simulation-based experiment was conducted, and hedonic and utilitarian reviews were presented with an increasing number of images. Inconsistent with the hypotheses expectations, the results showed no advantage in adding additional images to hedonic or utilitarian reviews. The outcomes show that more images do not necessarily result in better outcomes than fewer images.

Keywords: electronic word of mouth, online reviews, e-commerce, consumer behavior, purchase intention, images

INTRODUCTION

Consumers share more than half a million pieces of content every minute (Hoffman & Daugherty, 2013), many of which are images (i.e., pictures). As 'seeing is believing' these images are often viewed as more reliable and convincing than text (Chowdhury, Olsen, & Pracejus, 2008). This is not surprising; as humans are visual creatures, an extortionary amount of weight is placed on what we see (i.e., as opposed to input from other senses) (Gregory, 2015).

When considering online product reviews, popular platforms such as Tripadvisor.com can host as many as half a billion reviews (Tripadvisor.com, 2017); sites such as these often allow reviewers to post images and text-based reviews. Although the increase of available information provides consumers with more options (King Racherla, & Bush, 2014); reviewers also add more and more information for consumers to absorb, regardless of readers often being over loaded with such electronic information. This overload can result in confusion, cognitive strain, reduced confidence and less satisfaction (Keller & Staelin, 1987).

This study examines images in the context of online reviews to better grasp the extent to which online product reviews are affected by diminished returns concerning attached images. In doing so, we present a textual review, with an increasing number of images, in hopes of determining the point at which adding additional images adds no value (i.e., and may reduce the effectiveness) of a review. Essentially, we examine how many images is too many.

Online Reviews

Word-of-mouth (WOM) has traditionally been considered vital for new product diffusion. As such, researchers agree that WOM is typically more effective than traditional marketing such as advertising and personal selling (Srinivasan, Anderson, & Ponnavolu, 2002). With the advent of the Internet, WOM is taken on a new significance (now referred to as eWOM, electronic word of mouth). The internet allows consumers to reach beyond their circle of immediate friends and family about a product or service, as they can share their opinions with a larger body of individuals. Furthermore, they can disseminate this information with little time or effort (i.e., as opposed to repeated conversations with friends and family via traditional WOM). Likewise, typically, individuals who intend to purchase a new product or service that they cannot get first-hand knowledge of (e.g., hotel rooms) will turn to the internet to gather data. As online reviews continue to be a main source of information for consumers regarding products and services, customers and companies see great value in these platforms (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). As such, examining these platforms continues to be a widely studied area of research.

The Importance of eWOM

When consumers research via eWOM, it is typically to better understand a product or service in anticipation of a potential purchase (Cantallops & Salvi, 2014). They evaluate the review to not only learn about the product, but also consider aspects of the review itself. Indeed, consumers know that not all reviews are legitimate, and that occasionally companies post fake reviews of their products (i.e., or that of their competitors) (Ahmad & Sun, 2018). Additionally, researchers suggest that beyond simply purchase intent, it is often useful to examine trust and perceived information quality (e.g., Furner et al, 2014, Yoo, Kim, & Sanders, 2015). As such, this study acknowledges existing research in the field by examining well-established outcomes (i.e., trust, perceived information quality, and purchase intention) to achieve a more robust understanding of the eWOM assessment process.

Trust generally refers to the degree of comfort one feels when another party's potential actions carry some predictability (Mayer, Davis, & Schoorman, 1995), and has been shown to link to purchase intention (Bataine, 2015). Likewise, research into information quality has also shown it to be linked to purchase intentions (Nabi & Hendriks, 2003); as well as trust (Dellarocas, Zhang, & Awad, 2007) and adoption of information (McKnight & Kacmar, 2006). As the goal of reading reviews is to mitigate uncertainty about the ability of a product or service to meet a specific need, and since reviews vary in terms of information quality (Keith et al., 2013, Furner et al., 2016), consumers must take a holistic view, considering both trust and information quality, to best assess how the review plays into their purchase intent.

