Consumer Engagement With Visual Content on Instagram: Impact of Different Features of Posts by Prominent Brands

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ABSTRACT
Despite Instagram’s popularity among the Y and Z generation consumers, social media research investigating factors that can influence customer engagement on Instagram remains limited. The uses and gratifications theory underpins this study which investigates how social media marketing of prominent Malaysian brands on Instagram impacts customer engagement. ScrapeStorm web scraper tool was used to extract posts and comments from the public Instagram accounts of four notable Malaysian brands. The findings reveal that different features of social media affect consumer engagement differently. Social media influencers had a positive impact on consumption and creation-based customer engagement. Contextual features are negatively correlated with contribution-based customer engagement. In terms of content, videos had greater engagement rates, followed by images of people and images without people. Results also show that consumers reacted positively to informative textual content. Some implications for theory and practice are highlighted.

KEYWORDS
Customer Engagement, Instagram, Social Media Influencers, Social Media Marketing, Uses and Gratification Theory

INTRODUCTION
Often associated with community, transparency, conversation, and connectedness (Power, 2014), social media encourages two-way communication, feedback, and information-sharing (Mutum and Wang, 2011). Content shared on social media can be instantly accessed by individuals worldwide. Malaysians are motivated to use social media to learn about new events and updates, keep in touch with friends, share content, find funny and engaging content, complete work tasks, and research or discover new products to buy (Seraph Studio, 2019; YouGov, 2019). These data imply that social media is becoming more substantial in the lives of Malaysians, as compared to traditional media.

Among the social media platforms, Instagram is ranked fourth, after Facebook, YouTube, and WhatsApp, with 11 million active monthly users (Kemp 2018). Nonetheless, it has been suggested...
that although Facebook has the biggest market share, Instagram is more impactful and has recorded significantly higher engagement rates (Yew, Suhaidi, Seewoochurn, & Sevamalai, 2018). Instagram is more popular than Facebook among millennials (those born between 1981 to 1996) and the Gen Z (those born between 1997 to 2012), who make up the biggest user base, as evidenced by the yearly increases in its number of users from this demographic (Tran, 2020). Instagram users grew by 70% from 2016 to 2018 (Wong, 2018). Its popularity among the younger generations might be due to its free, user-friendly, creative, and interactive in-app visual tools.

Changes in consumer behavior have signaled that a digital presence in the form of a website is no longer enough (Mutum and Wang 2010; Mutum et al. 2018). Instead, companies must quickly adapt to the consumer trend toward social media and learn to reach customers on these platforms. Utilizing social media technologies to improve creativity, communications, and offers to increase shareholder value describes social media marketing; companies use social media marketing for brand-awareness building, promotion, market research, and customer relations (Jaakonmäki, Müller, and vom Brocke, 2017; Tuten and Solomon, 2018). Research has indicated that social media positively influences consumer purchasing behavior (Chen & Lin, 2019). Many Malaysian brands are already exploiting social media marketing capabilities. However, the impact of social media marketing is largely unclear. Managing social media content remains a challenge for many companies trying to identify what is suitable for their audience and can, thus, increase their business value (Trkman & Trkman, 2018). Moreover, studies on Instagram as a social media marketing tool have been quite limited.

This study addresses this research gap by investigating user engagement with the Instagram accounts of four prominent Malaysian brands: D’Herbs, Naelofar, Duck Cosmetics, and myBurgerLab. Specifically, the study seeks to identify the type of visual content with the most customer engagement. The four Malaysian brands were chosen for being notable Malaysian brands from different industries with strong social media presences, especially on Instagram, as evidenced by their high numbers of Instagram followers: as of November 2019, D’Herbs had 447,000 followers, Naelofar had 675,000, Duck Cosmetics had 155,000, and myBurgerLab had 48,000. Previous studies examining social media marketing in Malaysia have focused on powerful Malaysian corporations with large marketing budgets, such as Air Asia. Unlike such large corporations, most SMEs have limited marketing and advertising budgets; as such, they maximize their social media activities. The uses and gratification theory (UGT) have been used by several social media studies to reveal that entertainment and relational content are the main reasons for social media use (Dolan, Conduit, Fahy, & Goodman, 2016). Additionally, as recognized by Tsai and Men (2017), UGT can also examine the cultural effects of social media engagement; this could be valuable for understanding Malaysian consumers in the context of commercial content on social media. Thus, the study is hoped to add to a better understanding of the UGT in the social media marketing context.

