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Instagram Engagement with Brands during a Global Pandemic

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Abstract

Digital channel usage has skyrocketed through the pandemic, while Internet access is evolving into a necessity as people scramble to work, learn, shop, and exist from home. Over 246 million Americans used social networks to post pictures, likes and comments on content, or send private messages (Clement, 2020). Social media platforms allow research to quantify the behavioural component of customer engagement and examine this engagement rate construct within the research. The study gathered posts from the Instagram API for 37 companies and compared the engagement rate before and after the 15-days-to-slow-the-spread announcement was made. Results of a paired samples t-test indicated that engagement rate was higher during the pandemic than before, despite the fact that the number of posts stayed consistent, suggesting that consumers were potentially looking for more information during the crisis. A content analysis of the hashtags in the post found no significant difference in engagement rate for either pandemic-related hashtags or those with a focus on leisure (celebrities and holidays). Results suggest that brands do not need to increase their social media communication during a crisis, and that hashtags alone were not motivators of engagement.

Keywords: Instagram, Pandemic, Marketing Communication, Hashtags, Engagement Rate

Introduction

The global COVID-19 crisis has significantly altered the advancement of the economy both in the United States and around the world. The impact of the crisis knows no borders of geography or industry, and the subsequent lockdowns may have permanently changed consumers, linking them to the digital media like never before. Digital channel usage has skyrocketed through the pandemic, while Internet access is evolving into a necessity as people scramble to work, learn, shop, and exist from home. Mandatory lockdowns kept many people at home and caused major shifts in behavioural trends. Being locked away from their usual activities, consumers turned to digital media for entertainment and escape – playing games, browsing social media, and streaming more movies and television shows. The current research seeks to understand if consumers are engaging more with brands as they retreat into their digital lives.

Social Media

Despite an increase in digital media budgets, more U.S. users are experiencing negative attitudes towards advertisements on websites (47%) and online video clips (63%) (www.statista.com). This has left advertisers scrambling for alternative avenues to communicate with target markets and opened the door for social media communications. Social media and social networks provide users a platform through which they can share content. Social media marketing is a communication tool that is more interactive than traditional media such as television or the newspaper, because consumers are part of the brand communication process, allowing companies to interact with a great number of people. Companies can reach thousands of people with a single message. Additionally, it offers an immediate and efficient channel for companies to inform, connect with, and engage their customers, altogether changing the communication

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model. In 2019, an estimated 2.95 billion people were using social media worldwide. People use social media for several reasons, including social interaction, information seeking, and communicatory utility (Whiting & Williams, 2013).

The United States has one of the highest social media penetration rates, with over 70% of people owning a social media account. In 2019, over 246 million Americans used social networks to post pictures, likes and comments on content, or send private messages. Facebook is the market leader, with 2.5 billion monthly active users, while Instagram, a photo-based platform that was founded in 2010 and acquired by Facebook in 2012, had one billion monthly active accounts (Clement, 2020). A survey of U.S. social media users showed that the COVID-19 pandemic has further intensified consumer reliance on social media. As of March 2020, social media users in the United States were spending more time online, with 29.7% of respondents admitting to using social media one to two additional hours per day, and an additional 20.5% saying they used social media 30 minutes to one hour more than usual, per day. Overall, social networks offer consumers an opportunity to read blogs, watch videos, create content, review products, and a host of other activities to pass their time (Mehdi, 2018).

Crisis Communication

A crisis can be defined as 'an unpredictable event that threatens important expectancies of stakeholders and can seriously impact an organisation's performance and generate negative outcomes (Coombs, 1995). Since its origin in December 2019, the COVID-19 virus grew quickly into a global pandemic with unprecedented health and economic challenges. The virus created a situation of global crisis, leaving leaders, agencies, and brands searching for answers. The unexpected nature of crises creates uncertainty for people, generating a feeling of discomfort and uncertainty about the world, which they seek to remedy (Berger, 1987). The popularity of social media has significantly changed the ways in which we communicate. Within the crisis communication landscape, social media allows companies more control of the information that is released, while allowing consumers an opportunity to respond. This, in turn, replaces a traditional one-to-many model with a computer-mediated many-to-many model where companies talk to consumers, consumers talk to companies, and consumers have peer discussions with one another (Currie, 2009).

This richer availability of content provides a useful tool for consumers in crisis situations when information seeking becomes one tool that people use to reduce the uncertainty in a crisis (Brashers et al., 2000). They may consistently seek new information from varied sources, including personal contacts, mass media, and the Internet. With the diffusion of connectivity and social media, social networks are a readily available information source in a crisis (Jin, Liu & Austin, 2011; Spence et al., 2006), and evidence suggests that consumers are motivated to use social media to share and react to information, find emotional connections, and share their feelings during a crisis (Stephens & Malonem, 2009).