Information Load

When researchers explore the topic of information overload, they typically concentrate on information formatting and summarization (e.g., Agnew & Szykman, 2005) or text length (e.g., Furner, Zinko, & Zhu, 2016). Likewise, factors such as the ease of navigation of webpages, summarization, and reduction of choices are often studied (e.g., Furner & Zinko, 2017). Although there has been recent interest in information quality (e.g., Erkan & Evans, 2016) in the areas of social media eWOM; to date, an extensive search of the literature results in no findings that apply information levels to images attached to online reviews. This is surprising, as images often can represent a more objective and richer source of information than the descriptions provided in text. Although research shows that images increase trust and intent to purchase when added to a text-based review (e.g., Pieters & Wedel, 2004), what is unknown is the number of images that are appropriate.

This study attempts to answer the research question: at what point do images become excessive? In order to address this question, a scenario-based experiment is conducted in which an increasing number of images are presented at the bottom of a text review. A hedonic product (a Jeep) and a practical product (a minivan) are examined.

The Use of Images

Images, often referred to as pictures, have frequently been used in combination with print to provide a richer example of what is being discussed in a text (Childers & Houston, 1984). Adding images to text results in the ability to acquire the reader's attention more quickly than print alone, as the images allow the information to be more rapidly understood and absorbed (Gerrig, Zimbardo, Campbell, Cumming, & Wilkes, 2011). The effectiveness of adding images to print has long been studied in print media streams. Images have been shown to affect everything from how large portions of the population are viewed (e.g., Brenner, 1999) to developing trends (e.g., Orcutt & Turner, 1993).

Through classical conditioning (see Olson & Fazio, 2001 for a review of classical conditioning), a linking of the image, text, and actual product occurs (i.e., sometimes without conscious knowledge) (Olson & Fazio, 2001), resulting in a more positive assessment of the product or service (Fazio, 2001). When images are added to eWOM, it can be argued that the effects they will have on trust, purchase intention, and perceived information quality may be even greater than that of images being added to advertisements, as eWOM is a more trustworthy source by consumers (Mauri & Minazzi, 2013).

As these images are linked to the text and product, researchers such as Hoffman and Daugherty (2013) have used eye-tracking software to demonstrate how individuals who followed Pinerest reacted to the visual elements in social media, and how those visual elements influence consumer attention. Studies such as this and others in the area (e.g., Daugherty & Hoffman, 2014) present a solid argument for the importance of images in eWOM.

Diminished Returns

As one might expect, there is extensive research that deals with advertising in regard to print media and images. Print media focusing on a low copy to picture ratio are primarily pictorial advertisements. As print media space is expensive (i.e., as opposed to web space, which is virtually unlimited and relatively inexpensive) there has been a fair amount of study examining how many images are needed. Excess images are referred to as "clutter" (Singh, Lessig, Kim, Gupta, & Hocutt, 2000).

Chowdhury, Olsen, and Pracejus (2011) examined images in marketing in the context of negative and positive valance. When both positive and negative images were presented, increasing one or the other (e.g., presenting more positive or negative) affected readers' overall assessment. Alternatively, adding additional images did not make a difference if the images were consistently positive or negative.

Print media research notwithstanding, the application of such findings to eWOM can only be taken so far. Consumers who turn to eWOM (i.e., as opposed to examining marketing produced by a company about their product) approach eWOM with a different mindset that when viewing advertising. Indeed, perceived source credibility and trust significantly differ when consumers view eWOM over marketing (M. Lee & Youn, 2009). Furthermore, consumers are often able to relate to the individuals who wrote the review. As such, an additional bonding between reviewer and reader may occur, resulting in increased purchase intention (Forbes, 2016). That being said, Furner et al. (2016) showed that negative outcomes (e.g., perceived information quality, purchase intent) can occur when presented with too much information in an online review.

In applying the theory of diminished returns to images in eWOM, although adding images has been shown to increase positive outcomes (e.g., Zinko, Heyden, Furner, & Dalton, 2017) one would assume that at some point, adding additional images would not only no longer affect positive outcomes, but possibly reduce those desired results.

Information Overload

Consumers are often presented with large amounts of information to the point where they cannot effectively assess, categorize, and store all of it. As such, they can experience information overload. Defined as the situation that occurs when a decision maker receives more information than they can process at any given time, the phenomenon usually occurs when a consumer believes that the cost of processing the information exceeds the additional value gained from those information processing efforts (Eppler &

Mengis, 2004). Being presented with excessive information can result in confusion, cognitive strain, reduced confidence and less satisfaction (Keller & Staelin, 1987).