The study also adds to marketing research by using a web scraper software which allows us to use the latest technology, including artificial intelligence and natural language processing, to analyze huge amounts of publicly available data on social media. Social media customer analytics is still relatively new, with most previous studies focusing on textual rather than visual data. Thus, the insights from this research are expected to help determine the types of social media marketing features that produce the highest user engagement, including identifying content types that most effectively stimulate engagement.

LITERATURE REVIEW

Customer Engagement With Social Media

Customer engagement can be defined as a personal psychological state that can be conceptualized through a customer’s behavior; this extends beyond purchase to include elements such as interaction with brands (Brodie, Hollebeek, Juric, & Illic, 2011; Thakur, 2018; van Doorn et al., 2010). Although
previous research has explored antecedent forms of customer engagement, there have been limited approaches using social media marketing frameworks. Thus, researchers have attempted to identify and categorize customer engagement behaviors within social media frameworks, a complex and challenging process given that customer engagement is personal and substantially varies between social media platforms (Voorveld et al. 2018). Following the work of researchers such as Schivinski, Christodoulides, and Dabrowski (2016) and Liu, Shin, and Burns (2019), the current study adopts the Consumers’ Online Brand-Related Activities (COBRAs) framework developed by Muntinga, Moorman and Smit (2011). The COBRAS framework recognizes three types of engagement with brand-related content on social media, distinguished by their degree of activeness: consumption, contribution, and creation (Muntinga et al., 2011). Consumption describes passive engagement, such as following, reading, and viewing content. It represents the minimum level of engagement (Dolan et al., 2016); that is, following an Instagram account requires the least effort. Contribution describes moderate customer engagement behaviors, including liking and commenting, which represent a mid-range level of engagement. When a user leaves a comment, it provides an opportunity for the company to reply, improving brand relations. Creation describes the most active engagement level and includes producing customer-generated content. Producing brand-related content on behalf of the firm requires the most effort and can, therefore, be perceived as a high-level endorsement (Liu et al., 2019; Schivinski et al., 2016).

Consumer engagement importantly measures social media marketing performance, which is critical given there is no direct link between social media activities and financial indicators; thus, companies must rely on key social media marketing metrics as proxies for the effectiveness of the tactic implemented (Jaakonmäki et al., 2017; Paine, 2011). These proxies include follower numbers, views, likes, and comments. Companies select certain key metrics as proxies based on the goals set when their marketing strategy was planned.

According to Yoong and Lian (2019) and Malthouse et al. (2016), positive consumer engagement leads to positive purchase behavior. Consumer engagement encourages customers to think about brands on a personal level, which improves their buying intentions. For instance, Oh et al. (2017) found that consumer engagement behavior positively correlates with a movie’s box-office revenue. Additionally, consumer engagement positively influences brand loyalty (Islam, Rahman, & Hollebeek, 2018) because interactions between customers and brands improve consumer understanding of the brand by enabling direct and instantaneous communication. Such interactions mean customers experience the brand’s personality and feel appreciated; later, they reciprocate by purchasing the brand’s products and leaving positive reviews.

