



## Beauty Brands on Instagram: The Effects of Brand Communication on Customer Engagement in Social Media

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**Beauty Brands on Instagram:**

**The Effects of Brand Communication on Customer Engagement in Social Media**

**Abstract**

**Purpose:**

This study is designed to examine the effects of brand communication on customer engagement in a visual-focused social media platform, Instagram.

**Design/methodology/approach:**

Through scraping 1,931 visuals posted to Instagram by seven major beauty brands in the United States, this investigation performs a content analysis on different features of Instagram posts, including post formats, post content, and the usage of hashtags, tags, and emojis. This study further examines how different Instagram message features affect customer engagement in the visual social media platform, indicated by likes and comments.

**Findings:**

The results of this investigation show that Instagram posts including influencer and promotion content are the most effective to generate a higher level of customer engagement. Message vividness (post formats and emojis) and interactivity (the usage of hashtags and tags) present divergent effects on the number of likes and comments.

**Practical implications:**

The findings of this study provide insights into distinctions between two dimensions of customer engagement on Instagram, and practical implications for message strategies of brand communication in visual social media.

**Originality/value:**

This article is pioneering in that it exposes the effects of different message features (post content, message vividness, and message interactivity) in brand communication on customer engagement in visual social media, which is a relevant topic for both brand managers and scholars in the era of social media marketing.

**Key words:**

Brand communication, customer engagement, visual social media, content analysis

## Introduction

Visual-based social media are growing exponentially and have become an integrated part of the customer engagement strategy of various brands (Rietveld *et al.*, 2020). Instagram is a widely used visual social media platform for sharing photo and video content. As of February 2019, Instagram has over two million advertisers and 25 million business profiles. There are one billion active users on Instagram monthly and 200 million Instagrammers visit at least one business profile daily (Instagram, 2020). A prominent phenomenon in social communication on Instagram is the rise of information exchange in the form of images or videos, which is primarily aimed at millennial consumers (Clasen, 2019). The younger generation today tends to spend more time on Instagram than Facebook and Twitter, brands therefore enjoy higher engagement rate with their total followers compared to other popular social media (Forsey, 2020). Visual-based communication is more effective than text-based, as visual social media is easier to convey emotional expression, exchange information, and demonstrate presence (Lee *et al.*, 2015). The visual-focused nature and interactive functions embedded on Instagram encourage people to follow and share their passions about favorite brands. Instagram further serves as a discovery engine for brands, and brand-led communications can have particular strong impacts on people's shopping journeys, which has gone beyond awareness generation and brought huge potential for social selling and e-commerce (Facebook, 2019).

Brand communication in social media has been extensively investigated in marketing and advertising, referring to any piece of brand-related communication "distributed via social media that enables Internet users to access, share, engage with, add to, and co-create" (Alhabash *et al.*, 2017, p. 286). Key research areas of brand communication in social media include attitudes toward social media and social media advertising (Jung *et al.*, 2016), content characteristics

(Wen & Song, 2017), user-generated-content (UGC) (Liu *et al.*, 2017), social media influencers (Lim *et al.*, 2017), and user/consumer engagement (Tsai & Men, 2013). Given the increasingly significant role that Instagram plays in brand communication, the purpose of this investigation is to understand how brands leverage social media message strategies on Instagram to achieve customer engagement. Through scraping 1,931 visuals posted to Instagram by seven major beauty brands in the United States, this investigation performs a content analysis on different features of Instagram posts, including post formats, post content, and the usage of hashtags, tags, and emojis. This study further examines how different Instagram post features affect two dimensions of customer engagement, indicated by likes and comments. Theoretical and practical implications are further discussed to help brand managers in developing an effective brand communication strategy to enhance customer engagement on visual social media.

**Literature Review**

***Consumer-Brand Engagement Behaviors in Social Media***

While customer engagement with brands has been widely studied, the conceptualization and operationalization are varied with different platforms and contexts (Pentina *et al.*, 2018). Customer engagement, which is a consumer’s level of cognitive, emotional, and behavioral investment in specific brand interactions (Hollebeek, 2011), and explicitly accounts for consumers’ interactive brand-related dynamics (Brodie *et al.*, 2011). Prior studies on the consumer-brand engagement include psychological state that emerges in the process of consumer interactions with brands (Brodie *et al.*, 2013), or motivational states leading to interaction with brands and brand communities (Calder *et al.*, 2009). Specific to social media, the theoretical concept of “interactive experience” that underlies engagement is also at the heart of social media. Social media users may engage in interactive behaviors (using features offered by online

applications) in brand communities, such as commenting on the brand, expressing support or criticism, or sharing information with social connections (Gummerus *et al.*, 2012). Therefore, customer engagement in social media involves emotional, communal, and functional engagement (Chen and Pain, 2019). Emotional engagement describes positive effects, appreciation, enjoyment, satisfaction, and attachment (Mersey *et al.*, 2012), while functional engagement and communal engagement are categorized as behavioral engagement. Functional engagement refers to “a social media user’s interaction with other users in the process of co-creating, conversing and sharing the content” (Lim *et al.*, 2015, p.159), providing the indicators that evaluate the effectiveness of how an organization engages users (Neiger *et al.*, 2012). While functional engagement is more focused on users share content from brands, communal engagement occurs when users are involved with a brand or promotional messages (Chen and Pain, 2019).