Readers' responses to being overloaded with information are typically the same for when communication channels are one-way (as is the case in most eWOM). Decision makers tend to systematically ignore (i.e., filter) some features of the input or stop reading (Hiltz & Turoff, 1985). Although it is not difficult to skip over too many images, being presented with too much information still typically results in negative outcomes (e.g., Furner & Zinko, 2017). Information overload also can result in a feeling of annoyance by the reader (Hiltz & Turoff, 1985), and as such would likely result in a negative perception of the review.

Hypothesis 1a: There is a curvilinear relationship between the number of images in a review and trust, such that additional images increase trust, until the diminishing returns associated with multiple images starts to reduce trust.

Hypothesis 1b: There is a curvilinear relationship between the number of images in a review and perceived information quality, such that additional images increase perceived information quality, until the diminishing returns associated with multiple images starts to reduce perceived information quality.

Hypothesis 1c: There is a curvilinear relationship between the number of images in a review and purchase intention, such that additional images increase purchase intention until the diminishing returns associated with multiple images start reducing purchase intention.

Image Variety

Consumers look at images for the same reason they read the text when examining reviews. They are seeking information that can reduce their uncertainty about the ability of a given product or service to meet one of their needs. As such, although research has shown that adding images is generally beneficial (e.g., Zinko et al., 2017), it can be argued that when images provide no new information, they will be of little benefit to the consumer. When considering mixed images, evidence suggests that the most extreme image is the side of the overall response (Chowdhury et al., 2008). This suggests that if a review has multiple pictures that vary in nature, there is a wider opportunity to have one of those images stand out.

Likewise, advertising research has shown that adding additional images must produce higher mental images (i.e., which will contribute to better encoding of the verb arguments presented in the text) in order to create any benefit. Additional pictures that add no information are referred to as "peripheral pictures" and offer no additional information (Singh et al., 2000). As such research has shown that a reader will lose interest and pay less attention to the additional, peripheral pictures (Burke & Srull, 1988). Therefore, it can be assumed that consumers will likely desire more images when the images continue to produce new information (e.g., other aspects of an automobile or other product).

Hypothesis 2a: The point of diminished returns for trust will be greater (i.e., more images) when presenting varied images, then similar images.

Hypothesis 2b: The point of diminished returns for perceived information quality will be greater (i.e., more images) when presenting varied images, then similar images.

Hypothesis 2c: The point of diminished returns for purchase intent will be greater (i.e., more images) when presenting varied images, then similar images.

Hedonic vs Utilitarian in eWOM

As products are typically seen as being of hedonic or utilitarian value (Sen & Lerman, 2007), consumers often research each in a different manner. Pleasure and emotion are typically the major drivers behind the purchase of hedonic products (Hirschman & Holbrook, 1982). On the other hand, utilitarian products are

those that are deemed essential to achieving a goal or completing a practical task (e.g., laundry detergent and tools) (Dhar & Wertenbroch, 2000). Some products, such as vehicles and hotels, can be seen as either hedonic or utilitarian (i.e., depending on how the consumer views them) (Batra & Ahtola, 1991).

As utilitarian products do not inspire or cause great emotion, research suggests that plain text may be sufficient to translate information to buyers with certain products. The Verbal Additive Paradigm proports that when consumers deliberate the purchase of utilitarian products, information is processed in a rational, linear manner, and as such, sufficient information can often be gleaned from text (Holbrook & Moore, 1981).

Alternatively, dual-coding theory and the Consciousness–Emotion–Value (CEV) model of the consumption experience suggest that the consumption experience can be intrinsically pleasing when it pleasures the senses, fun, feelings, and fantasies (Holbrook, 1984). Hirschman and Holbrook (1982) argued that these forms of enjoyment were a hedonic value of the consumption experience, differing from utilitarian value. These emotional drives have been repeatedly linked to images across the sciences (e.g., Ashforth & Humphrey, 1995; e.g., Hackley, 2003; e.g., Quirk & Strauss, 2001). As such, images are more important to hedonic than utilitarian purchases.

Based on existing advertising theory (e.g., Joy, Sherry, & Deschenes, 2009), conceptual blending is how consumers develop meaning from text and images based upon their cultural understandings. This is the idea of "interconnectedness" of semantic memories that allow consumers to assign meaning to input. In doing so, it can be argued that consumers will view images presented to them and link those images to their aspects own lives, coming up with their meaning for the image. Since humans are primarily visual learners, it can be argued that adding images to text-based reviews would aid in this learning process by giving a more robust characterization of the product or service thanks to the visual input. When considering hedonic images, conceptual blending is even more significant in allowing consumers to imagine what could be.

