ENGAGEMENT ON TWITTER: CONNECTING CONSUMER SOCIAL MEDIA GRATIFICATIONS AND FORMS OF INTERACTIVITY TO BRAND GOALS AS A MODEL FOR SOCIAL MEDIA ENGAGEMENT.

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Originally submitted April 2024
Accepted August 2024

ABSTRACT

What type of brand content increases engagement on Twitter? A content analysis of 1,000 brand Twitter posts analyzed content types that drive engagement in retweets, replies, and likes. Significant positive effects were found for contests, sweepstakes, and emoji posts on retweets; contest and sweepstakes posts on replies; and emoji posts on likes. Significant negative effects were found for educational and exclamation posts created on retweets, replies, or likes. Diffusion of innovation and uses and gratifications theories were considered in the context of viral advertising and social media engagement. Assessment of previous studies and theories leads to a proposed social media engagement model that considers brand and consumer goals, engagement form, and engagement type. Managerial implications of findings and the model are discussed.

Keywords: Viral Advertising, Social Media, Twitter, Word-of-Mouth, Content Marketing

INTRODUCTION

This research is about the social network called X, formerly Twitter. Since this research was conducted before the name change, it will be called Twitter in the rest of the paper. Twitter was founded in 2006, and this social network has grown to over 368 million monthly active users, with 247 million active daily (Dixon, 2023). Twitter is popular with businesses and influential among consumers. Ninety-six percent of Fortune 500 companies have active Twitter accounts, higher than 95 percent with Facebook accounts, 90 percent on YouTube, and 73 percent on Instagram (Barnes et al., 2020).

One-third of Twitter users read tweets from a business daily, and another third every time they log in. Seventy-eight percent have tweeted at a business, with half tweeting/posing multiple times. Ninety-three percent plan to purchase from businesses they follow and nearly 70 percent have already purchased from them. Almost 40 percent have purchased, or plan to purchase, regularly from companies they follow (Lewis, 2020).

Consumers today play an active role in circulating advertising on social media while impacting the meaning and effectiveness of brand and product messages (Rodgers & Thorson, 2017). While research exists on forms of content and engagement (Leung & Bai, 2013; Jin & Phua, 2014; Kim et al., 2014; Watkins, 2014; Colliander et al., 2015; Araujo et al., 2015; Vargo, 2016; Uzunoğlu et al., 2017), gaps in knowledge still exist on what drives and motivates consumer engagement with brands on Twitter. No study has broadly analyzed Twitter brand content type and text to determine what drives engagement across all three forms: retweets, replies, and likes.

Brands in social media must attract an audience to engage with content and share brand messages through word-of-mouth voluntarily. Promoted tweets boost initial reach but do not guarantee further reach and engagement through retweets, replies, and likes. Consumers avoid advertising on the Internet because of perceived goal impediment and ad clutter (Cho & Hongsik, 2004). How does brand social media become a part of consumers' goals to elicit word-of-mouth rather than being an impediment?

This question was considered through word-of-mouth and viral marketing scholarship, diffusion of innovation, and uses and gratifications theories applied by scholars to social media (Katz et al., 1973; Berger, 2014; Gao & Feng, 2016). Previous works identified five categories of gratifications from social media use. Alhabash and McAlister's (2015) definition of virality in a social media context provided a complete tripartite approach to social media engagement, considering user interactivity through retweets, replies, and likes.

With these theoretical foundations, the authors obtained a large data set of direct consumer behavior on Twitter from an industry social media analytics partner. Via a content analysis of a

wide set of posts from small to large brand accounts, the authors looked broadly at what type of content and text drives engagement. Then, a model for brand-consumer social media engagement is proposed.

More broadly, this study answers calls for research focusing on platforms with different characteristics than Facebook and utilizing direct social media data research to examine and explain consumer response in a natural setting (Voorveld, 2019). Scholars have called for the use of large sample sizes of consumer behavioral data as more social interaction takes place in digital environments, and measures of actual behavior can help avoid biases in self-report methods (Lapointe, 2013; Calder et al., 2016; Malthouse & Li, 2017).

LITERATURE REVIEW

Effectiveness of Brands on Twitter

Researchers have analyzed the effectiveness of brands on Twitter and are uncovering insights. Kim, Sung, and Kang (2014) considered consumer-brand relationships, online brand community, and eWOM, identifying key variables used in a survey of Twitter users. Brand followers who identify as having close relationships with brands are more likely to retweet brand tweets and have higher intentions to continue a relationship with brands. Findings suggested that a higher level of brand trust is associated with consumers who retweet brand posts. The study was limited to one form of engagement (retweets) and did not provide insights into the type of content that may produce engagement.

Other researchers have studied Twitter's effectiveness in specific industries. Watkins' (2014) survey of NBA fans found that Twitter significantly influenced brand relationships and fan identification. Sports team identification also influenced team brand equity. Leung and Bai (2013) applied motivation, opportunity, and ability (MOA) theory to explore travelers' involvement behaviors on hotel social media pages. A survey found that travelers' social media involvement with a hotel brand's Twitter page positively impacted revisit intention. These studies were limited to sports teams and hotel brands and did not look at the type of brand content or engagement types.

Jin and Phua (2014) examined the impact of Twitter followers and celebrity type on consumer behavior with social capital, social identity theory, source credibility, and WoM. The number of followers contributed to source credibility. eWoM valence and the number of followers had an interaction effect on product involvement, buying intention, and pass-along intent. The research found an interaction effect between the type of celebrity and the number of followers on social identification with the celebrity. Additionally, it was discovered that social identification has a

mediating effect. The study focused on celebrity tweets and did not consider content-type engagement forms.