In times of crises, social media offers a valuable tool to businesses as well as consumers. Timely and adequate corporate responses are an important component of consumer confidence, and social media allow companies to communicate the corporate response to stakeholders quickly and efficiently (Hamilton, 2009). Existing research indicates that social media can be an effective tool to monitor potential crises, gauge consumer perceptions and identify concerns, and distribute information to stakeholders during crises (Wigley & Zhang, 2011). For instance, studies suggest that consumers are more likely to make positive comments about a crisis (Liu et al., 2013) and exhibit higher perceptions of an organisation's reputation (Utz et al., 2013) when they learned about a crisis from the organisation via social media than with traditional media or word of mouth.

The COVID-19 pandemic does not represent a brand crisis, but rather a shared human crisis that many citizens of the world were experiencing simultaneously. This offered brands an opportunity to connect with consumers who were actively searching for information. This connection could take the form of information about changes in policies or services or it could serve as a message of solidarity in the uncertainty of the circumstances. Regardless, the research expects that brands will choose to communicate with their stakeholders more during the time of crisis.

Consumer Engagement

Customer engagement has been defined in the marketing literature as "a customer's particular psychological state induced by the individual's specific interactive experiences with a focal engagement object (e.g., a brand)" (Brodie, Hollebeek, Jurić & Ilić, 2011, p. 257). This definition was later conceptualised as "a consumer's positively valenced brand-related cognitive, emotional and behavioral activity during or related to focal consumer/brand interactions" (Hollebeek et al., 2014, p. 154).

Early social media research occasionally equated the size of a brand's fan base (e.g., the number of people who follow a brand's presence on Instagram) with social media engagement and successful utilisation of the medium (Tuten & Solomon, 2015). Further, some researchers have argued that engagement, in the broad sense, is a psychological state of mind that serves as an antecedent of interactive behaviours on social media (e.g., Syrdal & Briggs, 2018; Voorveld et al., 2018; Calder & Malthouse, 2008). However, practitioners (and social media platforms themselves) describe social media engagement in terms of behaviours specific to a particular platform, such as likes, comments, and/or shares on Facebook. Similarly, recent research defines engagement with social media as "a set of measurable interactions that consumers take on social media in response to brand-related content" (Swani & Labrecque, 2020, p. 282).

The factors that drive social media engagement are divided broadly into 3 groups: characteristics of the creator (age, sex, number of followers) the post's context (day, time), and features of the content, (words, tags, images, videos, and so on) (Jaakonmäki et al., 2017). Research suggests that consumer engagement behaviours lead to positive outcomes for the firm, including financial performance (Lin et al., 2015), self-brand connection (Hollebeek et al., 2014), and loyalty (Helme-Guizon & Magnoni, 2019). It is also clear that engagement behaviours help achieve content distribution objectives. That is, the amount of interaction a piece of content receives factors into platform algorithms that determine where that content will appear. Some social media platforms rate branded content lower in their formulas, relative to non-branded content. This makes engagement an important metric for gauging overall brand engagement and prestige (Swani et al., 2017) as they aim to push out content that is desirable for followers.

Social media platforms allow research to quantify the behavioural component of customer engagement and examine this engagement rate construct within the research. Engagement rate shows how much followers were engaged to the published posts. At the surface, each platform has a set of vanity metrics, like followers, likes, and impressions that are tallied and presented to both individual and business users. Engagement rate is a "formula that measures the amount of interaction social media content earns relative to reach or other audience figures" (Hootsuite, 2019). For most social media platforms engagement rate is calculated by calculating the number of interactive behaviours (e.g., likes, shares, comments) a post receives compared to the total number of followers a brand or organisation has on a social media platform (Hootsuite, 2020). These metrics can make a user feel popular, but engagement rate adds perspective to these numbers using a formula that measures the amount of interaction content receives relative to some figure of audience size. This allows us to consider the popularity of the content relative to the user's size and presence.

At an aggregate level, there are a variety of ways to calculate a useful engagement rate with a social network account. The basic formula considers the total engagements per post compared to some important audience measure. The most common engagement rate formula is engagement rate by posts (ER post), which measures overall engagements with posted content compared to account followers and the number of posts made.

H1: Engagement rate per post will be higher during the pandemic than the period before the pandemic.

H2: Businesses will post more on average during the pandemic than the period before the pandemic.