Hypothesis 3: Consumers will prefer more images for hedonic products than for utilitarian products.

METHODS

In order to test the hypotheses, a simulation-based experiment was conducted (Furner & George, 2009). This section outlines the methods of that experiment.

Study Design

Web-based simulations were used to test the hypothesis. This long-standing style of examination has been used across several areas of study such as management, psychology, finance and accounting (e.g., Bent and Van Hentenryck, 2004; Johansson et al., 1999; King et al., 2003). This style of investigation is so effective because it allows for the control of environmental variations by facilitating an equivalent standard across study groups. The protocol developed by Potts (1995) was utilized, in which a scenario-based simulation experiment required participants to interact with a mock-up of the webpage that presented user reviews.

The auto industry was chosen because vehicles can be viewed as both hedonic and also utilitarian (e.g., Lee, 2007). Additionally, although individuals can inspect vehicles before purchase, after several years problems often arrive in automobiles. A quick test drive and an inspection on such a large purchase is often ineffective in reducing the uncertainty associated with the purchase. As such, individuals often search for additional information online (Sismeiro & Bucklin, 2004).

All study participants were asked to read 1 of 40 possible scenarios developed for this study (see Appendix A for sample of the reviews presented). Twenty of those reviewed a Jeep. Of those, half were a variety of images, while the other half we of similar images. Both the text and the pictures reflected the Jeep as a hedonic purchase. The text was consistent for all scenarios, only the pictures changed.

In the first scenario, there were four images of the Jeep, in the second scenario there, an additional 2 pictures of the side of the Jeep were added to the scenario (i.e., 6 images). This continued with, 8 images,

10 images and 14 images; all similar in that they showed the external side of the Jeep. A second series of Jeep scenarios with the same text but every two pictures were varied. Instead of 4 images being similar, the first two pictures were of the side of the Jeep, along with two pictures of the engine. Like before, this continued with six pictures, eight pictures, 10 pictures and 14 pictures; each time, adding two different images (i.e., so the individual who saw the review with six images saw two of the side, two of the engine, and two of the gauge cluster in the dashboard). Essentially, subjects were asked to give their opinion about the scenario; the only variation was the pictures. Similarly, the minivan (i.e., a practical purchase) scenarios were also set up this way. A manipulation check was performed to ensure the subjects considered the images (i.e., how many images were present).

After reading the review, subjects were asked to answer several questions regarding trust, information quality and purchase intent. They were also asked about demographics.

Measurement Instrument Development

Consistent with the norms of measurement instrument development in this area (e.g., Liu et al., 2007), three academic experts familiar with the marking literature were asked to evaluate the scenarios based on hedonic and utilitarian definitions. They were able to classify the two scenarios with 100% success. The panel members agreed that the underlying themes and scenarios did in fact reflect the intended constructs of hedonic and utilitarian product categories.

As stated above, the series of items that the subjects were asked to respond to that followed the scenarios were adapted from Furner et al. (2016), used to measure trust (i.e., please indicate the extent to which you trust this reviewer), information quality (i.e., how would you rate the quality of this information) and purchase intent (i.e., based on this review, how likely are you to purchase a Jeep). All survey items were measured on a 7-point Likert-style scale. For the scenarios that had images, an additional question of "what percentage of your decision was based upon the images" was added as a manipulation check. Additionally, demographics were collected.

Subjects

Amazon.com's mechanical Turk (MTurk) was used to recruit the participants. The use of MTurk has not only been shown to be more representative of the U.S. population than most samples of convenience (Berinsky, Huber, & Lenz, 2012), but also has been shown to often be more accurate than other forms of survey collection (Casler, Bickel, & Hackett, 2013; Hauser & Schwarz, 2016; Paolacci, Chandler, & Ipeirotis, 2010). MTurk data has been used in top marketing journals such as the *Journal of Marketing* (e.g., Luo & Toubia, 2015; Roggeveen, Grewal, Townsend, & Krishnan, 2015) and the *Journal of Marketing Research* (e.g., Laran, Janiszewski, & Salerno, 2016; Yoon & Kim, 2016).