In practice, there are various metrics to consider when measuring customer engagement with brands in social media, including the number of followers, likes, comments, and shares (Hoffman and Fodor, 2010). It is significant for companies to monitor follower growth, as the number of followers reflects network size and serves as an indicator for popularity (De Veirman *et al.*, 2017). Moreover, customers can engage in several behaviors in social media, including liking, commenting, and sharing. “Liking” a post is a way to give positive feedback or to connect with things users care about. From the sender’s perspective, sending a “like” has the same effect as smiling or saying a positive word to someone (Tina *et al.*, 2017). Fundamentally, “liking” is a truly simple and low-cost way to communicate positive feedback. An industry study found that the motivation is simple when people “like” brands and companies, as they make “like” decisions based on practical reasons, such as hoping to receive coupons and regular updates from their favorite brands (Seiter, 2019).

A comment is another way to communicate feedback, but it is different from “liking” a post. Burke and Kraut (2016) referred to “commenting” as “combination communication,” revealing that personal messages are more fulfilling to recipients than the one-click communication of “likes.” Commenting on social media is regarded as the highest level of engagement, because commenting takes time and cognitive effort to articulate users’ ideas and thoughts (Krebs and Lischka, 2017). Prior study found it is more satisfying for social media users to comment or receive comments than the one-click communication of “like” (Burke *et al.*, 2011). Discussion through comments was found to generate a greater sense of influence and greater involvement for those sharing online stories (Oeldorf-Hirsch and Sundar, 2015).

In summary, this investigation specifically focuses on the behavioural aspect of customer engagement in social media, adopting two metrics – likes and comments – to present consumer engagement, as they provide important insights on content consumption and user interaction with brands on Instagram. The number of likes signals the extent to which the content is interesting to users, and the number of comments quantifies the level of discussion in social media. Unlike Twitter and Facebook with their easy sharing features, Instagram does not allow users to share the brands’ posts on their own Instagram pages. Hence, this investigation primarily focuses on these two dimensions of customer engagement activities with Instagram branded content.

**Brand Communication in Social Media**

Brand communication in social media refers to communication between the brand and customers across a range of social media platforms, which “enables Internet users to access, share, engage with, add to, and co-create” (Alhabash *et al.*, 2017, p. 286). Prior study classified brand communication on Facebook into firm-created and user-generated types, revealing that both types of brand communication influence brand awareness/association, whereas user-

generated social media brand communication has a positive impact on brand loyalty and perceived brand equity (Schivinski and Dabrowski, 2015). Moreover, brand communication across social media enables consumers to have all aspects of dialogue with companies, brands, and other consumers. Dialogues with brands improve consumers' brand experiences, therefore customers' attention and expectations have been transferred from rationalizing product attributes and service qualities to emotional engagement and parasocial experience (Mangold and Faulds, 2009). Branded social media activities are useful to improve brand awareness and brand liking, promote customer engagement and loyalty, inspire consumer word-of-mouth communication about the brand, and potentially drive traffic to brand location and offline stores (Ashley and Tuten, 2015). In fact, organizations across different economic sectors have integrated social media into their business models as a part of their brand communication strategies (Voorveld, 2019).

Furthermore, there are three crucial factors to influence the effectiveness of brand communication: source characteristics (i.e., credibility, attractiveness, and likeability), message characteristics, and platform characteristics (Voorveld, 2019). As today's consumers become increasingly active in online environments, information about the brand must be relevant to the consumers if the company wants the consumers to engage with the brand in self-relevant ways (Schmitt, 2012). In particular, visual content in brand communication was found to significantly influence digital visual engagement on Instagram and positively impact purchase intentions in visual communications (Valentini *et al.*, 2018). Given that visual content in brand communication is closely associated with customer engagement, the present study next focuses on deciphering message characteristics in brand communication on Instagram and their impacts on customer engagement.

