

## **If we Build it will they Stay?: User Generated Content and Website Effectiveness**

**Larry Chiagouris<sup>1</sup> & Michelle A. Williams<sup>2</sup>**

### **Abstract**

---

There has been increased interest in the dimensions and impact of User Generated Content (UGC). Research has most often focused on online ratings as the most prominent form of UGC in terms of evaluating its impact. Other forms of UGC have not been the focus of the consequences of UGC. This study examined a variety of forms of UGC to determine the relationship between the presence of UGC on a brand sponsored website and website effectiveness. The results indicate that the presence of UGC is positively related to key website effectiveness measures, to include page views, time on the site and bounce rate.

---

**Keywords:** User Generated Content, website effectiveness, online ratings, Internet behavior, innovative tools

### **1.0 Literature Review**

#### **1.1 Growth of User Generated Content**

A columnist for USA Today, covering the use of social media in the travel industry, observed that a friend of his posts photos on Facebook of almost every meal that the friend eats. Commenting on the use (or overuse) of social media by travelers, he refers to a report that 78.8% of smartphone and tablet owners take them on vacation to document their travels (McGee 2013).

The use of social media has become pervasive far beyond the hospitality industry. It is now the topic of a variety of research initiatives.

---

<sup>1</sup>Pace University, Professor of Marketing, Lubin School of Business, Pace University, 212-618-6454, Email: [lchiagouris@pace.edu](mailto:lchiagouris@pace.edu)

<sup>2</sup>Assistant Professor of Psychology, Holyoke Community College

A few years ago, however, published work was viewed as often anecdotal (Burmam 2010). Much has changed with regard to social media research and in particular, the related area of understanding concerning UserGenerated Content (UGC).

It is estimated that UGC has played a part in more than \$10 billion annually in online travel alone just due to UGC's increased reliability (Cox et al. 2009). Indeed, it has been observed that there have been intense changes in consumer behavior as it applies to the travel industry (Mihajlović 2014) and certainly UGC is among the key changes impacting travel. Major journals have issued calls for papers and scholars have published a variety of reports on the topic of UGC.

With the introduction of Web 2.0, the ease of interaction between consumers is providing a new gateway of communication to aid in the decision making process (Snuderl 2008). While making it easier than ever to share your opinions and views with the world, UGC may be a major deciding mean by which consumers make their purchase decisions (O'Connor 2010). A recent study shows that 24% of Internet users were accessing UGC reviews before making a purchase online (Zhu and Zhang 2010).

Reported research and managerial practice has evolved to address a wide variety of investigations and uses of UGC. There remains, however, a concern that the use of UGC has resulted in what some refer to as "media anarchy" (Bruce & Solomon 2013). With consumers sitting in the driver's seat with regard to the creation of UGC, it is worth asking the question as to whether there is value to a brand management team in arranging for social media usage by its prospects and customers beyond the access to social listening that may provide valuable feedback with regard to the perceptions and attitudes toward a brand.

The management of a brand does not have total control over UGC. For many brands, there will be many outlets not in the control of brand management where consumers can contribute to the UGC related to the brand, for better or for worse. But there are options for the brand. Brand management teams do have the control over whether to facilitate UGC on brand-controlled websites.

Management can provide many locations that prospects and consumers provide their own content on a variety of pages controlled by a brand.

These pages include microsites, Facebook brand fan pages, and such emerging platforms as Pinterest and Instagram. Will these forms of UGC help a brand team succeed? More to the point, does UGC positively predict business results to warrant management creating a brand provided website outlet for UGC?

## 1.2 Evidence of Impact of UGC

There is evidence that it may indeed be positively associated, but examined more closely, the evidence remains narrow in its current form. For example, Chevalier and Mayzlin (2006) examined sales on Amazon.com and on BN.com, two sellers of books online. They found that the addition of a new favorable review on one site resulted in an increase in book sales. Sites like Amazon.com and Ebay.com make it easy and encourage their users to post reviews and about products they have bought or sold (O'Connor 2010). Others have found that online user generated movie electronic word of mouth volume at Yahoo.com significantly affected aggregate and weekly box office revenues (Liu 2006). A recent study conducted by Mir and Zaheer (2012) found that "as the number of people increases, the impact on the target individual's attitude and behavior enhances."