Results

Data were analyzed using IBM SPSS Statistics version 23. For collection 1 (i.e., the Jeep reviews) Box's M was found to not be significant (F=1.423, df1=66, df2=590684.785, p=.014). This is expected due to the unequal sample sizes. As such, Pillai's Trace (i.e., as opposed to Wilks' Lambda) is reported as 0.051 (F=1.263, p=0.145) (Tabachnick, Fidell, & Osterlind, 2001). Likewise, for collection 2 (i.e., the Minivan reviews) Box's M was also found to not be significant (F=0.961, df1=66, df2=565450.298, p=.566). Pillai's Trace is reported as 0.061 (F=1.405, p=0.063).

As Table 1 below shows, the addition of images, regardless of being similar or different, and also irrespective of being a hedonic or utilitarian product, did not result in any discernible pattern of chance in the means.

TABLE 1
DESCRIPTIVE STATISTICS

Hedonic or Utilitarian	Type of Images			Trust		Information Quality		Purchase Intent	
		No. of Images	N	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Hedonic	Similar	4	72	4.96	1.283	4.62	1.569	4.36	1.559
		5	72	5.04	1.305	4.93	1.346	4.5	1.653
		8	86	5.14	1.17	5.06	1.409	4.3	1.511
		10	58	4.86	1.191	4.66	1.384	4.17	1.353
		12	62	4.89	1.32	4.81	1.458	4.11	1.621
		14	56	4.71	1.461	4.86	1.542	4.36	1.394
пецопіс		4	96	4.7	1.232	4.59	1.373	3.92	1.547
	Vorvina	5	65	5.28	1.244	5.28	1.398	4.82	1.657
		8	58	5.16	1.04	4.97	1.401	4.6	1.533
	Varying	10	67	4.99	1.249	4.99	1.365	4.51	1.397
		12	62	4.87	1.361	4.81	1.545	4.06	1.608
		14	56	4.95	1.227	4.88	1.585	4.11	1.648
		4	65	4.83	1.42	4.85	1.554	4.06	1.828
		5	65	5.02	1.231	4.89	1.393	4.03	1.649
	C::1	8	55	4.85	1.339	4.6	1.571	3.93	1.804
	Similar	10	66	4.18	1.477	4.08	1.552	3.59	1.771
		12	59	5.02	1.42	4.73	1.472	4.17	1.743
**		14	53	4.58	1.562	4.47	1.564	4.47	1.564
Utilitarian —		4	71	4.15	1.349	4.21	1.621	3.61	1.634
		5	60	4.83	1.392	4.88	1.497	3.92	1.844
	Varying	8	67	4.64	1.356	4.57	1.653	3.81	1.635
		10	62	4.73	1.357	4.68	1.376	3.97	1.609
		12	68	5	1.382	5.12	1.299	4.18	1.573
		14	63	4.73	1.428	4.68	1.522	3.75	1.665

Likewise, Table 2, which shows the results of the ANOVAs shows mixed (i.e., primarily negative) results.

TABLE 2 TESTS OF BETWEEN-SUBJECTS EFFECTS

Collection 1 (He	donic)					
		Sum of Squares	df	Mean Square	F	Sig.
Trust	Between Groups	18.639	7	2.663	1.766	0.09
	Within Groups	794.755	527	1.508		
	Total	813.394	534			
Information Quality	Between Groups	26.163	7	3.738	1.849	0.08
	Within Groups	1065.415	527	2.022		
	Total	1091.578	534			
Purchase Intent	Between Groups	9.950	7	1.421	0.625	0.74
	Within Groups	1197.986	527	2.273		
	Total	1207.936	534			
Collection 2 (Uti	litarian)					
		Sum of Squares	df	Mean Square	F	Sig.
Trust	Between Groups	15.864	5	3.173	2.092	0.07
	Within Groups	603.651	398	1.517		
	Total	619.515	403			
Information Quality	Between Groups	19.533	5	3.907	1.889	0.10
	Within Groups	822.890	398	2.068		
	Total	842.423	403			
Purchase Intent	Between Groups	45.098	5	9.020	3.690	0.00
	Within Groups	972.843	398	2.444		

Finally, pairwise comparisons would typically be shown, but not only were the ANOVA results shown to not be significant (see Table 2 above), but the pairwise comparisons reflected the lack of effect that the number of images has on the outcomes. Because the pairwise comparisons presented no useful information, and to include them would take up an excessive amount of space (i.e., as there were more than 200), the reporting of this data was omitted.