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***Brand Communication Message Characteristics***

Media richness theory can serve as a fundamental theoretical framework to explore Instagram message features. The previous studies revealed that the various levels of engagement behaviors are influenced by key social media contextual factors, namely media richness and content trustworthiness (Cao *et al.*, 2021; Moran *et al.*, 2019). Instagram can be regarded as a rich medium, as social media messages include advanced features like videos, audios, images, tagging, emojis, interactive links, or other elements that encourage users to interact and engage with the content. This study specifies Instagram content features from the following aspects: post content, message vividness (post formats and the use of emojis), and message interactivity (the usage of hashtags and tags).

***Post Content***

To achieve a higher user engagement on Instagram, brands need to make their post content attractive and engaging. Note that the term *content* rather than *message* is more appropriate for social media as it includes a variety of information like UGC. The brand communication content can be divided into three types: organizational, promotional, and relational (Ahuja and Medury, 2010). While promotional communication like price promotions and persuasive letters are intended to quickly generate sales and other responses, relational communication focuses on enhancing customer’s attitudes and loyalty in the long term by providing such content as new product information, usage tips, or invitations to events (Ahuja and Medury, 2010). Cvijikj and Michahelles (2013) further categorized visual content in social media into informative content, entertaining content, and remunerative content. These visual content types are based on the purpose of delivery of the message in social media.



Visual content in brand communication is associated with consumer engagement, which has been accelerated with the diffusion of technology innovation in social media. Visual content is used as one of the best strategies for stimulating online engagement (Hollebeek, 2011). A previous study recognized the importance of visual brand communication, such as specific features of visual social media content, exploring how human faces depicted in photos are more shareable than other types of content (Bakhshi *et al.*, 2014). By examining six beauty companies' Facebook pages, Ashley and Tuten (2015) discovered that creative message strategies, such as experiential, images, and exclusive messages, are associated with customer engagement. Kujur and Singh (2020) confirmed the effects of visuals with information, entertaining, and remunerative content in social media on consumer engagement, which further leans to consumer-brand relationship. Specific to Instagram, a recent study investigated 46.9 K of Instagram posts from 59 brands, showing that visual emotional and informative appeals encoded in brand-generated content influence customer engagement, indicated by likes and comments (Rietveld *et al.*, 2020). Therefore, the following research question is proposed:

*RQ1: How does Instagram post content published by beauty brands affect customer engagement indicated by the number of (a) likes and (b) comments?*

### *Message Vividness*

Message vividness and interactivity are two important concepts in media richness theory, and media vividness describes the breadth and depth of the message (Steuer, 1992). The use of various media formats (e.g., text, photo, audio, and video) together is helpful for increasing message usefulness (Kent *et al.*, 2003). Since Instagram only allows users to post a text with either photos or videos, the current study posits there are two levels of vividness on Instagram post content: low and high. Video is seen as a high vivid content, whereas an image is seen as a low level of vividness (Bakhshi *et al.*, 2014). There are divergent findings regarding the impacts

of different levels of message vividness on attitudes and behaviors. Kim and Yang (2017) found that posts with photos are positively related to the number of likes, but negatively to comments. Moran *et al.* (2019) highlighted that photo-based posts on Facebook are more effective on average than video-based posts to trigger marketer-desired, behavioral engagement through analyzing 757 Facebook-based brand posts. It appears that visual formats (images or videos) in brand communication are a crucial factor in predicting customer-brand engagement in social media.

In addition to visual formats, emojis are a significant element of message vividness, which play an important role in brand communication to promote customer engagement (McShane *et al.*, 2021). An emoji is a symbol of an emotion or an idea that delivers in electronic messages. Emojis are frequently used as a language for interpersonal and organizational communication in social media (Vidal *et al.*, 2016). In an attempt to increase customer engagement, organizations have adapted their digital messages to include resources such as emojis in their communications with customers (Arya *et al.*, 2018). Emojis facilitate emphatic communication between companies and customers, therefore have a positive effect on building interpersonal relationships (Das *et al.*, 2019). In addition, companies tend to develop a language similar to the one employed by customers, which “humanizes” the brand (Hede and Watne, 2013). McShane *et al.* (2021) examined how these pictographs shape online brand engagement on Twitter (i.e., likes & retweets), demonstrating that emoji presence increases engagement with tweets, with more emoji leading to more likes and retweets. The effect of emojis on brand engagement varies depending on the nature of the interplay between emojis and text. Casado-Molina *et al.*, (2019) concluded that communications using emojis for customer service and

those used in positive contexts for emphasis are related to higher user engagement. Hence, this investigation proposes the following research question and hypothesis:

*RQ2: How does Instagram post format (videos and images) published by beauty brands affect customer engagement indicated by the number of (a) likes and (b) comments?*

*H1: The use of positive emojis in Instagram posts published by beauty brands is positively related to customer engagement indicated by the number of (a) likes and (b) comments.*