Colliander, Dahlén, and Modig (2015) compared the effects of communicating with customers on social media with one-way communication or two-way dialogue. Based on WOM theory, an experiment found that two-way dialogue with a company on Twitter enhanced brand attitudes and purchase intentions. The use of dialogue was perceived as the brand caring and investing in customers. Engagement is not as effective if a brand does not continue the conversation.

Several studies have provided insights into the type of content on Twitter that drives engagement. Araujo, Neijens, and Vliegenthart (2015) analyzed global brand messages and found that informational cues predicted retweets. Product details and links to a brand's website, social network sites, and photos or videos increased retweets. Emotional cues, when combined with informational and traceability cues (hashtags), also influenced retweets. The study was limited to one form of engagement.

Vargo (2016) assessed Twitter brand engagement by analyzing 17 of *AdAge's* mega brands list. There was moderate support for self-concept and self-enhancement engagement drivers. The research found brand tweets that promoted giveaways and mentioned popular culture events and current holidays positively influenced engagement, whereas promotional messages negatively influenced engagement. This study did not consider replies and focused only on large companies.

Uzunoğlu, Türkel, and Akyar (2017) investigated whether different corporate social responsibility (CSR) Twitter messages would impact consumer attitudes and behavior differently. Results found that product/economic and ethical CSR topics had a higher impact on purchase intent than product/purely economic topics. Economic and ethical topics had a higher impact on engagement than messages with purely ethical topics. CSR Twitter messages did not influence word-of-mouth intention or brand attitude. The study only focused on CSR messages and did not measure forms of engagement.

Previous studies provide insights into brand Twitter activity through some forms of engagement and some forms of content, but the picture is far from complete. What is missing is a broader look across multiple content variables encompassing all forms of engagement (retweets, replies, and likes). Previous studies have also focused on smaller convenience samples and self-report surveys. In contrast, this study sought to analyze a large data set of direct consumer actions on a wide range of Twitter brand accounts.

A Behavioral Approach to Social Media Engagement

The study of social media begins with viral marketing research. Petrescu and Korgaonkar (2011) defined viral marketing as "online and offline marketing activities to influence consumers to pass along commercial messages to other consumers." They argued that the diffusion of innovation theory is related to viral marketing in social media. Diffusion occurs when innovation is communicated through channels among members of a social system (Phelps et al., 2004; Rogers, 1983). Twitter is both a channel and a social system. Twitter users tell followers, who, in turn, tell their followers. The diffusion rate increases as information travels the social channel, and distribution potential increases, becoming "viral."

However, social media is more than simple dissemination through diffusion. It enables more nuanced forms of engagement. Alhabash and McAlister (2015) proposed a tripartite approach to virality where social media engagement occurs in multiple ways. They redefined virality in social media as "the combination of viral reach, affective evaluation, and message deliberation." Viral reach is the volume of social media message sharing (retweets). Message deliberation is the active, public deliberation of social media messages (replies). Affective evaluation is the expression of emotion in social media messages (likes). Brand social media engagement drives electronic word-of-mouth (eWoM) and the viral spread of marketing messages through three forms. But why do certain types of content attract more engagement than others? What motivates consumers to engage in each of these respective forms?

A behavioral approach was taken to explore consumer motivation. Uses and gratifications theory explains that consumers seek out specific media to satisfy specific needs (Katz et al., 1973). Berger (2014) built upon the uses and gratifications theory, proposing that the psychological factors that drive word-of-mouth serve five key consumer functions: impression management, emotion regulation, information acquisition, social bonding, and persuasion. Gao and Feng (2016) similarly identified these five dimensions of gratification related to social media use. Understanding consumer social media gratifications and goals could provide clues to creating brand content that will elicit the desired consumer engagement.

One consumer media gratification is impression management. This happens when people engage with specific social media messages with the goal of influencing the impressions others have of them and what they have of themselves. Engaging with the right brand message produces self-enhancement, identity-signaling, and fills the conversational space. People engage with messages they feel will make them look good to others. Another consumer gratification is using media with the goal of emotion regulation. People use social media as an outlet for experiencing and expressing emotions. Social media provides a place for social support, venting, sense-making, dissonance reduction, vengeance, and rehearsal. The right brand message provides an outlet to express emotions and experience them with others.

Information acquisition is another consumer media gratification. People engage in social media to acquire information from others. They seek advice for problems or decisions. The right brand message can meet that need. Social bonding is a consumer gratification when people feel lonely or left out and turn to social media to connect with others. They use social media to interact with people with similar views and interests, forming bonds that reduce loneliness and social exclusion. The final consumer media gratification is persuasion. People often engage socially to get others to think the way they do or form the same opinion about a topic. The right brand message can aid in this interpersonal persuasion.

Berger (2014) described these five media gratifications as five goal-driven reasons for word-of-mouth. These reasons are consumer motivations for social media gratifications, which vary based on the consumer goal. Marketers may also have different goals met through different forms of social media engagement. Sometimes, marketers want to increase consumer reach through retweets to build the size of their brand community. Other times, they want to increase consumer response through replies to build brand relationships. Sometimes, they want to increase consumer recognition through likes to build brand bonds. These various marketer goals, consumer goals, and forms of engagement can be compared to align goals and outcomes. Our study of Twitter brand posts sought to build upon this theoretical understanding by determining what specific types of Twitter content may contribute to increased engagement in its three respective forms to connect various marketer and consumer goals (see Table 1).