DISCUSSION

Responding to a call from Zinko et al. (2020), this study attempts to find a point of diminishing returns, wherein the data could show that a specific number of images for either hedonic or utilitarian products could be found. In order to do this, reviews for both Jeeps (hedonic) and minivans (utilitarian) products were presented. Interestingly, the data did not support any of the hypotheses. Instead, the research showed that any number of images (i.e., from 4 to 14) have the same (or lack of) effect on all desired outcomes (i.e., trust, perceived information quality, and purchase intent).

Essentially, this data suggests that reviewers do not need to post a specific number of images to get better outcomes, but rather as long as images are present, positive outcomes can be gained. This suggests that the inclusion of additional images did not produce additional, higher mental images, and were simply seen by the consumer as "peripheral pictures" and as such offer no additional information (Singh et al., 2000). This caused the reader to lose interest (Burke & Srull, 1988). Such an outcome results in 1) extrapolations of the findings that the number of images is not significant and 2) to explore possible issues with the methods used in testing the hypotheses.

As stated above, the findings suggest that increasing the number of images presented (i.e., weather a variety of images, or similar images) do not affect the measured outcomes. This is significant for both platform developers and reviewers. It suggests that the addition of extra images is essentially a sunk cost, and nothing is to be gained by it. Reviewers do not need to take the time to post a variety of images, and platform developers may not find value in providing large amounts of space for image posting (i.e., although as reviewers may not be aware of these findings, it may still be in the best interest of platform developers to continue to provide large amounts of space, as it may be viewed positively by reviewers).

That being said, the reasoning for such an outcome may be due to the products that were used. Images of both minivans and Jeeps are not only easily accessible on the internet, but relatively known products. Likewise, these items are known to be consistent across the products (i.e., all Jeeps have the same dashboard). The decision to use the vehicle (i.e., as opposed to a different product) did build in some controls (i.e., they are both vehicles), but might have resulted in outcomes that lack generalizability across products. Indeed, a more productive product to review might have been hotel rooms. Although all hotel rooms have the same essential items, they are often presented with different levels of attractiveness (e.g., some are outdated or not properly cleaned).

Finally, the collection began with 4 images the same and 4 different, and then went up from there. Perhaps examining reviews with 2 images the same and 2 different may result in a dissimilar outcome. This realization notwithstanding, such results would not significantly increase our knowledge of in the area, as once the images reached 4, the data would reflect that no additional images were needed. Regardless, further research into the topic (i.e., with other products) is strongly suggested.

REFERENCES

- Agnew, J.R., & Szykman, L.R. (2005). Asset allocation and information overload, the influence of information display, asset choice, and investor experience. *Journal of Behavioral Finance*, 6(2), 57–70.
- Ahmad, W., & Sun, J. (2018). Modeling consumer distrust of online hotel reviews. *International Journal of Hospitality Management*, 71, 77–90.
- Ashforth, B.E., & Humphrey, R.H. (1995). Emotion in the workplace: A reappraisal. *Human Relations*, 48(2), 97–125.
- Batra, R., & Ahtola, O.T. (1991). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters*, 2(2), 159–170.
- Berinsky, A.J., Huber, G.A., & Lenz, G.S. (2012). Evaluating online labor markets for experimental research: Amazon.com's Mechanical Turk. *Political Analysis*, 20(3), 351–368.
- Brenner, S. (1999). On the public intimacy of the new order: Images of women in the popular Indonesian print media. *Indonesia*, (67), 13–37.
- Burke, R.R., & Srull, T.K. (1988). Competitive interference and consumer memory for advertising. *Journal of Consumer Research*, 15(1), 55–68.
- Cantallops, A.S., & Salvi, F. (2014). New consumer behavior: A review of research on eWOM and hotels. *International Journal of Hospitality Management*, *36*, 41–51.
- Casler, K., Bickel, L., & Hackett, E. (2013). Separate but equal? A comparison of participants and data gathered via Amazon's MTurk, social media, and face-to-face behavioral testing. *Computers in Human Behavior*, 29(6), 2156–2160.
- Childers, T.L., & Houston, M.J. (1984). Conditions for a picture-superiority effect on consumer memory. *Journal of Consumer Research*, 11(2), 643–654.
- Chowdhury, R., Olsen, G.D., & Pracejus, J.W. (2008). Affective responses to images in print advertising: Affect integration in a simultaneous presentation context. *Journal of Advertising*, *37*(3), 7–18.
- Chowdhury, R., Olsen, G.D., & Pracejus, J.W. (2011). How many pictures should your print ad have? *Journal of Business Research*, 64(1), 3–6.
- Daugherty, T., & Hoffman, E. (2014). eWOM and the importance of capturing consumer attention within social media. *Journal of Marketing Communications*, 20(1–2), 82–102.
- Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research*, 37(1), 60–71.
- Eppler, M.J., & Mengis, J. (2004). The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines. *The Information Society*, 20(5), 325–344.
- Erkan, I., & Evans, C. (2016). The influence of eWOM in social media on consumers' purchase intentions: An extended approach to information adoption. *Computers in Human Behavior*, 61, 47–55
- Fazio, R.H. (2001). On the automatic activation of associated evaluations: An overview. *Cognition & Emotion*, 15(2), 115–141.
- Forbes, K. (2016). Examining the Beauty Industry's Use of Social Influencers. *Elon Journal*, 7(2), 78–87.
- Furner, C.P., & George, J.F. (2009). Making it hard to lie: Cultural determinants of media choice for deception. In 2009 42nd Hawaii International Conference on System Sciences (pp. 1–11). IEEE.
- Furner, C.P., & Zinko, R.A. (2017). The influence of information overload on the development of trust and purchase intention based on online product reviews in a mobile vs. web environment: An empirical investigation. *Electronic Markets*, 27(3), 211–224.
- Furner, C.P., Racherla, P., & Zhu, Z. (2014). A multinational study of espoused national cultural and review characteristics in the formation of trust in online product reviews. *International Journal of Services Technology and Management*, 20(1–3), 14–30.
- Furner, C.P., Zinko, R., & Zhu, Z. (2016). Electronic word-of-mouth and information overload in an experiential service industry. *Journal of Service Theory and Practice*, 26(6), 788–810.