### *Message Interactivity*

Message interactivity is defined as the extent to which communication parties could act on one another, on the communication medium, and on the messages interchanged (Liu & Shrum, 2002). Social media, such as Facebook and Instagram, can create interactive conversations among numerous users, thus are considered to be a high level of interactivity. There are different ways to increase interactivity on Instagram. One prevailing trend on this platform is to use hashtags. A hashtag is a keyword phrase and capitalizes the first letter of each word instead of space with a pound sign (#), such as #Sephora. The branded hashtags containing the brand, products, or a specific campaign can make the content easier to find, encourage audience interaction, and clue users in on industry trends. Brand engagement was found to be driven by its followers, the number of likes and comments on a post, as well as the use of specific hashtags, which can gain viral spreads on the Instagram platform (Kang *et al.*, 2018). Moreover, using relevant, targeted hashtags on Instagram stories or posts was suggested as one of the best ways to get discovered by new audiences on Instagram, which can generate more engagement, followers, and customers of the business (Chacon, 2021). For example, the posts delivered by Fortune 500 companies that use more than five hashtags demonstrate the most interactions (TrackMaven, 2010).

Furthermore, as an interaction mechanism, Instagram allows to mention someone in posts or comments by writing “@” followed by the username, e.g., “@peterthomasrotheofficial”, which is called as “tagging”. Instagram users can tag people in a photo or video that they share on Instagram. Companies can tag other brands and influencer accounts with the symbol @ in order to increase brand exposure, create a community around the brand, and boost engagement rate. Pentina *et al.* (2018) discovered that tagging brand names in posted photos of products or self on the brand’s social media wall inevitably increase one’s visibility. Thus, mentions and tagging on Instagram can be a good way for brands to get attention and spread their products or services. Tagging and using a brand-related hashtag in social media are triggered by a more intense emotional component as a reaction to the brand news and status updates, which could stimulate others’ reactions and increase the overall engagement activity or the number of brand followers (Pentina *et al.*, 2018). Therefore, the following hypotheses are proposed:

*H2: The number of hashtags in Instagram posts published by beauty brands is positively related to customer engagement indicated by the number of (a) likes and (b) comments.*

*H3: The use of tags in Instagram posts published by beauty brands is positively related customer engagement indicated by the number of (a) likes and (b) comments.*

**Method**

***Beauty Brand Samples***

Instagram has redefined the beauty industry in the past several years. With over 800 million active accounts, Instagram has become the go-to destination for people to connect with their favorite beauty brands, creators, and experts. Active Instagram users in the beauty areas contribute to an average of 33 posts per day (Instagram Business, 2018). More importantly, Instagram has been used as virtual stores by beauty brands with feeds acting as virtual product displays. Therefore, the beauty brands can serve as a perfect case to explore the effects of brand

communication on consumer engagement in the visual-based social media context. This study sorted the top 500 most followed Instagram business and creator profiles according to follower count, and there are seven beauty companies among the top 500 list (<https://socialblade.com/instagram/top/500>).

### ***Data Collection and Coding***

This study employed a quantitative content analysis to examine the effects of brand communication in visual social media Instagram on customer engagement. A total of 1,931 Instagram post samples from seven beauty companies' accounts were collected from October to December in 2019. Raw data is obtained through an Instagram Python API, which is called *Instagram-scraper*. *Instagram-scraper* is an open-source command-line application written in Python that scrapes and downloads Instagram's posts. The program can specify the target Instagram account to scrape their posts, including photos, videos, texts, and timestamps, comments, likes, etc. For each post, the following information is saved into the *Excel* data file: photo or video, URLs, texts, timestamps, and the number of comments and likes.

Guided by the extensive literature review, this study developed a coding manual that examined: 1) Instagram post content, 2) post formats, 3) use of emojis, 4) use of hashtags, and 5) use of tags. Instagram post content is manually coded by an investigator. Regarding other Instagram message characteristics, such as post format, the usage of tags, hashtags, and emojis, the present study wrote a Python program to parse raw data that was obtained from the Instagram crawler into a human-readable format, and automatically performed the coding. The customer engagement of each post generated can be measured by the number of likes and comments on Instagram. Therefore, the number of likes and comments were collected from each post. Figure 1 presents a typical example of Instagram post features from a sampled beauty brand, *Sephora*.

<INSERT FIGURE 1 HERE>

**Measurements**

*Independent Variables*

*Post content.* Beauty brands' Instagram post content is classified into nine groups, including: 1) face, 2) close-up face, 3) product, 4) tutorial, 5) swatch, 6) influencer, 7) event, 8) promotion and 9) other. *Face* is a photo or a video of a particular make-up look, along with text describes the products are used. *Close-up face* is a photo or a video of a make-up look with a focus on either eyes, lips, brows, or cheek bones. *Product* is a photo or a video of the beauty or skincare product(s). *Tutorial* is a photo or a video to teach people how to use certain products or how to create a makeup look. *Swatch* is a photo or a video of the product rubbed onto the skin or finger to show users the color or texture. *Influencer* is a photo or a video of a beauty influencer with no particular focus on the face. *Event* is to share a calendar or information about offline events. *Promotion* contains coupons, samples, sale information, or advertisements of their products. *Other* is the group that cannot fit into any other categories above.