Table 1. Comparison of consumer gratifications and goals with forms of social media engagement

Consumer Goals and Gratifications	**Forms of Social Media Engagement**	**Brand Goals by Social Media Engagement**	**Twitter Engagement Type**	**Twitter Content Type**
Impression Management	Message Sharing	Consumer Reach (Builds Brand Communities)	Retweet	?
Persuasion				
Information Acquisition	Message Deliberation	Consumer Response (Builds Brand Relationships)	Reply	?
Social Bonding	Expression of Emotion	Consumer Recognition (Builds Brand Bonds)	Like	?
Emotion Regulation				

RESEARCH QUESTIONS

This research sought to study Twitter brand posts that drive engagement via viral reach (retweets), affective evaluation (likes), and message deliberation (replies). The study employed content analysis of open web data obtained from a social media metrics company to explore which Twitter brand post type and text content variables significantly contribute to increased engagement across three social media interactivity measures. The study also considered the number of brand followers as a covariate influence. Research questions were stated as follows:

RQ1: What content type variables have a positive impact on producing higher retweets (viral reach) of Twitter brand posts?
RQ2: What content type variables have a positive impact on producing higher replies (message deliberation) on Twitter brand posts?
RQ3: What content type variables have a positive impact on producing higher likes (affective evaluation) of Twitter brand posts?
RQ4: Are the impacts of content type variables on higher retweets, likes, and replies unique and separate from the impact of the number of brand followers on retweets, likes, and replies?

Method

Sample

This study was a content analysis of U.S. English language Twitter brand account posts published from January 1, 2015 to December 31, 2015. The sampling frame consisted of 1,000 Twitter brand account posts randomly selected through a stratified sampling of 100 posts from engagement score range increments of 100 to 1,000: (1) 1-100, (2) 101-200, (3) 301-400, and so on up to the final hundredth group (10) 901-1,000. For each post, the social media metrics company collected the brand name, sector name, number of account followers, post date, post URL, post text characters, number of retweets, number of likes, and number of replies. Only aggregate non-personally identifiable information (number counts and content from brand account posts) was used. No individual user identity data was collected.

The authors acknowledge that this data is older than normally desired by the time of publication. Initial delays were due to the large dataset provided by our industry partner, which included other social media platforms that we had analyzed before the Twitter data. We also ran into unusually long review delays in finding the right journal. Nevertheless, the research gap this paper addresses still exists, and the paper is still relevant to addressing previous calls for research in this area.

Social media network algorithms are notorious for frequent changes and constantly evolving emphasis. Social media managers acknowledge that a long-term content strategy is the key to success (not short-term algorithm hacks) is needed (Stark, 2024). While our data represents a snapshot from 2015, the theoretical insights provide a model that applies to any time and any social media platform, leveraging timeless theories.

Despite the delay between data collection and publication, this study advances scholarship as the first to connect consumer goals and gratifications, forms of social media engagement, and brand goals by social media engagement. The proposed model for social media engagement combines diffusion of innovation and uses and gratifications theories in the context of viral advertising and social media engagement, proposing a path forward for research on any platform.

A large sample size of direct behavioral data was used to explore the research questions fully. Lapointe (2013, p. 10) has explained that "Big data can be gathered more cost effectively and in more timely ways … to continually test how elements of the marketing mix combine to cause actions." Calder, Malthouse, and Maslowska (2016, p. 583) argue "More social interaction and consumption take place in digital environments (e.g. websites, social media environments, and mobile devices) where customer actions can be recorded in longitudinal big data … by measuring actual behaviors, we avoid biases prevalent to self-report methods." Malthouse and Li (2017, p. 230) explain that digital environments often provide more accurate measures and characterize social media as "the world's largest focus group."

From previous social media research, theoretical and conceptual challenges, and media and advertising industry surveys, Voorveld (2019) called for a new research agenda for brand communication in social media with a shift from experiments and surveys to research methods based on real social media data that examine and explain consumer response in a natural setting. Voorveld (2019) also recommended research into brand communication, considering social media platforms with characteristics different from Facebook, as Facebook has been the focus of previous research. This research topic and method meet these calls.

Data

Data for this study was provided by Unmetric, an independent third-party social media measurement firm that collects social media data on more than 100,000 brands across 20 countries (Unmetric website, 2023). Unmetric supplied data for U.S. English language Twitter brand posts published from January 1, 2015 to December 31, 2015. The 1,000 posts covered various brands and industries, with page sizes ranging from 38,944 followers (GEICO) to 9,725,264 followers (Covergirl). All brands were advertised elsewhere in other forms, and none

were new. Unmetric did not share its proprietary system for collecting data, but descriptions suggest it was captured daily from Twitter on mobile and desktop.

Coding

After reviewing the literature on content analysis coding procedures, it was determined that one author would code the initial content sample, with a second independent coder performing the same coding as a check for reliability (Potter & Levine-Donnerstein, 1999). This is an acceptable method for coding this type of manifest content. The variables were on the surface and easily observable, such as the number of hashtags, brand mentions, and the presence of a contest or sweepstakes. The authors sought to discover empirical generalizations that could be applied to our theoretical foundation. The authors felt this was an appropriate method to cast a wide net across the extensive possibility of Twitter post variables and to let the data (i.e., real consumer responses in a natural setting) present the patterns. In total, 20 content variables were defined for coding (see Appendix: Coding Scheme). The 20 variables were selected based on recommendations from the social media measurement firm Unmetric based on their five years of experience and previous insights.