Of particular interest to this current study, similar results concerning the impact of UGC was observed in the hospitality industry (Ye et al. 2009). The researchers examined 3,625 reviews for 248 hotels. They found that a 10% increase in reviews was associated with a 4.4% increase in sales. Among information available to prospective travel consumers, UGC is one of the most influential (Cox 2009). Travelers examine reviews on independent travel review sites, the most prominent being TripAdvisor.com, because they feel the UGC is more likely to provide reliable up-to-date information (O'Connor 2010). The search through other consumers' reviews, comments, and pictures reduces the risks involved in making a purchase (Mir and Zaheer 2012). Frequent travelers in particular see these reviews as superior and are likely to be highly influenced by them over other information sources (O'Connor 2010).

The examination of online ratings data has advanced substantially. Research has not been focused only on the impact of changes in online ratings. Scholars have examined the characteristics of the reviewer.

In an examination of the innovativeness of the reviewer, it was found that the relationship of reviewer and perceived helpfulness was curvilinear (Pan & Zhang 2011). Research has also assessed the identification of which raters are the most influential (Xu et al. 2012). Consumers are also open to business responding to comments made online, given they do so in a "transparent and honest manner" (Cox et al. 2009).

Beyond who raters may be there has also been a variety of work on the nature of ratings. Hyung-Park et al. (2007) noted that online reviews are often considered more credible and trustworthy because consumers are behind the wheel on information about their potential product or service purchase. One illustrative study includes work based on how the reviews are written. For example, it was found that reviewer subjectivity and review readability had direct effects on the sales of products (Ghose and Ipeirotis 2011).

The research noted above, and related research streams, have contributed to a better understanding of several dimensions of UGC. The existing research, however, does not provide substantial guidance as to whether brand management teams should actively pursue strategies that create UGC content on their own websites. Cost savings may be a huge factor in investing in UGC or forums for a brand, but integrating it could help establish a network of users who are able to solve problems, propose enhancements, and help each other troubleshoot (Jabr et al. 2014). Such strategies would likely be attractive, however, only if it could be expected that the presence of UGC will positively predict business results.

Relevant to the relationship between UGC and website effectiveness, Goh et al. (2013) conducted one of the few studies that examined the impact of UGC compared to other marketing stimuli. They concluded that UGC is more persuasive than other marketing stimuli. While UGC sites may not directly affect a consumer's purchase decision, having comments on a company's products or services has potential to enhance their reputation (Cox et al. 2009). Others have found that the impact of UGC on the important metric of market share is positive but is not linear (Duverger 2013). Instead, it is curvilinear and thus, not equally impactful across all circumstances. In addition, UGC in the form of negative reviews may be more impactful than positive reviews.

Still others have found that the relationship between UGC and business results may not be in one direction. In an examination of movie industry results Qin (2011) found that word of blog affected box office revenue but that also, but office revenue affected the volume of word of blog.

### 1.3 Research Question

To summarize to this point, there is not a large body of literature on the relationship between UGC and business outcomes, in terms of business metrics. In addition, almost all of the research to date on the impact of UGC has been in the form of ratings. There are certainly many other forms of UGC other than ratings and the impact of these other forms have not been extensively studied. However, given the wide variety of research on the impact of online ratings, it is reasonable to address the following research question: Is there is a direct and positive relationship between the presence of UGC and website effectiveness?

## **2. Methodology**

### 2.1 Websites Examined

Three types of travel related websites were examined and formed the basis of the data collection. The largest brands in the hotel, theme park and cruise lines were identified based on industry trade publications in the United States and which serve travelers from the United States. These formed the brand universe that was examined. In total, 11 theme park brands, 17 cruise line brands and 19 hotel brands were included in the study. The brand websites had to have an English language version.

### 2.2 Review Process

Two researchers examined the websites for the brands during the summer 2012. The researchers reviewed and recorded the websites for the presence of UGC. The reviewers examined all 47 websites independently and identified how many forms of UGC appeared on each site. The review process required that the reviewers first view the home page of a site.