Methods

The first part of the study focused on Instagram posts from the top 50 companies in the BrandZ rankings of top global brands for 2019. Of the 50 brands on the list, 42 had Instagram accounts. The final sample was limited to

companies with over 100,000 followers, leaving a total of 37 companies. Posts were gathered separately from the Instagram API for the period before and after March 16. March 16 represents President Trump's 15 days to slow-the-spread guidelines that began the restrictions. Posts were pulled from January 1 - March 15 (75 days) for each company and then for March 16 - May 31 (77 days).

The engagement rate metric was calculated using the formula: ERpost = (likes+shares+comments)/count of followers*100. In addition, the number of posts per day was calculated as total posts/number of days in the period.

Results

To compare each company's engagement rate for each period in the study, a paired samples t-test was used. The t values showed a significant difference in engagement rate between the paired samples. The engagement rate per post was higher during the pandemic period than the period before, supporting H1. There was no significant difference between the number of posts per day between the periods, showing no support for H2. The means are presented in Table 1 and the results in Table 2.

Table 1: Paired Samples Means

		Mean	*N*	*Std. Deviation*	*Std. Error Mean*
ER	ER Pre	0.7	37	0.54	0.09
	ER Post	0.87	37	0.88	0.15
Posts per day	PPD Pre	0.82	37	0.9	0.15
	PPD Post	0.78	37	0.92	0.15

Table 2: Paired Differences

		Mean	*Std. Deviation*	*Std. Error Mean*	*95% Confidence Interval of the Difference*		*t*	*Sig. (2-tailed)*
					Lower	*Upper*		
ER	ER Pre - ER Post	-0.17	0.5	0.08	-0.34	0	-2.08	0.05
Posts per day	PPD Pre – PPD Post	0.04	0.68	0.11	-0.19	0.27	0.36	0.73

Content Analysis

The difference in engagement rate between the periods provides interesting insights into consumer use of extra time on social media. To further investigate differences in engagement rate, this research looks to understand the impact of one particular content feature on engagement rate—hashtags. Based on our review of crisis communication, we expect that consumers will engage more with pandemic-related posts because they are actively seeking out information related to the crisis.

In another vein, we question whether time spent on social media is used to seek information related to leisure (Fulton, 2006). Rani (2018) found that hedonic motivations had the strongest impact on customer engagement and engagement was highest for users seeking trends and entertainment. This casual leisure offers immediate intrinsic gratification and may include play, relaxation, passive entertainment, active entertainment, sociable conversation, and sensory stimulation (Stebbins, 1997). Social media browsing may take place for pure enjoyment. This study uses two types of content that consumers might seek for leisure, in the form of celebrities and holidays. Each of these could represent a variety of combinations of information-seeking for leisure. The study expects:

H3: Instagram posts with hashtags related to a holiday will have a higher engagement rate than those that do not.

H4: Instagram posts with hashtags related to COVID will have a higher engagement rate than those that do not.

H5: Instagram posts with hashtags related to a celebrity will have a higher engagement rate than those that do not.

Methods

The second study pulled all of the hashtags from the Instagram posts during the pandemic period in the first study. A total of 438 hashtags were used by the companies within the period. Each hashtag was coded 0 or 1 for containing each of the following content categories:

reference to a holiday, reference to the COVID pandemic, or reference to a celebrity. Engagement rate was calculated, the same as in study 1. Table 3 contains a list of all the hashtags for each category.

Table 3: Hashtags by Category

Holiday	*COVID*	*Celebrity*
mentalhealthawarenessmonth	healthcareheroes	aliciavikander
nationaldoctorsday	healthforall	alihewson
nationalnursesday	athome	andreagassi
nationalnursesweek	bwelltogether	bono
nursesappreciationweek	coronavirus	catherinedeneuve
nursesweek	COVID19.	chloegracemoretz
worldhealthday	essentialworkers	francisfordcoppola
armedforcesday	firstresponderfridays	gigihadid
chanelmothersday	flattenthecurve	kaiagerber
classof2020	getthroughthistogether	larisalatynina
commencement2020	homeworkers	maradona
earthday	mademoisellestayshome	michaelphelps
earthday2020	momsareessential	muhammadali
graduation2020	servingthosewhoserve	nicolasghesquiere
halfway2halloween	socialdistancing	pele
happymothersday	stayathome	seanconnery
memorialday	stayhome	sofiacoppola
militaryappreciation	stayhomeboxoffice	sophieturner
mothersday	togetherathome	steffigraf
nationalmilitaryappreciationmonth	washyourhands	stormreid
nationalsuperheroday	wfh	taylorswiftcityoflover
teacherappreciationweek	workfromhome	zendaya
teachersappreciationday		zidane
womenshistorymonth		

Results

To test the hypotheses, a univariate model was run with engagement rate as the dependent variable and each of the categories (holiday, COVID, and celebrity). The results do not support any of the hypotheses. Contrary to expectations, there was a significant effect for posts that contained a reference to a holiday ($p < .01$) in the opposite direction. Posts with a holiday-related threshold had lower engagement rate (.440) than posts without a holiday hashtag (.613). The results are presented in Table 4.