The authors did a pretest across the 20 content types on a smaller random sample of 250 Twitter brand posts to narrow the large number of possible variables. The 20 variables included and coded in the pretest were: post type (link, image, video/gif, text-only), number of characters, number of words, number of hashtags, number of links, number of brand mentions, number of @ mentions, promotion/price, contest/sweepstakes, social cause/corporate social responsibility (CSR), events, celebrity, question, exclamation point, call to action, fan content (user-generated content), new/now, time/date, educational, and emoji.

From those initial results, 10 variables returned significant (or marginally significant) effects (as measured by independent samples t-tests) on retweets, replies, likes, and engagement scores. Since engagement score is a proprietary measure of Unmetric, it was decided to use it in the pretest only as another dependent variable. However, the proprietary and undisclosed nature of the function for engagement score rendered it less clear and useful for the expanded sample in the main study.

Pretest results included a significant positive effect on likes for fan content and significant negative effects on likes for question and education; significant positive effects on retweets for fan content and new/now and significant (or marginally significant) negative effects on retweets for question, education, and call to action (marginally significant); significant (or marginally significant) positive effects on replies for contest/sweepstakes and exclamation (marginally significant) and a negative effect on replies for education; and significant positive effects on engagement score for fan content, new/now, and emoji, and significant (or marginally

significant) negative effects on engagement score for social cause/corporate social responsibility (CSR), events, education, and call to action (marginally significant). There were no significant effects on all other engagement measures.

Based on the pretest results, the authors narrowed the variables to the ten that displayed the previously mentioned significant (or marginally significant) effects and expanded the sample to 1,000 randomly selected Twitter brand posts (from January 1, 2015 – December 31, 2015) to see if the variables that showed promise in the pretest held up under the larger sample. After coding the larger sample, the authors found 71 posts that included mention of contest/sweepstakes, 50 posts that included mention of social cause/corporate social responsibility (CSR), 153 posts that included mention of events, 123 posts that included a question, 193 posts that included an exclamation, 393 posts that included a call-to-action, 30 posts that included fan content (UGC), 144 posts that included a mention of new/now, 94 posts that included education, and 44 posts that included an emoji.

Intercoder Reliability

With manifest content, the coding task is clerical, recording the variable occurrence. Fatigue is the primary threat to reliability (Potter & Levine-Donnerstein, 1999). Thus, one author recorded the coding of the content data for analysis, and then a secondary independent coder recorded the coding of the entire sample as a check for reliability. Both coders studied the definitions and guidelines for coding the content categories according to the coding scheme (see Appendix: Coding Scheme). The coders viewed each Twitter brand post and used the coding form (an Excel spreadsheet) to mark the existence or non-existence of each content type independently. Significant discrepancies were identified after an initial check for intercoder reliability, and the coders met to discuss posts to reach a final agreement.

Cohen's Kappa, Scott's Pi, and Krippendorff's Alpha were generated to assess intercoder reliability across all variables for all 1,000 posts. Kang et al. (1993) recommended these types of reliability estimates in advertising content analyses. The range of all three estimates across all ten content types of posts was between .84 and .99, which previous research has deemed to be acceptable levels for data analysis (Landis & Koch, 1977; Fleiss, 1981).

ANALYSIS AND FINDINGS

RQ1 Analysis

The RQ1 analysis tested what content type variables positively impacted producing higher retweets of Twitter brand posts. A simultaneous regression analysis was performed to assess the unique contributions of the ten content type variables (entered in as dummy-coded variables) in predicting retweets of Twitter brand posts. This simultaneous regression model accounted for a significant proportion of the variance in retweets of Twitter brand posts: $R2 = .04$, $p < .01$. This model revealed significant positive associations of contest/sweepstakes posts ($\beta = .08$, $p < .05$), new/now posts ($\beta = .10$, $p < .01$), and emoji posts ($\beta = .10$, $p < .01$) with retweets, significant negative associations of exclamation posts ($\beta = -.07$, $p < .05$) and education posts ($\beta = -.08$, $p < .05$) with retweets, and non-significant associations of social cause/corporate social responsibility (CSR) posts ($\beta = -.01$, *ns*), events posts ($\beta = -.04$, *ns*), question posts ($\beta = -.02$, *ns*), call to action posts ($\beta = .01$, *ns*), and fan content posts ($\beta = -.02$, *ns*) with retweets.

In the simultaneous regression analysis, descriptive mean comparisons were conducted to provide a post-hoc interpretation of the significant associations between the predictor variables and retweets. Contest/sweepstakes posts, new/now posts, and emoji posts were shown to have higher mean levels of retweets compared to posts without these types of content: $M = 594.38$ for contest/sweepstakes posts vs. $M = 339.26$ for posts without contest/sweepstakes; $M = 576.53$ for new/now posts vs. $M = 320.50$ for posts without new/now; $M = 731.09$ for emoji posts vs. $M = 340.17$ for posts without an emoji. Alternatively, exclamation posts and education posts were shown to have lower mean levels of retweets compared to posts without these types of content: $M = 301.42$ for exclamation posts vs. $M = 370.75$ for posts without exclamation; $M = 97.57$ for education posts vs. $M = 384.32$ for posts without education.