Then, every link on the home was “clicked on” in order to identify the material that appears on the next page down from the home page (or the second level down). The reviewers then clicked on all the links on the next pages to further their effort to identify and inventory the presence of UGC. In effect, the first three levels of pages on each domain were examined for the presence of UGC. The following represents the various forms and definitions of UGC that were inventoried for each of the 47 brand websites:

- **Reviews/Comments:** Anywhere on the website where a user can share his or her feedback with the web, whether it is responding to a recent post from a blog, or reporting his or her stay at a resort or restaurant.
- **Photo/Video Sharing:** Anywhere on the website where a user can publically post his or her photos or videos on the particular website to share her experience with other users on the site.
- **Blogs:** Anywhere on the website where there is a place to either start your own public diary about a particular subject to share with the world, or read individual diaries on particular subjects. Many companies are now starting these on their websites to engage with the consumer and gain feedback.
- **Forums/Message Boards:** Area on website where users can engage with each other and the website by discussing certain topics in particular or ask questions that they need to be answered.
- **Surveys/Polls:** A place where users answer certain questions based on their preference to gain an overall percentage response or analysis that is shown on the website itself.
- **Link to Social Network:** Area on the website where there is an icon link connecting the user to their social media website, where they can add the brand or company to their likes or friend list, and can communicate with the brand on the social media platform.
- **Link to YouTube:** Area on the website where there is an icon link connecting the user to the most popular video sharing website (YouTube.com), where they can view the websites particular videos and respond to them.
- **Link to offsite UGC:** Area on website where a user can be linked to a user generated content website particular to their brand. Could be a separate blog site created by the brand, where users can interact, or another UGC dedicated review site.
- **Chat:** Area on the website where users can either chat amongst themselves or with administrators of the website to help them answer questions, or just socialize.

- Personal Page: Option on a website where a user can create his or her own profile based on his or her preferences, where he or she can either create his or her own blog and add friends)
- Mobile Uploads: Link on website where users can add mobile app and can upload or share reviews or posts with the website straight from their phone.
- Contests: Area on the website where users can participate in a contest in order to win a prize. Winner will later be shared with the website.
- Games: Area or link on the website, where a user can click and play games or create certain arts and crafts for their own entertainment or play with other users.
- Podcasting: An area on the website where users can create their own video or audio files to share with other users.

### 2.3 Measures

For each website, data was recorded that is considered reflective of website effectiveness. Common forms of website effectiveness include page views, time on the site and bounce rate. These are generally accepted forms of website data that are in common usage by most web tracking services.

Data for these measures were sourced from Alexa.com for each of the 47 brand websites. Alexa Internet, Inc. is a California based subsidiary company of Amazon.com that provides commercial web traffic data. Founded as an independent company in 1996, Alexa was acquired by Amazon in 1999. It uses a toolbar and other sources to collect data on browsing behavior and transmits it to the Alexa website, where it is stored and analyzed, forming the basis for the company's web traffic reporting. As of 2014, Alexa provides traffic data, global rankings and other information on 30 million websites and its website is visited by over 10 million people monthly.

Definitions of each of the measures are as follows:

- Page Views per User: Average page views an individual user views on a particular website before exiting the website. The higher the number, the more effective the website. This metric allows advertisers and other professionals to determine the stickiness of a website.

- Time on Site: The average time an online visitor spends on a website before exiting. The higher the metric, the more effective the website.
- Bounce Rate: The percentage of single page visits. This metric demonstrates the percentage of users who leave the website after the homepage. The lower the percentage, the more effective the website.

### 3. Results

Descriptive statistics for all variables are shown in Tables 1 and 2. Table 1 shows the number of times that the different types of UGC were present when all of the sites were combined. Table 2 shows the means and standard deviations for total UGC and the 3 effectiveness measures.

The three travel-related categories of interest included hotels, cruise lines, and theme parks. Based on a review of all travel related categories, these are the categories that have provided the largest array of user generated content. The limited number of observations within each travel related category precludes an analysis of each category separately. As such, all 3 industries needed to be considered as a single dataset for the purpose of inferential statistics.