*Post formats.* For each Instagram post, either photo(s) or a video associate with text content was coded by a Python program automatically. Photo(s) were ended with .jpg file extension, and a video were ended with .mp4 file extension. The program identified .jpg as photo and .mp4 as video, and then saved the information into a CSV file.

*Hashtags.* A hashtag is a keyword phrase with a pound sign (#). To determine if the number of hashtags relevant to customer engagement, the number of hashtags was coded as 0, 1, 2, etc. For each Instagram post, there was a text content associate with photos or videos in the dataset. The program read each text content and filtered the hashtag by finding the # signs. The

array function in Python could count how many hashtags in each post and output the information in the coding CSV file.

*Tagging.* Tag is used to identify someone else in a post, with a @ sign. Tag was coded as presence or absence by the program. Similar to the hashtags, when the program read the text content, it was also searching for the @ symbol in each text content. Finding a @ symbol in the text content was marked as presence (“1”); otherwise, it was coded as absence (“0”).

*Emojis.* Emoji is a symbol of an emotion or an idea that delivers in electronic messages. The research selected all emojis symbols for each post and generated a score for each post based on the *Sentiment of Emojis* (Novak *et al.*, 2015). Prior studies developed the emoji sentiment lexicon, *Emoji Sentiment Ranking* ([http://kt.ijs.si/data/Emoji\\_sentiment\\_ranking/](http://kt.ijs.si/data/Emoji_sentiment_ranking/)). The ranking table has 751 most frequently used emojis with specific sentiment scores that range from -1 to 1. A higher score represents more positive emojis. Therefore, the ranking table can be used for automated sentiment analysis. The researchers implemented the ranking table into the program and then generated an emoji score for each post.

### *Dependent Variables*

*Customer Engagement.* The current study identified two behavioral aspects of engagement on Instagram: the number of likes and the number of comments, using 1) the number of likes and 2) the number of comments to measure customer engagement on Instagram.

## **Results**

Seven beauty companies’ Instagram data were obtained in January 2020. A summary of seven beauty brands’ Instagram post data and user engagement is shown in Table 1. *Huda Kattan* was the most popular beauty brand among these seven companies, having almost double Instagram followers compared to other beauty brands. This brand also generated the



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second highest number of likes and comments per post, even though their media uploads only had 595 in total. *Kylie Cosmetics*'s average number of likes per post was higher than *Huda Kattan*. *Anastasia Beverly Hills* was ranked the fourth in the follower count but generated the largest media uploads (14,572) on Instagram.

<INSERT TABLE 1 HERE>

As indicated in Table 2, descriptive statistics showed that the number of likes per post for those seven beauty companies' Instagram posts varies from 4,502 to 855,192, with the average count of 83,710 ( $SD = 9410.36$ ). The number of comments ranges from 0 to 484,214, and the average number is 1,191 per post ( $SD = 15917.26$ ). As for independent variables, the number of hashtags ranges from 0 to 9 per post, and the average number is 1.54 ( $SD = 1.56$ ). The emoji score scales from -0.459 to 13.421, with a mean of 0.83 ( $SD = 0.95$ ), suggesting the emojis in most Instagram posts convey positive sentiments. Almost three quarters (77.4%) of the 1,931 posts are images and 22.6% are videos. Three quarters (75.2%) of the posts tag people, and one quarter (24.8%) of the posts does not tag or mention anyone. Regarding post content, 82.7% of the posts fall into the following four categories: face (22.9%), close-up face (10.7%), product (37%), ad tutorial (12.1%).

<INSERT TABLE 2 HERE>

Since the dependent variables were counting data, negative binomial multiple regression models were performed using *IMB SPSS Statistics* and results were shown in Table 3. The omnibus tests showed that two testing models have significant impacts on customer engagement indicated by likes ( $\chi^2 = 57.13, p < 0.001$ ) and comments ( $\chi^2 = 13.45, p < 0.001$ ). The first research question explored the effect of Instagram post content published by seven beauty brands on customer engagement. With the category of face as a reference group, influencer was found to



be the most effective to generate likes ( $B = 1.06$ ,  $IPR = 2.87$ ,  $p < 0.001$ ), while promotional content is more likely to trigger customer comments ( $B = 1.87$ ,  $IRR = 6.49$ ,  $p < 0.001$ ). The second research question explored the effect of Instagram post format on customer engagement. Setting image as a reference group, the results showed that videos are effective to stimulate comments ( $B = 0.28$ ,  $IRR = 1.32$ ,  $p < 0.001$ ), but tend to deter generating more likes ( $B = -0.61$ ,  $IRR = 0.54$ ,  $p < 0.001$ ).