RQ2 Analysis

The RQ2 analysis tested what content type variables positively impacted producing higher replies to Twitter brand posts. A simultaneous regression analysis was performed to assess the unique contributions of the ten content type variables (entered in as dummy-coded variables) in predicting replies to Twitter brand posts. This simultaneous regression model accounted for a significant proportion of the variance in replies to Twitter brand posts: $R2 = .07$, $p < .01$. This model revealed significant positive associations of contest/sweepstakes posts ($\beta = .23$, $p < .01$) and new/now posts ($\beta = .07$, $p < .05$) with replies, significant negative associations of exclamation posts ($\beta = -.07$, $p < .05$) and education posts ($\beta = -.08$, $p< .05$) with replies, and non-significant associations of social cause/corporate social responsibility (CSR) posts ($\beta = .04$, *ns*), events posts ($\beta = -.05$, *ns*), question posts ($\beta = -.001$, *ns*), call to action posts ($\beta = -.02$, *ns*), fan content posts ($\beta = -.04$, *ns*), and emoji posts ($\beta = .02$, *ns*) with replies.

In the simultaneous regression analysis, descriptive mean comparisons were conducted to provide a post-hoc interpretation of the significant associations between the predictor variables and replies. Contest/sweepstakes posts and new/now posts were shown to have higher mean levels of replies compared to posts without these types of content: M = 130.80 for contest/sweepstakes posts vs. M = 33.29 for posts without contest/sweepstakes; M = 60.54 for new/now posts vs. M = 36.79 for posts without new/now. Alternatively, exclamation posts and education posts were shown to have lower mean levels of replies compared to posts without these types of content: M = 35.12 for exclamation posts vs. M = 41.43 for posts without exclamation; M = 7.35 for education posts vs. M = 43.62 for posts without education.

RQ3 Analysis

The RQ3 analysis tested what content type variables positively impacted producing higher likes of Twitter brand posts. A simultaneous regression analysis was performed to assess the unique contributions of the ten content type variables (entered in as dummy-coded variables) in predicting likes of Twitter brand posts. This simultaneous regression model accounted for a significant proportion of the variance in likes of Twitter brand posts: $R2$ = .05, p < .01. This model revealed significant positive associations of new/now posts (β = .09, p < .01) and emoji posts (β = .14, p < .01) with likes, a significant negative association of education posts (β = -.11, p < .01) with likes, and non-significant associations of contest/sweepstakes posts (β = -.06, *ns*), social cause/corporate social responsibility (CSR) posts (β = -.02, *ns*), events posts (β = -.03, *ns*), question posts (β = -.04, *ns*), exclamation posts (β = -.05, *ns*), call to action posts (β = -.02, *ns*), and fan content posts (β = -.01, *ns*) with likes.

In the simultaneous regression analysis, descriptive mean comparisons were conducted to provide a post-hoc interpretation of the significant associations between the predictor variables and likes. New/now posts and emoji posts were shown to have higher mean levels of likes compared to posts without these types of content: M = 886.93 for new/now posts vs. M = 558.07 for posts without new/now; M = 1405.57 for emoji posts vs. M = 568.60 for posts without an emoji. Alternatively, education posts were shown to have lower mean levels of likes compared to posts without these types of content: M = 167.37 for education posts vs. M = 650.87 for posts without education.

RQ4 Analysis

The RQ4 analysis tested whether the various significant impacts of the content type variables on producing higher (or lower) retweets, replies, and likes were unique and separate from the effect the number of brand page fans had on retweets, replies, and likes. It is plausible that all the effects of the content type variables on retweets, replies, and likes displayed above in RQ1-RQ3 analyses are just a function of the number of brand page fans (i.e., they may not account for

unique variance in retweets, replies and likes when the number of brand page fans is inserted into the analyses as a predictor variable). Simultaneous regression analyses were performed to assess the unique contributions of the respective significant predictor variables shown in the RQ1-RQ3 analyses above and beyond the additionally inserted Twitter brand page fans variable in predicting retweets, replies, and likes.

With respect to the RQ1 analyses, the simultaneous regression model that added the number of Twitter brand page fans as a predictor variable with the previously discovered significant predictor variables of contest/sweepstakes posts, new/now posts, emoji posts, exclamation posts, and education posts accounted for a significant proportion of the variance in retweets: $R2 = .42$, $p < .01$. This model revealed a significant positive association of the number of Twitter brand page fans with retweets: $\beta = .63$, $p < .01$. Concerning the significant content type predictor variables in this model, unique and significant associations for four of the five content type predictor variables were retained with retweets ($\beta = .07$, $p < .01$ for contest/sweepstakes posts; $\beta = .05$, $p < .05$ for emoji posts; $\beta = -.06$, $p < .05$ for exclamation posts; $\beta = -.06$, $p < .05$ for education posts), whereas the association for new/now predictor posts with retweets was now rendered non-significant ($\beta = .04$, *ns*).

With respect to the RQ2 analyses, the simultaneous regression model that added the number of Twitter brand page fans as a predictor variable with the previously discovered significant predictor variables of contest/sweepstakes posts, new/now posts, exclamation posts, and education posts accounted for a significant proportion of the variance in replies: $R2 = .12$, $p< .01$. This model revealed a significant positive association of the number of Twitter brand page fans with replies: $\beta = .23$, $p < .01$. Concerning the significant content type predictor variables in this model, unique and significant associations for three of the four content type predictor variables were retained with replies ($\beta = .22$, $p < .01$ for contest/sweepstakes posts; $\beta = -.07$, $p < .05$ for exclamation posts; $\beta = -.06$, $p < .05$ for education posts), whereas the association for new/now predictor posts with replies was rendered non-significant ($\beta = .05$, *ns*).