Total UGC was calculated by summing the number of different types of UGC that was present on the site. Results showed that the sites had a mean of 2.66 ( $SD = 2.16$ ) types of UGC. Simple linear regressions were conducted to determine if the amount of UGC present on a site predicted its effectiveness. In the first analysis, results showed that total UGC significantly predicted views per page,  $b = .39$ ,  $\beta = .51$ ,  $t(50) = 4.24$ ,  $p < .01$ , such that for every additional piece of UGC, predicted page views increased by .39. In the second analysis, total UGC significantly predicted bounce rate,  $b = -2.09$ ,  $\beta = -.37$ ,  $t(50) = -2.79$ ,  $p < .01$ , such that for every additional piece of UGC, predicted bounce rate decreased by 2.09. The final regression showed that total UGC significantly predicted time on site,  $b = .50$ ,  $\beta = .53$ ,  $t(50) = 4.44$ ,  $p < .01$ , such that for every additional piece of UGC, time on site increased .5 minutes.

Subsequently, once it was determined that the presence of UGC was indeed related to website effectiveness, three multiple linear regressions were conducted wherein effectiveness measures were separately regressed on the different types of UGC.

These analyses allowed us to determine if any of the specific types of UGC predicted effectiveness, over and above the others. Given the limited number of observations for some variables only blogs, comments, social networking, YouTube, and off-site UGC were able to be considered as potential predictors. The remaining types of UGC had too few observations to be included in the models.

Results of the regression analyses indicated that the presence of the different types of UGC accounted for a significant proportion of variability in effectiveness. More specifically, the model accounted for approximately 27% of the variability in page views,  $R^2 = .27$ ,  $F(5,46) = 3.39$ ,  $p = .01$ , approximately 22% of the variability in bounce rate,  $R^2 = .22$ ,  $F(5,46) = 2.64$ ,  $p = .04$ , and approximately 24% of the variability in time on the site,  $R^2 = .24$ ,  $F(5,46) = 2.91$ ,  $p = .02$ . Only the presence of YouTube videos significantly and uniquely predicted effectiveness. More specifically, the presence of YouTube content was related to a significant decrease in bounce rate,  $b = -8.06$ ,  $\beta = -.33$ ,  $t(46) = -2.10$ ,  $p = .04$ , and a significant increase in time on the site,  $b = 1.27$ ,  $\beta = .32$ ,  $t(46) = 2.04$ ,  $p = .05$ . The analysis focused on views per page did not show a significant effect for the presence of YouTube content; however, the outcome was marginal,  $b = .93$ ,  $\beta = .28$ ,  $t(46) = 1.86$ ,  $p = .07$ . Results showed no evidence that the presence of blogs, comments, social networking, or OffUGC were uniquely related to effectiveness. Regression information for each model is shown in Table 3.

**Table 1. Frequencies of UGC**

Type of UGC	N (%)
Message Boards	1 (1.6)
Photo Sharing	5 (8.1)
Surveys	5 (8.1)
Blogs	16 (25.8)
Comments	19 (30.6)
Chat	3 (4.8)
Social Networking	46 (74.2)
YouTube	23 (37.1)
Mobile Uploads	2 (3.2)
OffUGC	37 (59.7)
Contests	4 (6.5)
Games	4 (6.5)
Personal Pages	0 (0.0)
Podcasts	0 (0.0)

Note. Percentages are calculated relative to a total  $N = 62$ . Reported values are frequencies of occurrence with percentages in parentheses.

**Table 2: Means and Standard Deviations**

Type of UGC	<i>M (SD)</i>
Total UGC	2.66 (2.16)
Views Per Page	4.22 (1.63)
Bounce Rate	36.96 (12.18)
Time On	4.41 (1.99)

**Table 3: Results of Multiple Linear Regressions Predicting Effectiveness from Type of UGC**

	<i>R</i> <sup>2</sup>	<i>b</i>	<i>SE b</i>	$\beta$	<i>p</i>
Predicting Views Per Page					
Overall Model	.27				.01*
Blogs		1.36	.82	.38	.10
Comments		-.71	.79	-.21	.37
Social Network		.21	.66	.06	.75
YouTube		.93	.50	.28	.07 <sup>+</sup>
OffUGC		.36	.59	.11	.55
Predicting Bounce Rate					
Overall Model	.22				.04*
Blogs		-11.19	6.33	-.42	.08 <sup>+</sup>
Comments		5.26	6.07	.20	.39
Social Network		1.74	5.12	.06	.74
YouTube		-8.06	3.85	-.33	.04*
OffUGC		.84	4.57	.03	.85
Predicting Time On Site					
Overall Model	.24				.02*
Blogs		1.26	1.03	.29	.22
Comments		-.94	.98	-.22	.34
Social Network		-.28	.83	-.06	.73
YouTube		1.27	.62	.32	.05*
OffUGC		.92	.74	.22	.22

Note. \*significant at  $p < .05$  level, <sup>+</sup> marginally significant at  $p < .10$ .