The first hypothesis examined the relationship between the emoji score and the number of likes and comments. An emoji score was generated for each post based on the Emoji Sentiment Ranking Table. A higher emoji score indicates a higher positivity of the emojis in posts. Results revealed that users tend to like (H1a,  $B = 0.13$ ,  $IRR = 1.14$ ,  $p < 0.001$ ) and comment (H1b,  $B = 0.68$ ,  $IRR = 1.97$ ,  $p < 0.001$ ) on posts with higher emoji score, suggesting higher engagement rates with positive emoji-based sentiments. Therefore, H1 is supported by this study. The second hypothesis proposed that the more beauty brands use hashtags in their Instagram posts, the higher interaction rates they will obtain. The regression models showed that the more hashtags, the less customer engagement in terms of the number of likes (H2a,  $B = -0.22$ ,  $IRR = 0.80$ ,  $p < 0.001$ ) and comments (H2b,  $B = -0.38$ ,  $IRR = 0.68$ ,  $p < 0.001$ ). Thus, H2 is rejected by this study. The effect of tagging activity on customer engagement was examined (H3), which is partially supported. Instagram users were found to be more likely to comment on posts that tagged beauty influencer's accounts (H3b,  $B = 0.33$ ,  $IRR = 1.39$ ,  $p < 0.001$ ). Inclusion of tagging in a post, however, did not lead to an increase in the number of likes (H3a,  $B = -0.23$ ,  $IRR = 0.80$ ,  $p < 0.001$ ).

In summary, the results of this investigation showed that Instagram posts including influencer and promotion content are the most effective to generate a higher level of customer

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engagement. However, message vividness (post formats and emojis) and interactivity (the usage of hashtags and tags) present divergent effects on the number of likes and comments.

<INSERT TABLE 3 HERE>

**Discussion and Implications**

With the rise of information exchange in the form of images or videos in social communication, visual-based social media like Instagram become an essential part for brands to engage with consumers. To better understand message strategies in brand communication, the current study examines how beauty brands leverage Instagram message features to achieve customer engagement by sampling 1,931 Instagram posts published by the most popular seven beauty brands. The findings break down customer engagement into likes and comments and show essential factors that draw online customers in.

Different Instagram post contents have significant impacts on customer engagement behaviors, but present divergent effects. The post content including an influencer profile is more likely to trigger a higher level of likes and comments, which signals the increasing importance of social influencer marketing. Influencers are social media users who have established credibility, big number of followers, expert level of knowledge, or social influence in their fields. Beauty companies often hire or interact with popular influencers, who have a high level of engagement on Instagram and maintain a positive relationship with their followers. In fact, major well-known beauty brands have considerably increased their spending of marketing budget on influencers, because beauty customers tend to listen to those influencers rather than company advertisements. In particular, female beauty customers trust third-party product reviews most and influencer marketing can easily sway their purchasing decisions (Gerdeman, 2019). In addition, the post content focused on promotion is more successful to elicit comments among nine content

categories. Most promotion posts require social followers to tag someone under the post, share information to obtain discounts, or enter a giveaway, which lead to more user/customer comments. Thus, for beauty companies, the creative content should incorporate such elements as influencer portraits or promotion in brand communication on Instagram to enhance customer engagement.

In terms of message vividness, there has been a debate on using videos or images on Instagram to promote customer engagement. Prior study suggested that videos generate two times more engagement than other post types, while others argued that brands cannot rely on either picture or video content when it comes to building a successful Instagram marketing strategy (Moran *et al.*, 2019). In this study, 77.4% of 1,931 posts are images and 22.6% of them are video format. Video posts tend to generate more comments but less likes, because users tend to quickly glance over photos and decide if they like it or not, while videos take much more time to process. However, video content can receive more comments compared to images, as the highly vivid posts contain much more information than images which inspires user to discuss and comment. It appears that beauty branded posts on Instagram should have a reasonable mix of both pictures and videos in order to implement an effective brand communication strategy. Moreover, emojis have been widely used on Instagram for beauty companies to communicate with customers. Emojis convey what words cannot and give brand personality and identity. The research findings indicate that Instagrammers tend to like and comment on a post with a higher emoji score, which proves that users are more engaged with emojis that convey a positive sentiment. Unlike face-to-face communication, Instagram posts lacking non-verbal elements may cause less accuracy in brand messages. Using emojis can express more emotions, define more accurate contexts, and make the posts more appealing than pure text. Positive emojis leave

audience an enthusiasm impression, in consequence, encouraging the liking behavior and a more depth conversation.