Nonetheless, previous customer engagement studies centered on measuring purchase behaviors, ignoring other engagement metrics that can impact the network of potential customers responsible for the brand’s performance (Liu et al., 2019). Studies of engagement must move beyond learning about purchase behaviors to understand every aspect of interaction with brands, regardless of whether a customer makes a purchase (Vivek, Beatty, & Morgan, 2012). Customer engagement, such as online reviews, acts as word-of-mouth and is vital for building public trust in a brand. One study on social media in the airline industry (Seo & Park, 2018) indicated that electronic word of mouth expressed a form of commitment shaped through special attachment consumers had to brands; this impacts the perceptions of other consumers. Thus, customer engagement acts as an important tool for creating brand awareness, meaning brands can also learn a lot about their target market through social media engagement. Given different products and brands target different market segments, social media marketing strategies should differ accordingly. Companies can then decide on the most appropriate strategy by analyzing their customer engagement.

Customer Engagement With Social Media Influencers

Jaakonmäki et al. (2017) emphasized the role creator-related features play in social media engagement, implying that influencers affect user engagement. In this context, a social media influencer is an
Instagram user with many followers who can inspire other users to buy certain products through reviews, recommendations, or product placements (Khalid, Jayasainan, & Hassim, 2018; Yew et al., 2018). Influencers can be celebrities or politicians, or simply be substantially visible within a specific niche.

Almost 75% of marketers have engaged with influencers to endorse brands on social media; this is because influencers can strengthen brand engagement, help a brand reach a larger audience, and instill trust in the brand (Hughes, Swaminathan, Marshall, & Katz, 2019). Researchers have investigated how influencers are able to inspire their followers, with some findings suggesting authenticity as a key factor (Nouri, 2018). Followers consider an influencer to be authentic when they perceive them to be behaving as their true selves. In turn, this authenticity increases the trustworthiness of brands they endorse. Another factor is relatability (Nouri, 2018), especially in niche markets. For example, when a fashion influencer from the female Muslim demographic (often described as a “hijabista”) promotes hijab brands, their followers relate to the suggestion because they also wear the hijab and perhaps have the same preferences as the influencer. Perceived interactivity is arguably another major factor for an influencer’s power (Mutum et al., 2018). This fosters the idea of a connection between influencers and followers and the notion that influencers care about the opinions of their followers, which can result in positive outcomes for the promoted brands. However, the effectiveness of using influencers for social media marketing is still disputed. First, it is difficult to determine efficiency (Yew et al., 2018). Despite previous research trying to evaluate the performance of influencers using multiple approaches, most only considered content engagement rate (Yew et al., 2018), ignoring other types of engagement. Second, as argued by Mutum (2018) in the context of bloggers, some users might avoid engaging with content posted by their favorite bloggers if they recognize the content as “sponsored” rather than genuine; this might also be true for Instagram influencers.

The Malaysian Context

In the context of Malaysian SMEs, Musa et al. (2016) found that brand reputation, consumer attitude, and consumer engagement have a moderate relationship with online performance. In another study, Parveen, Jaafar, and Ainin (2015) interviewed social media managers of large Malaysian organizations from various industries. Their findings indicated that organizational performance, in terms of customer service, accessibility of information, and cost control, are greatly impacted by social media activities. Moreover, Salleh, Hashima, & Murphy (2015) analyzed the Instagram content of prominent Malaysian restaurants and found that Instagram marketing was gaining popularity in Malaysia and that images engaged customers more than text. Correspondingly, Hanaysha (2016) suggested owners or managers of restaurants in Malaysia emphasize social media marketing to facilitate communication and improve relationships with clients in a better, simpler, and more cost-effective manner. In a study on the Malaysian automotive industry, Kormin and Baharun (2016) described how the social media marketing strategies of Malaysian car brands prioritized customer engagement. Elsewhere, Barhemmati and Ahmad (2015) indicated that Malaysian consumers maintain positive attitudes towards brands that engage with clients using social media, which promotes positive purchase behavior. Despite these previous studies, there remains an absence of understanding of the relationship between the online behavior of Malaysian consumers and Malaysian SMEs. The potential of valuable information derived from social media customer engagement is enormous because the data arrives directly from consumers. For companies, the outcomes of this sort of research can mean advantages for managing customer relations. Park, Ok, and Chae (2016) demonstrated that marketing and research for cruise tourism could be conducted using Twitter data for social media analytics. Their study helped cruise-tourism marketing teams to improve their marketing strategies. Studies by Liu, Shin and Burns (2019), Thomaz et al. (2017), Risius and Beck (2015) and Grover and Kar (2018) have also used big data analytics to Twitter data to study customer engagement with brand-related content, while Mariani, Mura and Di Felice (2018) analyzed big data collected from Facebook to study customer engagement with tourism. However, big data analytics for Instagram-based customer engagement has
been limited; most studies have focused on influencers rather than brand-related aspects (Jaakonmäki et al., 2017; Yew et al., 2018).