## 4. Discussion and Implications

### 4.1 Theoretical implications

This study called for the need to examine UGC beyond the form that dominates research streams.

Specifically, this study examined many forms of UGC and their combined association with website effectiveness beyond simply the online ratings which is arguably the most popular form of UGC.

This study produced results that the other forms of UGC, in combination, are linked to a positive result in website effectiveness. As one of the first studies to examine the combined relationship of UGC in multiple forms with website effectiveness, it should serve as a basis for other researchers to also examine the many other forms of UGC.

This study also focused on website effectiveness rather than other business metrics such as market share or sales. The importance of this cannot be overstated since many factors contribute to sales and market share results beyond UGC. As such, it was important to identify whether UGC is correlated with the more closely aligned and direct measures of website effectiveness. As such, this study provided a demonstration across all three measure of website effectiveness: pageviews, time on the site and bounce rate.

#### 4.2 Managerial Implications

The opportunity to leverage UGC is substantial. As already observed in other industry sectors, engaging the consumer in the development and exposure of a service offering can lead to positive business results (Perrott 2014). It is understandable that some management teams may be approaching the provisioning of UGC on a brand controlled website with some trepidation. There may be a concern that providing a place where consumers can rant or complain may present challenges that management may want to avoid. That said, this study suggests that across multiple forms of UGC and multiple types of services, UGC related to higher levels of website effectiveness.

Importantly, where there is no existing form of UGC on a brand related website or social media platform, providing the first initial forms in order to encourage consumers to take the time to create content is likely to be a challenge. There are a variety of tactics that can be used to encourage adding content to a site. Such tactics can include coupons to the first set of consumers who add material or it may be simply some form of recognition to the consumers who do so.

The existing literature related to building brand communities will likely be a very valuable source of tactics that can be used to encourage consumers to create UGC with the expectation that others will follow.

Not every industry is equally relevant to all forms of UGC. It may be that some industries and related brands are more sensitive to changes in different UGC forms. To identify what is more impactful, brand management teams will need to experiment with the different forms of UGC to determine optimal levels of each form of UGC. For example, financial services organizations may require more material in the form of graphic representations and thus, making it easier for consumers to create that type of content will be more helpful to brand goals. On the other hand, food brands may benefit more from photos or videos of food products.

#### 4.3 Suggestions for Future Research and Limitations

As noted, not every industry is equally relevant to all forms of UGC. Sectors of the hospitality or travel industry are likely more relevant to the creation of UGC by consumers given interests by prospective travelers in learning what a facility looks like. Other industries and related brands may not generate as much interest in examining visual representations of a brand and its related service offerings. Thus, research with other industries is in order to determine the degree that UGC has a positive impact on website effectiveness.

Even among the various forms of UGC examined in this current study, some forms of UGC were more prevalent than others. It will be valuable to conduct a more granular analysis for each form of UGC in order to assess its impact on website effectiveness.

Given the international nature of travel, it is not clear that the findings in this study can be generalized beyond the universe of United States website visitors. Visitors from other countries to travel related websites should be studied in order to determine how broadly the implications of the current research can be extended to travel sites in other countries.