- Gerrig, R.J., Zimbardo, P.G., Campbell, A.J., Cumming, S.R., & Wilkes, F.J. (2011). *Psychology and life*. Boston: Pearson Higher Education AU.
- Gregory, R.L. (2015). Eye and brain: The psychology of seeing. Princeton: Princeton University Press.
- Hackley, C. (2003). *Marketing and social construction: Exploring the rhetorics of managed consumption*. London: Routledge.
- Hauser, D.J., & Schwarz, N. (2016). Attentive Turkers: MTurk participants perform better on online attention checks than do subject pool participants. *Behavior Research Methods*, 48(1), 400–407.
- Hennig-Thurau, T., Gwinner, K.P., Walsh, G., & 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.
- Hiltz, S.R., & Turoff, M. (1985). Structuring computer-mediated communication systems to avoid information overload. *Communications of the ACM*, 28(7), 680–689.
- Hirschman, E.C., & Holbrook, M.B. (1982). Hedonic consumption: Emerging concepts, methods and propositions. *The Journal of Marketing*, *46*, 92–101.
- Hoffman, E., & Daugherty, T. (2013). Is a picture always worth a thousand words? Attention to structural elements of eWOM for consumer brands within social media. *Advances in Consumer Research*, 41, 326–331.
- Holbrook, M.B. (1986). Emotion in the consumption experience: Toward a new model of the human consumer. In R.A. Peterson, W.D. Hoyer, & W.R. Wilson (Eds.), *The role of affect in consumer behavior: Emerging theories and applications* (Vol. 6, pp. 17–52). Lexington, MA: Heath.
- Holbrook, M.B., & Moore, W.L. (1981). Feature interactions in consumer judgments of verbal versus pictorial presentations. *Journal of Consumer Research*, 8(1), 103–113.
- Joy, A., Sherry, J.F., & Deschenes, J. (2009). Conceptual blending in advertising. *Journal of Business Research*, 62(1), 39–49.
- Keith, M.J., Babb, J., Lowry, P.B., Furner, C., & Abdullat, A. (2013, June 30). The Roles of privacy assurance, network effects, and information cascades in the adoption of and willingness to pay for location-based services with mobile applications. *Network Effects, and Information Cascades in the Adoption of and Willingness to Pay for Location-Based Services with Mobile Applications*.
- Keller, K.L., & Staelin, R. (1987). Effects of quality and quantity of information on decision effectiveness. *Journal of Consumer Research*, 14(2), 200–213.
- King, R.A., Racherla, P., & Bush, V.D. (2014). What we know and don't know about online word-of-mouth: A review and synthesis of the literature. *Journal of Interactive Marketing*, 28(3), 167–183.
- Laran, J., Janiszewski, C., & Salerno, A. (2016). Exploring the differences between conscious and unconscious goal pursuit. *Journal of Marketing Research*, 53(3), 442–458.
- Lee, H. (2007). How brand knowledge, belief, and experience predict consumers' perceptions of product attributes: An application in the auto industry. University of Florida, Gainsville.
- Lee, M., & Youn, S. (2009). Electronic word of mouth (eWOM) How eWOM platforms influence consumer product judgement. *International Journal of Advertising*, 28(3), 473–499.
- Liu, Y., Ferris, G.R., Zinko, R., Perrewé, P.L., Weitz, B., & Xu, J. (2007). Dispositional antecedents and outcomes of political skill in organizations: A four-study investigation with convergence. *Journal of Vocational Behavior*, 71(1), 146–165.
- Luo, L., & Toubia, O. (2015). Improving online idea generation platforms and customizing the task structure on the basis of consumers' domain-specific knowledge. *Journal of Marketing*, 79(5), 100–114.
- Mauri, A.G., & Minazzi, R. (2013). Web reviews influence on expectations and purchasing intentions of hotel potential customers. *International Journal of Hospitality Management*, *34*, 99–107.
- Olson, M.A., & Fazio, R.H. (2001). Implicit attitude formation through classical conditioning. *Psychological Science*, *12*(5), 413–417.
- Orcutt, J.D., & Turner, J.B. (1993). Shocking numbers and graphic accounts: Quantified images of drug problems in the print media. *Social Problems*, 40(2), 190–206.