**Uses and Gratification Theory and Customer Engagement**

The U&G theory is often used to understand why and how users actively use a specific medium to satisfy their needs (Severin and Tankard, 1997). To understand why customers would engage with social media content, it is imperative to understand why customers use social media. The uses and gratification theory (UGT) assume that people communicate with purpose and motive, that media users are active participants who choose their media and content, that communication behavior depends on psychological and social characteristics, that the media competes with other communication channels, and that people are in control of the media rather than influenced by it. This explores and recognizes consumer autonomy to choose the media that satisfies their needs and fulfills their gratification requirements (Ko, Cho, & Roberts, 2005; Ku, Chu, & Tseng, 2013). Consequently, the same media content might have different impacts on different individuals.

Nonetheless, users may want different things from social media compared to traditional media. Studies have shown that people use social media to socialize, pursue information, pass time, find entertainment, communicate, give opinions, share information, and carry out types of surveillance not possible with conventional media (Musa, Azmi, and Ismail 2016; Whiting and Williams 2013). A recent study by Phua, Jin, and Kim (2017) suggested the main reasons people use Instagram are to show affection, follow fashion, and represent sociability. The study also showed that Instagram users demonstrated the highest engagement with and commitment to brands.

Despite recent research trying to use UGT to understand why people use social media, there is still a limited understanding of the theory from a marketing perspective. Highlighting the complexity and dynamic nature of social media impact on user engagement, Dolan et al. (2016) posited four main categories of social media content and proposed several hypotheses regarding customer engagement behavior associated with these categories based on UGT. They proposed that informational content, such as product information, and remunerative content, such as promotions, facilitate passive but positive engagement, while entertaining content and relational content facilitate active and positive engagement. However, they have not presented conclusive results proving their hypotheses.

Most studies on social media customer engagement have considered Twitter or other forms of textual content; most have been conducted in Western countries or populous Asian countries like China or India. Also, most studies have only measured content engagement; that is, the number of likes and comments (for example, Bakhshi, Shamma & Gilbert, 2014). Applications of UGT in the social media marketing context remain largely nonexistent.

Thus, this study explores the impact of informational content, entertaining content, remunerative content, and relational content on customer engagement, contributing to the development of UGT from a marketing perspective. This research takes a holistic approach to examining the impact of the social media marketing of prominent Malaysian brands using publicly available data from Instagram; it is based on not only content features but also contextual and creator-related features contributing to all types of customer engagement, including consumption, contribution, and creation types.