## References

- Ayeh, J. K., N. Au, and R. Law, ""Do We Believe in TripAdvisor?" Examining Credibility Perceptions and Online Travelers' Attitude toward Using User-Generated Content." *Journal of Travel Research*, Vol.52: 437-52, 2013.
- Bruce, M. and M. Solomon, "Managing for Media Anarchy: A Corporate Marketing Perspective," *Journal of Marketing Theory & Practice*, Vol. 21, No. 3: 307-318, Summer 2013.
- Burmann, C., "A call for 'User-Generated Branding,'" *Journal Of Brand Management*, Vol. 18, No. 1: 1-4, September 2010.
- Chevalier, J. A. and D. Mayzlin, "The Effect of Word of Mouth on Sales: Online Book Reviews," *Journal of Marketing Research*, Vol. 43, No. 3: 345-54, 2006.
- Cox, C., S. Burgess, C. Selitto, and J. Buultjens, "The Rold of User-Generated Content in Tourists' Travel Planning Behavior." *Journal of Hospitality Marketing and Management* Vol. 18: 743-64. 2009.
- Duverger, P., "Curvilinear effects of user-generated content on hotels' market share: A dynamic panel-data analysis", *Journal of Travel Research*, Vol. 52, No. 4: 465-478, 2013.
- Ghose, A. and P. Ipeirotis, "Estimating the Helpfulness and Economic Impact of Product Reviews: Mining Text and Reviewer Characteristics," *IEEE Transactions On Knowledge & Data Engineering*, Vol. 23, No. 10:1498-1512, October 2011.
- Goh, K., C. Heng and Z. Lin, "Social media brand community and consumer behavior: Quantifying the relative impact of user- and marketer-generated content". *Information Systems Research*, Vol. 24, No. 1: 88-107, 2013.
- Hyung-Park, D., J. Lee, and I. Han, "The effect of on-line consumer reviews on consumer purchase intention: The moderating role of involvement." *International Journal of Electronic Commerce*, Vol. 11 No. 4: 125-148.2007.
- Jabr, W., R. Mookerjee, Y. Tan, and V. Mookerjee, "Leveraging Philanthropic Behavior for Customer Support: The Case of User Support Forums." *MIS Quarterly* Vol. 38, No. 1: 187-208. March 2014.
- Liu, Y., "Word of Mouth for Movies: Its Dynamics and Impact on Box Office Revenue." *Journal of Marketing*, Vol. 70, No. 3: 74-89, July 2006.
- McGee, B., "Is over-sharing on social media ruining travel?" at <http://www.usatoday.com/story/travel/columnist/mcgee/2013/09/25/sharing-social-media-travel-facebookinstagram/2864731/>, September 25, 2013.
- Mihajlović, I., "ICT and New Trends in Consumer Behavior – New Experiential Knowledge, Opportunities or Challenges for Intermediaries," *Journal of Marketing Management*, Vol. 2, No. 1: 43-64, March 2014.
- Mir, I., and A. Zaheer, "Verification of Social Impact Theory Claims in Social Media Context." *Journal of Internet Banking and Commerce*, Vol. 17, No. 1: 1-15. April 2012.
- O'Connor, P., "Managing a Hotel's Image on TripAdvisor." *Journal of Hospitality Marketing and Management*, 19: 754-72, 2010.
- Pan, Y., and J. Zhang, "Born Unequal: A Study of the Helpfulness of User-Generated Product Reviews," *Journal of Retailing*, Vol. 87, No. 4:598-612, December 2011.

- Perrott, B., "Including Customers in Co-Design to Market Test Health Services." *Journal of Marketing Management*, Vol. 2, No. 2: 211-226, June 2014.
- Qin, L., "Word-of Blog for Movie: A Predictor and an Outcome of Box Office Revenue?" *Journal of Electronic Commerce Research*, Vol. 12, No. 3:187-198, 2011.
- Snuderl, Katja. "Tagging: Can User-generated Content Improve Our Services?" *Statistical Journal of the IAOS*, Vol. 25: 125-32, 2008.
- Xu, K., X. Guo, J. Li, R. Y. K. Lau, and S. S Y. Liao, "Discovering target groups in socialnetworking sites: Aneffective method for maximizing joint influential power." *Electronic Commerce Research and Applications*, Vol. 11, No. 4: 318-334, 2012.
- Ye, Q., R. Law, and B. Gu. (2009). "The Impact of Online User Reviews on Hotel Room Sales." *International Journal of Hospitality Management*, Vol.28, No. 1: 180-82, 2009.
- Zhu, F., and X. Zhang, "Impact of online consumer reviews on sales: The moderating role of product and consumer characteristics." *Journal of Marketing*, Vol. 74, No. 2: 133-148. 2010.