Regarding message interactivity, hashtags and tagging are two interactive functions on Instagram. Using hashtags can highlight a product’s key selling points by beauty brands (e.g., #crueltyfreebeauty), or promote a company with the brand’s name (e.g., #NYXCosmetics). Industry studies reveal that posts by Fortune 500 companies that use more than five hashtags tend to trigger the most interactions. However, in our study, the number of hashtags ranges from 0 to 9 per post with an average of 1.54. Different from the previous studies, the present research suggests the more hashtags beauty companies use, the less likes and comments Instagram user express. Therefore, when hashtags are used to draw attention, to organize, and to promote, the quantity does not matter, and it is more about relevance. As a discovery platform, hashtags should be relevant to the post and consider what would help to search brand information. Furthermore, tagging is a direct way to demonstrate the beauty company’s interaction with other influential accounts or promote their brands on Instagram. There are many influential accounts in the beauty industry and tagging those influencers in the post make the posts show up in those influencers’ “tagged in” section. This will enhance the exposure of the post and enlarge the audience crowd within the beauty market, explaining why three quarters of these posts tagged influencers. The findings here show that customers are more likely to comment on posts that tagged with beauty influencer accounts. Therefore, it is suggested that beauty brands should further encourage their followers to tag the brand to their photos and mentions them in their comments.

For those beauty industry professionals, this study emphasizes the importance of message strategies in brand communication, addressing the significance of customers’ participation,

sharing, and interactivity in social media. It may help companies deepen the perception of a product brand, form a deep impression, and generate a good communication effect. A successful post on Instagram published by beauty brands should meet follower's needs, improve customer engagement, and finally stimulate a user's desire to purchase. This study provides a comprehensive review of how beauty brands craft their brand communication strategies to achieve desired outcomes. Message vividness and interactivity may present divergent effects on customer engagement. Video content is more ornamental and shows the multi-dimensionality of the product to encourages more conversations in the comments. Tagging an influencer expands the audience base and leads to a greater discussion. Moreover, hashtags can be used to draw attention, organize content, and promote brands, but they should be related to the company's overall campaign strategies. Lastly, the impacts of influencers on customer behavior signals the increasingly critical role of influencer marketing on Instagram.

### **Limitations and Future Research**

This paper is constrained by several limitations, which should be considered when interpreting the results, and could be addressed by future research. First, the Instagram post samples were selected among the most popular beauty company's accounts on Instagram from October to December in 2019. Post frequency about products or promotion might be higher than non-holiday seasons and thus influence customer engagement behaviors. Future research may be developed over a span of the whole year to avoid seasonal promotion. Second, seven beauty companies were chosen based on their follower counts and a larger sample size is needed to improve the internal and external validity of a study. Lastly, it should be noted that the current study is focused on users' commenting behavior through the total number of comments but lacking analyzing the content from each comment. It will be worthwhile to perform textual

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analysis on those comments and identify users’ sentiments toward brands from Instagram interactions. The findings presented here can serve as a starting point for both academic scholars and industry practitioners to better understand how the beauty industry leverages visual social media like Instagram to perform brand communication strategies.

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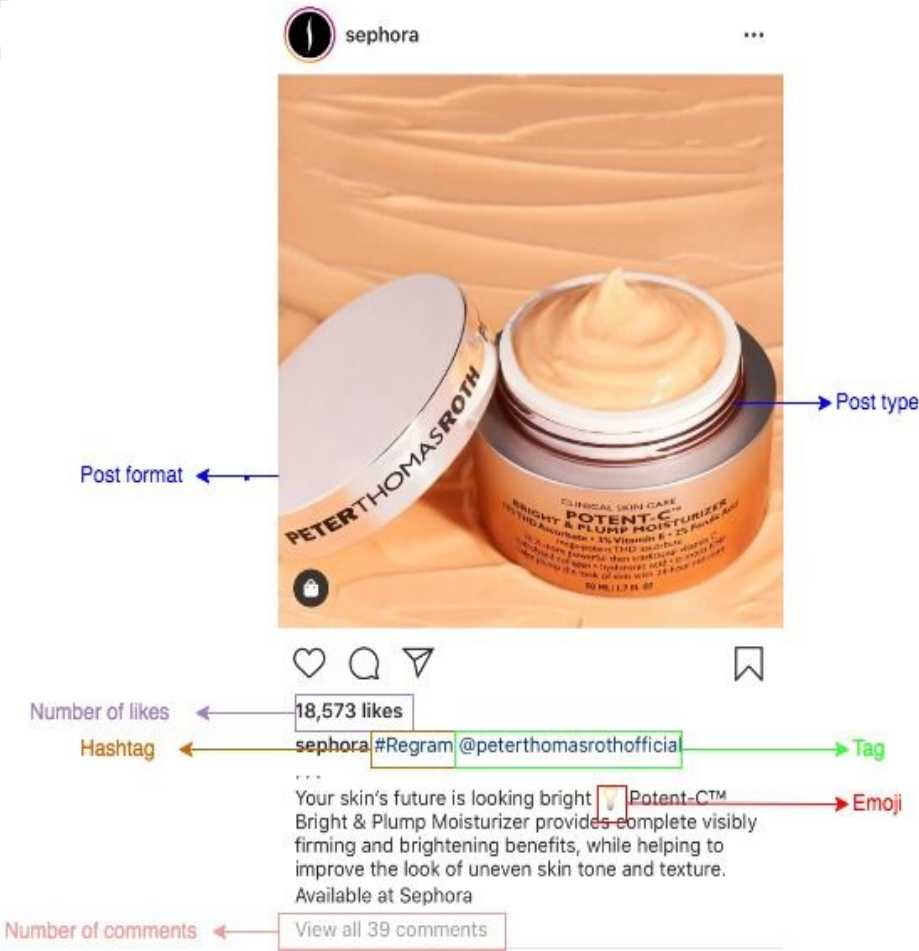