**Conceptual Framework and Hypotheses**

Figure 1 illustrates the conceptual framework proposed for this study. Adapting the approach of Jaakonmäki et al. (2017), social media marketing is divided into creator-related, contextual, and content features; consumer engagement behavior follows the typology developed by Muntinga, Moorman, and Smit (2011), which recognized consumption-, contribution-, and creation-based behaviors. Creator-related features include the creator’s background and their follower numbers. In this study, creator-related features include the brand’s founder’s followers on their personal Instagram, as well as their age and gender. Several studies have shown that creators with large followings attract substantial engagement and that female creators attract higher levels of engagement.
than male creators (Jaakonmäki et al., 2017; Suh, Hong, Pirolli, & Chi, 2010). Therefore, the following hypothesis was proposed:

**H1**: The founder’s background affects a brand’s customer engagement on social media.

Contextual features include post frequency, post location, and the day, date, and time of posts. However, this study only considers post frequency. Previous studies have shown no consistency in this regard. For example, Jaakonmäki et al. (2017) indicated that contextual features affect customer engagement, but Mariani, Mura, and Di Felice (2018) demonstrated that post frequency on Facebook had no statistical impact on customer engagement. Considering this study concerned Instagram, the following hypothesis was proposed:

**H2**: Post frequency has an impact on customer engagement.

Content features can be divided into visual and textual contents. In this study, visual content includes videos and images with and without people, while textual content describes the captions posted with visual content. Although studies have shown that photos with people generate higher engagement than photos without people (Bakhshi et al., 2014; Jaakonmäki et al., 2017), different results have been obtained from different studies for video. For instance, while De Vries, Gensler, and Leeflang (2012) indicated that videos promote greater engagement because videos are more vivid, a study by Klassen et al. (2018) demonstrated that this notion is not accurate for Instagram. The following hypothesis was thus proposed regarding visual content engagement:

**H3**: Videos achieve higher levels of engagement than images (with or without people).

This study evaluates the effect of textual content on customer engagement using criteria introduced by Dolan et al. (2016) in their study of social media engagement behavior from a UGT perspective. They proposed that informational content and remunerative content facilitate passive but positive engagement, while entertaining content and relational content facilitate active and positive engagement. Considering also that other studies have suggested that content associated with emotions and entertainment tends to produce higher levels of engagement while informative content tends to produce lower levels of engagement (Hellberg, 2015; Jaakonmäki et al., 2017), the following hypothesis was proposed:
H4: Entertainment and relational content contribute to higher levels of customer engagement.

This contextual framework and the proposed hypotheses are designed to enable companies to understand the relationship between social media marketing and customer engagement, as well as to contribute to the understanding of UGT from a social media marketing perspective.

METHODOLOGY

This study used social media data analytics to address research questions involving structured and unstructured data from social media. The whole process includes data acquisition and warehousing, data mining and cleansing, data aggregation and integration, data analysis and modeling, and data interpretation (Sivarajah, Kamal, Irani, & Weerakkody, 2017).

Both structured and unstructured data from Instagram were acquired and stored using the Artificial Intelligence-driven web data scraper ScrapeStorm. The dataset was then exported to Microsoft Excel for review and filtering. Next, data analysis was conducted using multiple software applications to test the proposed hypotheses. IBM’s SPSS software was then used for statistical analysis and to test for correlations between social media marketing variables and user engagement. SAS Visual Text Analytics was used to analyze textual data from post captions. SAS Visual Text Analytics is specifically designed to extract and organize huge volumes of textual data. The downloaded textual content was categorized as informative, entertaining, relational, or remunerative. Valuable insights could then be obtained through thorough data interpretation in response to research questions.

Table 1 shows that the data sources for this study were the Instagram accounts of four prominent Malaysian brands operating in various industries. A total of 9,270 Instagram posts were extracted from the four accounts for processing and analysis. Instagram content has three different formats: pictures and videos on the permanent feed (which can be deleted or archived by the user), pictures and videos presented as stories that are only visible for 24 hours, and IGTV – the standalone video application by Instagram, which has a similar format to the story but is permanent (unless deleted or archived by the user). For the purposes of this study, only content from the permanent feed were extracted because Instagram stories are not available beyond 24 hours after being posted; furthermore, there is currently a technical limitation to scraping IGTV content. Both structured and unstructured data were collected for analysis. Structured data describes numerical values, such as the number of likes, views, followers, and comments; unstructured data describes visual content, such as videos, images, and textual information (captions and comments).