- Paolacci, G., Chandler, J., & Ipeirotis, P.G. (2010). Running experiments on amazon mechanical turk. *Judgment and Decision Making*, 5(5), 411–419.
- Pieters, R., & Wedel, M. (2004). Attention capture and transfer in advertising: Brand, pictorial, and textsize effects. Journal of Marketing, 68(2), 36–50.
- Quirk, S.W., & Strauss, M.E. (2001). Visual exploration of emotion eliciting images by patients with schizophrenia. The Journal of Nervous and Mental Disease, 189(11), 757–765.
- Roggeveen, A.L., Grewal, D., Townsend, C., & Krishnan, R. (2015). The impact of dynamic presentation format on consumer preferences for hedonic products and services. *Journal of Marketing*, 79(6),
- Sen, S., & Lerman, D. (2007). Why are you telling me this? An examination into negative consumer reviews on the web. Journal of Interactive Marketing, 21(4), 76–94.
- Singh, S.N., Lessig, V.P., Kim, D., Gupta, R., & Hocutt, M.A. (2000). Does your ad have too many pictures? Journal of Advertising Research, 40(1-2), 11-27.
- Sismeiro, C., & Bucklin, R.E. (2004). Modeling purchase behavior at an e-commerce web site: A taskcompletion approach. Journal of Marketing Research, 41(3), 306–323.
- Srinivasan, S.S., Anderson, R., & Ponnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. Journal of Retailing, 78(1), 41–50.
- Tripadvisor.com. (2017). Trip advisor fact sheet. Retrieved from https://www.tripadvisor.com.au/PressCenter-c4-Fact Sheet.html
- Yoo, C.W., Kim, Y.J., & Sanders, G.L. (2015). The impact of interactivity of electronic word of mouth systems and E-Quality on decision support in the context of the e-marketplace. Information & Management, 52(4), 496–505.
- Yoon, S., & Kim, H.C. (2016). Keeping the American Dream Alive: The Interactive Effect of Perceived Economic Mobility and Materialism on Impulsive Spending, Journal of Marketing Research, 52(5), 759–772.
- Zinko, R., Furner, C.P., de Burgh-Woodman, H., Johnson, P., & Sluhan, A. (2020). The addition of images to eWOM in the travel industry: An examination of hotels, cruise ships and fast food reviews. Journal of Theoretical and Applied Electronic Commerce Research, 16(3), 525-541.
- Zinko, R., Heyden, M., Furner, C.P., & Dalton, A. (2017). Seeing is believing: The effects of images on resulting trust and purchase intent in eWOM. Paper presented at the International Conference on Marketing and Tourism, Tokyo, Japan.

APPENDIX