Figure 1: An Example of Instagram Post Features

Table 1: Leading Beauty Brands Ranked by the Number of Instagram Account Followers

Rank by followers	Beauty Brands	Instagram Followers	Media Uploads	Average Likes	Average Comments
47 <sup>th</sup>	Huda Kattan	40.6 M	595	176,854.00	2,351.24
140 <sup>th</sup>	M·A·C Cosmetics	23.4 M	7,672	66,004.00	274.40
149 <sup>th</sup>	Kylie Cosmetics	22.9 M	6,235	198,258.00	713.52
179 <sup>th</sup>	Anastasia Beverly Hills	20.2 M	14,572	72,758.20	369.08
196 <sup>th</sup>	Sephora	19.3 M	6,597	42,353.50	95.08
327 <sup>th</sup>	NYX Professional Makeup	14.4 M	7,261	25,249.90	66.36
372 <sup>nd</sup>	Too Faced Cosmetics	13.3 M	7,304	34,422.30	180.08

Table 2: Descriptive Statistics of Instagram Post Features and Customer Engagement

Dependent Variables						
Features		Minimum	Maximum	Mean	SD	
Number of comments		0	484214	1190.82	15917.26	
Number of likes		4502	855192	83709.09	9410.36	
Independent Variables						
Categories Variables		Continues Variables				
Features	Percentage	Features	Minimum	Maximum	Mean	SD
Format		Number of Hashtags	0	9	1.54	1.56
Video	22.6%	Emoji score	-.459	13.421	.827	.948
Image	77.4%					
Content						
face	22.9%					
close-up face	10.7%					
product	37.0%					
tutorial	12.1%					
swatch	4.6%					
influencer	4.1%					
event	0.5%					
promotion	3.8%					
other	4.2%					
Tag						
Presence	75.2%					
Absence	24.8%					

Table 3: Negative Binomial Regression Models of Instagram Post Features and Customer Engagement

Features	Likes			Comments		
	<i>B</i>	<i>SD</i>	IRR	<i>B</i>	<i>SD</i>	IRR
<b>Content</b>						
Face	--	--	--	--	--	--
Close-up Face	0.34 ***	0.08	1.40	0.30***	0.86	1.35
Product	-0.18	0.07	0.84	0.69***	0.70	1.99
Tutorial	0.61***	0.11	1.83	0.80***	0.99	2.23
Swatch	-0.08	0.12	0.93	0.13	0.13	1.14
Influencer	1.06***	0.13	2.87	0.89***	0.12	2.44
Event	-0.52	0.34	0.59	-0.56	0.34	0.57
Promotion	0.17	0.13	1.19	1.87***	0.14	6.49
Other	0.31*	0.14	1.37	1.12***	0.13	3.06
<b>Format</b>						
Image	--	--	--	--	--	--
Video	-0.61***	0.08	0.54	0.28***	0.77	1.32
<b>Emoji</b>	0.13***	0.03	1.14	0.68***	0.03	1.97
<b>Hashtags</b>	-0.22***	0.01	0.80	-0.38***	0.13	0.68
<b>Tag</b>	-0.23***	0.06	0.80	0.33***	0.60	1.39
Likelihood Ratio	557.055***			2415.324***		
Chi-Square						
Note. * $P < 0.05$ , ** $P < 0.01$ , *** $P < 0.001$ , IRR: Incidence Rate Ratios						

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