Demographic data including age and gender were not collected. We also made sure that individual responses were not identifiable, and that the information collected are only be reported in an aggregated form.

For each IG post that was scraped, their corresponding visual and textual (captions) contents were extracted together with their engagement. The engagement rates were recorded. Based on the

<table>
<thead>
<tr>
<th>Brands</th>
<th>Industry</th>
<th>Instagram Account</th>
<th>No. of Followers</th>
<th>No. of Posts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naelofar</td>
<td>Muslim Fashion</td>
<td>@naelofar</td>
<td>675,000</td>
<td>4,037</td>
</tr>
<tr>
<td>D’Herbs</td>
<td>Herbal Supplement</td>
<td>@dherbholdingshq</td>
<td>447,000</td>
<td>715</td>
</tr>
<tr>
<td>Duck Cosmetics</td>
<td>Beauty Cosmetics</td>
<td>@duckcosmetics</td>
<td>155,000</td>
<td>2,455</td>
</tr>
<tr>
<td>myBurgerLab</td>
<td>Food and Beverages</td>
<td>@myburgerlab</td>
<td>48,000</td>
<td>2,063</td>
</tr>
</tbody>
</table>
individual engagement rate, only captions that ranked in the top 10% highest engagement rate were explored further using SAS Text Analytics. Using SAS’s NLP function, the textual content from Instagram captions were analyzed and themes were identified from trending terms and topics (based on their frequency in those captions). Once the themes were identified, they were grouped according to the four categories (See Table 2 for the definition of the categories and the classification guide used in this study). Based on the textual contents we can then examine the categories and their respective engagement rates.

By examining the impact of the social media marketing of prominent Malaysian brands on customer engagement, this study examines all three features of social media marketing: creator-related features, contextual features, and content features (Jaakonmäki et al., 2017). These features were the variables for this study. Given customer engagement is the key metric for company performance (Jaakonmäki et al., 2017; Paine, 2011), it was treated as the dependent variable in this research. Instagram allows users to interact with its platform by following, watching videos, liking, commenting, hashtagging, and tagging other users. The number of followers represents the total number of consumers that is interested in the brand and consumes brand-related content. The number of views represents the number of consumers that has viewed video content for at least 3 seconds. The numbers of likes and comments represent consumer–brand interaction; these types of engagement can be used to obtain feedback and, in some cases, can be perceived as endorsements. The numbers of hashtags and tagged posts represent user-generated content; that is, content created by customers themselves, which also contributes to increased brand awareness because the content appears on the consumer’s personal Instagram feed or story and is exposed to their followers—indirectly acting as a word-of-mouth endorsement of the brand.

Table 2. Categories and classification guide

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Informative</td>
<td>Social media content which provides the audience with useful and resourceful information regarding the brand and its offerings, for example, the product prices or the date of an upcoming product launch. Social media users feel gratitude and motivated when they can search and receive information about a brand in social media.</td>
<td>Captions related to product information (such as price, new release)</td>
</tr>
<tr>
<td>2. Entertaining</td>
<td>Social media content that is fun and fulfills users’ desire of escapism and hedonistic pleasure. This includes humorous contents, jokes, and online contests.</td>
<td>Captions that are humorous, contests</td>
</tr>
<tr>
<td>3. Relational</td>
<td>Social media content that is emotional and makes the audience feel relatable as it emphasizes on human interaction; for example, the daily reminders, takes on trending local issues, and tip sharing. Audiences engage with relational content because of their needs to feel the sense of belonging and connecting with the society.</td>
<td>Captions that emphasize human-to-human interaction, emotions</td>
</tr>
<tr>
<td>4. Remunerative</td>
<td>Social media content which offers rewards such as economic incentives to the audience. Examples include promotional material like giving out discounts and giveaways. This is as users often expect to gain some kind of reward in exchange for their social media engagement.</td>
<td>Promotional material (discounts, sales, etc.)</td>
</tr>
</tbody>
</table>
Customer Engagement Measurement