Table 4: Content Analysis Results

Source	*Type III Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Corrected Model	3.921a	3	1.307	2.705	.045
Intercept	29.627	1	29.627	61.302	.000
Holiday	3.320	1	3.320	6.869	.009
COVID	.153	1	.153	.316	.574
Celebrity	.910	1	.910	1.882	.171
Error	209.752	434	.483		
Total	399.233	438			
Corrected Total	213.673	437			

a. R Squared = .018 (Adjusted R Squared = .012)

Discussion

Corporate investment in digital experiences will likely continue to grow as consumers develop new routines for living and working. Some of the changes may be temporary; however, it seems doubtful that consumers will return completely to the old ways of operating, as customer expectations for digital alternatives have grown. Customer reliance on digital consumption continues to grow, as will their expectations for brands' digital experiences. This study looks at a snapshot in time, with the approximately 2.5 months before the pandemic and the 2.5 months following the first regulations around the COVID-19 virus. In that snapshot, the research from these Instagram posts indicates that engagement rate per post was higher for the sample companies during the pandemic than before, despite the fact that there was not a significant difference in the quantity of posts made.

Contrary to what was expected from crisis communication, brands were not posting more content during the pandemic. Despite a consistent amount of content, engagement rate for posts during the pandemic period was higher, indicating that consumers were turning to social media. This may be because people are spending more time on social networks each day, or it may be because they are seeking more entertainment and information from those networks. It aligns with previous research on uncertainty and information search. Consumers may have been motivated to connect, support, or question businesses on social media as they were actively searching for information to reduce the pandemic-induced uncertainty. Thus, an increase in social media interaction could be a result of greater time availability or of a cognitive effort to reduce uncertainty through information-seeking.

The content analysis included in this study gives some insight into the motivations for social media engagement. Consumers did not engage more with posts that included hashtags with direct reference to the pandemic. This does not necessarily mean that they were not searching for information about collateral effects from the pandemic. For instance, consumers may have been searching for information about operating hours, pickup and delivery options, or schedule changes. These activities would have been motivated by the crisis and the need to reduce uncertainty, with no need for a direct reference to COVID. Further, with an extended crisis situation, consumers may look to avoid crisis-relevant information. It is possible that they used their social networks as an escape from negative communication. There is some additional evidence that there may have been utilitarian motivations for engagement in the results that hashtags with celebrities saw no difference in engagement rate and those referencing holidays saw a negative impact on interactions.

In addition, the study offers some practical guidance. The crisis situation did not appear to motivate additional communication from brands, yet engagement with content was higher. Brand accounts may be well served in being consistent with the amount of content they post and focus on the quality, rather than oversaturating their follower's feeds. Consumers may not need more brand communication during a crisis, so companies may want to invest efforts in making sure that their messages are in line with their goals. While these results do not indicate why consumers were interacting more in the pandemic period, it is clear that these heuristics alone were not motivating consumer engagement. Although hashtags are a common social media practice, they may not be a key motivator, so businesses should not rely on them to promote engagement. Considering the cost of celebrity endorsements, the negative impact of celebrity-related hashtags indicates that firms need to consider how they leverage their celebrity partnerships in social media. Other options like mentions and photos should be considered. Finally, the lack of significance for pandemic-related hashtags may be an indication of how people were searching for content. Hashtags allow consumers to search for information that fit a common theme, but users may have been interacting with content organically on their feed or seeking the brand out specifically.

Future Research

Obviously, the sample size in both time frame and company size is small. Future research should expand the list of companies explored, while identifying other important differentiating characteristics. Further, future research should consider the content of the posts in more detail. We looked specifically at the use of certain types of hashtags and the effect on engagement rate. The cognitive, affective, and behavioural cues in the posts may offer

more insight on consumer motivations. Additionally, the effects of industry type is an important area to consider. Certain industries may naturally see higher risk and motivate information search on social media during a crisis (financial services, health services, education, and so on). Finally, other characteristics of the organisation, like size, location, and leadership, may provide insight into consumer information needs in a crisis situation.

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