With respect to the RQ3 analyses, the simultaneous regression model that added the number of Twitter brand page fans as a predictor variable with the previously discovered significant predictor variables of new/now posts, emoji posts, and education posts accounted for a significant proportion of the variance in likes: $R2 = .37$, $p < .01$. This model revealed a significant positive association of the number of Twitter brand page fans with likes: $\beta = .58$, $p < .01$. Concerning the significant content type predictor variables in this model, unique and significant associations for two of the three content type predictor variables were retained with likes ($\beta = .10$, $p < .01$ for emoji posts; $\beta = -.08$, $p < .01$ for education posts), whereas the association for new/now predictor posts with likes was rendered non-significant ($\beta = .03$, *ns*). Table 2 displays the findings for the three models in this RQ4 analysis.

Table 2. Simultaneous regression analyses predicting retweets, replies, and likes of Twitter brand posts.

	Retweets		Replies		Likes	
	β	R^2	*β*	R^2	*β*	R^2
Predictor Variable:						
Contest/sweepstakes posts	.07**	42**	.22**	12**	N/A	.37**
Emoji posts	.05*		N/A		.10**	
Exclamation posts	.06*		.07*		N/A	
Education posts	.06*		.06*		-.08**	
New/now posts	.04		.05		.03	
Number of Twitter brand page fans	.63**		.23**		.58**	

** $p < .01$. * $p < .05$. N/A = Not Applicable in Model

Considering all findings reported above, results found: (1) unique and significant effects for contest/sweepstakes posts on increasing retweets and replies, (2) unique and significant effects for emoji posts on increasing retweets and likes, (3) unique and significant effects for education posts on decreasing retweets, replies, and likes, and (4) unique and significant effects for exclamation posts on decreasing retweets and replies (see Table 3). The unique contribution of these content-type variables was proven to be independent of the number of brand fans.

Table 3. Unique and Significant Effects by Content Type on Twitter Brand Posts.

Type of Post	**RQ1: Retweets (Viral Reach)**	**RQ2: Replies Message Deliberation)**	**RQ3: Likes (Affective Evaluation)**
Contest/Sweepstakes	+ Significant	+ Significant	Non-Significant
Emoji	+ Significant	Non-Significant	+ Significant
Education	– Significant	– Significant	– Significant
Exclamation	– Significant	– Significant	Non-Significant

DISCUSSION

Results suggest that the presence of contest/sweepstakes and emoji post content in Twitter brand posts creates more engaging content that receives significantly more retweets (viral reach). Contest/sweepstakes content creates significantly more replies (message deliberation). Emoji brand Twitter post content significantly increased likes (affective evaluation). In contrast, educational Twitter brand posts created significantly fewer retweets (viral reach), likes (affective evaluation) and replies (message deliberation), and exclamation Twitter posts created significantly fewer retweets (viral reach) and replies (message deliberation).

The content type variables were found to be significant irrespective of a brand having a lower or higher number of fans (see Table 4 examples). The other content variables tested also saw no significant associations with retweets, replies, and likes.

Table 4. Examples of Brand Twitter Page Posts with Retweets, Replies, and Likes.

Brand Name	Followers	Retweets	Replies	Likes	Contest /Sweeps	Emoji	Education	Exclamation
McDonald's	2,732,180	7,715	105	799	Yes	No	No	No
Starbucks	9,987,688	2,810	158	10,225	No	Yes	No	No
LG Mobile	197,575	416	1,378	1,053	Yes	No	No	No
Goldman Sachs	338,380	20	1	16	No	No	Yes	No

With the example brand posts in Table 5, the McDonald's contest/sweepstakes post was: "When we look at your ad, what do we see? Lovin', lot's of it, @Microsoft. RT to try & win an empowering Xbox One. http://lovewins.com." (See https://bit.ly/2Gc1tkK) (Xbox McDonald's Twitter post, 2015). The Starbucks emoji post was: "Try adding Starbucks Refreshers strawberries to your Shaken Iced #PassionTangoTea. 🍓🍓." (See https://bit.ly/2pLwfGa) (Passion Tango Tea Starbucks Twitter post, 2015). The LG Mobile contest/sweepstakes post was: "Follow us, reply with why you need a new phone using #LGG4sweepstakes, enter to win. Rules: on.fb.me/1N1aSrn." (See https://bit.ly/1UDoE4W) ("Win A New Phone LG USA Mobile USA Twitter post," 2015). The Goldman Sachs education post was: "@nyuniversity's John Sexton & $ GS' Lloyd Blankfein on globalization of #education." (See https://bit.ly/2DYYzdd) (Talks at GS Goldman Sachs Twitter post, 2015).

Table 5 presents study findings related to the five consumer social media goals, three forms of social media engagement, three brand goals, Twitter engagement type, and Twitter content type that produced significant positive or negative results.

Table 5. Consumer goals, forms of social media engagement, and significant effects by Twitter engagement and content type.

Consumer Goals Related to Social Media Gratifications	Forms of Consumer Social Media Engagement	Brand Goals Related to Consumer Social Media Engagement	Twitter Engagement Type	Twitter Content Type
Impression Management	Message Sharing	Consumer Reach to Build Brand Community	Retweet	+ Contest/Sweepstakes + Emoji – Education – Exclamation
Persuasion				
Information Acquisition	Message Deliberation	Consumer Response to Build Brand Relationships	Reply	+ Contest/Sweepstakes – Education – Exclamation
Social Bonding	Expression of Emotion	Consumer Recognition to Build Brand Bonds	Like	+ Emoji – Education
Emotion Regulation				

Note: + means significant increase and – means significant decrease

Contest/sweepstakes posts significantly increased retweets and replies, indicating consumer message sharing and deliberation. Consumer goals for social media engagement include impression management, persuasion, and information acquisition (Katz et al., 1973; Berger, 2014; Gao & Feng, 2016). A contest/sweepstakes could fulfill various consumer goals, whereas sharing (retweeting) a contest or sweepstakes would enhance the self or fill conversational space by sharing something useful, relevant, or special. A contest or sweepstakes could also serve identity-signaling as being associated with the brand or as a way to persuade others about the value or importance of the brand. The consumers fulfill their goal by sharing the message, which helps fulfill the brand goal of building a brand community and getting the message to more consumers.

Contest or sweepstakes content could also draw message deliberation (replying) as a form of information acquisition. Perhaps the post initiates recognition of a problem, whereas the consumer's goal becomes obtaining the object, service, or trip being given away. Their problem is that they do not yet have the contest or sweepstakes prize, and they are replying to the brand to acquire more information on how to get the prize. The consumer fulfills their goal by responding and the brand's goal by building the consumer relationship.

Emojis increased message sharing through retweets and increasing expressions of emotion through likes but not for influencing message deliberation with replies. Emojis are symbols created to express emotion. It makes sense that emojis in posts produce expressions of emotion through likes. A consumer's goal of social bonding is satisfied by liking a post that makes them feel an emotion, reinforcing the shared view with the brand, and reducing loneliness by building bonds with the brand and others who liked the post.

Emojis also increased message sharing through retweets. This can be seen as helping consumers fulfill their impression management goal by sharing an emotion. Sharing an emotion with an emoji can enhance the self, signal identity, and/or fill a conversation through emotions perceived as relevant, special, or common ground. Emojis could serve a consumer's goal of persuasion, whereas sharing an emotion can help persuade others about the consumer's feelings toward the brand. Persuasion happens on both a rational and emotional level. Consumer goal attainment in sharing emojis can help the brand obtain goals of building the brand community by reaching others with brand messages and building bonds with consumers through the expression of emotion associated with the brand.

Education across all forms of engagement decreased message sharing (retweets), message deliberation (replies), and expressions of emotion (likes). Why do educational brand messages not fulfill consumer's goals? It may be the environment within which posts are happening. Twitter offers a unique opportunity for conversation with posts limited to 240 characters. Educational content is usually associated with longer content, such as lectures, books, or documentaries. This idea is supported by Lister et al. (2015), who measured the results of a state social media health campaign and found that Twitter campaigns promoting healthy eating were more effective with empowering and engaging messages than educational ones.

Posts that included exclamation marks decreased message sharing (retweets) and message deliberation (replies). Regarding consumer goals of impression management, persuasion, and information acquisition, exclamation points are not seen as helpful. Marketers may see exclamation points as an indication to the consumer of importance so that they engage, but they have the opposite effect. Perhaps after so many years of advertisements using exclamation points and not delivering on the promised excitement, consumers have simply become skeptical of their true meaning. Adding an exclamation point to text does not make it exciting and engaging. The message itself must be exciting and engaging to the consumer.

IMPLICATIONS

Theoretical Implications

This study contributes to Twitter research, shedding further light on what type of brand content increases engagement. By studying previous research and uses and gratifications theory, this study makes associations to consumer social media goals, brand goals, and forms of social media engagement. It was the first to code content type in Twitter brand post text across a wide variety of 20 variables correlated with three forms of social media engagement: viral reach (retweets), message deliberation (replies), and affective evaluation (likes).

With these connections, a model could predict consumer response to social media posts (see Figure 1). Considering brand goals of building brand community (reach), building brand-consumer relationships (response), or building brand-consumer bonds (recognition), the appropriate form of social media engagement would be selected from message sharing, message deliberation, and expression of emotion. Each form would be a measure of success in each social media network, such as retweets, replies, and likes for Twitter. Looking at the associated consumer goals, a marketer would develop brand content to meet impression management and persuasion for increasing brand community through reach, information acquisition for strengthening brand relationships through response, and social bonding or emotion regulation for strengthening brand bonds through recognition.

For instance, if a marketer's objective is to build brand community by increasing consumer reach, they would create content that aligns with a consumer's goal of impression management to stimulate word-of-mouth brand message sharing. This could involve developing content that the marketer believes will enhance the target audience's image, signal their identity, or spark conversation in their social group. The content could be entertaining, useful, or unique, and should be relevant to both the brand and the consumer, establishing common ground between the brand, consumer, and their followers. The outcome would be an increase in consumer brand message sharing, thereby expanding consumer reach by aligning business goals with consumer goals. The success of this strategy could be measured by the number of retweets on Twitter.

Figure 1. Brand Consumer Goal Model for Social Media Engagement

Managerial Implications

Chasing popular general social media content types like videos, photos, or links only gets managers so far. They end up doing what every other marketer does and still need to know what to put in the video or picture and what message to say in the text. However, if a marketer or advertiser understands the consumer motivation behind the engagement, they should be more likely to create engaging content that meets marketing goals by considering consumer goals. The brand-consumer goal model for social media engagement is a strategic approach that starts with managers first considering various brand goals and then selecting the most appropriate consumer goal or the behavioral motivation behind using social media. This model guides managers in developing content that meets both brand and consumer goals and in connecting each goal to the appropriate form of engagement and specific metric per social media network, leading to a measurement of managerial success.

For example, if a sneaker brand has a new running shoe, the brand goal would be to build a brand community. The shoe is new and needs to build awareness through reach by message sharing. That brand goal connects to a consumer goal of impression management or persuasion. Instead of creating product feature educational content with calls to action, the manager considers the target audience's motivation. For a runner's target audience, impression management could come from sharing an inspirational tweet about other runners trying to break a record. They will never break the record but have personal records to achieve. Retweeting the

message makes them feel good about themselves, look good to others, and identify them as part of the running community. They could also use brand posts for persuasion, as others may have different opinions on whether the record can be broken.

Once consumers become aware of the new product, the manager wants the target audience to consider the brand and product for purchase. The brand goal becomes consumer response to build brand relationships. Message deliberation shows interest in purchase. The brand goal connects to a consumer goal of information acquisition. The runner audience may be inspired to break their own records and seek information on how to improve performance. Brand tweets with advice from coaches and features of the new running shoe being used to break the record become relevant to the consumer as it could help them achieve their goals. The consumer responds with replies or comments seeking further information or advice.

After purchase, the brand goal becomes consumer recognition to build brand bonds. The brand goal connects to consumer goals of social bonding and emotion regulation. The runner is now using the new shoe. Brand tweets about training to break the record invites recognition by a target audience who can relate it to their own ups and downs of training. Liking the post expresses those emotions. Expressing them with people of similar interests reduces loneliness and forms social bonds that can be built around the brand.

After messages are determined, specific content types can be considered. Posts could feature a contest for a trip to the record-breaking event or for consumers to enter their own records to receive personal training. Emojis could be used in tweets with reach and recognition goals (Araujo et al., 2015; Vargo, 2016). Product, economic, or ethical CSR messages could be integrated into the social media campaign with messages about the product's sustainability or non-profit causes that support running (Uzunoğlu et al., 2017). Finally, the marketer would want to ensure dialogue with the brand response to consumers, creating a two-way conversation (Colliander et al., 2015).

The results of this study have found that content type (photo, video, link, text-only) is not a significant factor for viral success. However, the message that goes with the content type matters. Marketers need to consider the message and could utilize messages for different stages of the buying cycle and consumer goals for word-of-mouth function based on brand goals of reach (message sharing), response (message deliberation), and recognition (affective evaluation). Generic insights, such as tweets with photos gaining more engagement, do not hold true when combined with the wrong type of message.

Limitations and Future Research

There are limitations to this research. The sample was based on a random selection of Twitter brand posts over one year. Would including previous or subsequent years affect the results? Of all the Twitter brand posts in the year, 1,000 posts were randomly selected. Would increasing the sample influence the results? The selected data came from Twitter. Although Twitter is a leading social media networking site, various platforms have different characteristics and could produce different findings. It is also acknowledged that many covariate variables could have influenced the results.

Future research should be extended to other popular social networking sites such as Instagram and LinkedIn. The research was limited to English-language Twitter posts in the U.S. Future research could be extended to other countries and languages. Beyond total retweets, replies, and likes, future research could also test effects based on various target market segments. Would younger groups such as Gen Z and Millennials respond differently than older groups such as Generation X or Baby Boomers? Further research could also specifically test brand posts developed for each brand goal, consumer goal, and engagement form through consumer surveys to see if each produced the predicted engagement type.

Acknowledgments

The authors would like to thank Unmetric for providing the data set for this study.

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APPENDIX: CODING SCHEME

Content Type Variable	Description
Post type	A simple indication of post type (link, image, video/GIF, or text only)
Number of characters	A simple character count including spaces
Number of words	A simple word count
Number of hashtags	A simple count of the number of hashtags used
Number of links	A simple count of the number of links (URLs) included
Number of brand mentions	A simple count of the number of times the brand name is included
Number of @ mentions	A simple count of the number of times a @ mention is included
Promotion/Price	Mention of a special discount, sale, or free offer
Contest/Sweepstakes	Mention of a contest (compete, skill) or a sweepstakes (chance)
Social cause/CSR	Mention of a non-profit, societal cause, or corporate social responsibility initiative
Events	Mention of a physical or online event occurring at a specific time
Celebrity	Mention of a celebrity name
Question	A simple indication of the presence of a question
Exclamation point	A simple indication of the presence of an exclamation point
Call to action	A simple indication of the text asking the reader to do something
Fan content	An indication that the post was written by a fan (customer), not the brand
New/Now	Mention of a word or words indicating something new (new, now, introducing)
Time/Date	Mention of a specific time, date, or deadline (including holiday, live)
Educational	Delivery of information to education or inform a topic (not product features)
Emoji	Use of one or more emojis

QRBD

Quarterly Review of Business Disciplines

October 2024

Volume 11
Number 1/2

A Journal of International Academy of Business Disciplines
Sponsored by University of North Florida
ISSN 2334-0169 (print)
ISSN 2329-5163 (online)