Customer engagement includes consumption (passive), contribution (moderate) and creation (active). Although some scholars only measure contribution (Yew et al., 2018), this study took a holistic approach, analyzing every customer engagement type using the following measurement techniques:

- Consumption was measured by the number of Instagram followers; the number of video views was omitted to standardize measurement across different types of content (Instagram does not record the number of views of image content).
- Contribution was measured by the customer engagement rate, which was calculated according to the formula used by industry experts such as Hootsuite, Iconosquare, and Scrunch (Rabo, 2019; Sehl, 2019):
  \[
  \text{Engagement Rate \%} = \left\{ \frac{\text{number of likes} + \text{number of comments}}{\text{Total followers}} \right\} \times 100
  \]
- Creation was measured by hashtag and tagged post numbers.

Creator-Related Features

Creator-related features of social media marketing were analyzed quantitatively; this includes the background, follower numbers, age, and gender of the founders of brands. Some of this information was extracted from the Internet, while Instagram accounts provided the number of followers of the brands, the numbers of brand-related hashtags, the amount of tagged content, the number of likes, and the number of comments (and associated average engagement rate); which were extracted using the ScrapeStorm web scraper. This information enabled the testing of H1.

Contextual Features

Contextual features of social media marketing were analyzed quantitatively: the average frequency of Instagram posts and the corresponding engagement rate which were extracted using ScrapeStorm, allowing testing of H2.

Content Features

Content features of social media marketing include post types and captions. Post type distinguishes visual content into videos, images featuring people, and images not featuring people. In this study, visual features were extracted using ScrapeStorm’s artificial intelligence function and then analyzed quantitatively to measure the number of likes and the number of comments (and the associated average engagement rate); SPSS was used for statistical analysis. This allowed H3 to be tested.

Textual content was categorized as informative, entertaining, relational, or remunerative. Textual features were extracted using ScrapeStorm and engagement rates were. The 10% textual content with the highest average customer engagement from each brand’s Instagram was explored and analyzed using SAS Text Analytics to determine the content strategy applied by the brand to generate such levels of customer engagement. Finally, the results were analyzed quantitatively, and H4 was tested.

FINDINGS

Results Overview

As explained, customer engagement was categorized as consumption, contribution, or creation. Table 3 shows that the number of followers represents consumption, the engagement rate represents contribution, and the number of hashtags and tagged posts represents creation. Table 2 shows that for consumption and creation, Naelofar showed the best results, followed by D’Herbs, Duck Cosmetics,
and then myBurgerLab. Interestingly, contribution was led by myBurgerLab, followed by Duck Cosmetics, Naelofar, and D’Herbs. Besides the global average engagement rate, there is no benchmark classifying any given number of followers, hashtags, or tagged posts as good or bad. This might be because many studies have only considered likes and comments as user engagement, ignoring that following, hashtagging, and tagging are also user engagement activities.

The latest statistics for average engagement rates for brands on Instagram, from 2019, showed figures around 0.47% (Penn, 2019) which we can consider as the benchmark. Compared to that number, the average engagement rate for myBurgerLab was higher than the benchmark, while Naelofar and Duck Cosmetics demonstrated average engagement rates which were quite similar to the benchmark. Only D’Herbs had an average engagement rate below the benchmark. However, it should be noted that this does not necessarily signal poor customer engagement as the average engagement rate only describes engagements in the contribution category. In other words, it does not represent customer engagement holistically; it could also imply that, for some brands, passive follower numbers are greater than numbers of followers with moderate engagement.

**Customer Engagement Based on Creator-Related Features**

Customer engagement based on creator-related features of the social media marketing of the selected brands is summarized in Table 4. The founder of Naelofar, Neelofa, is a well-known Muslim fashion icon and entrepreneur in Malaysia and is especially popular among Malays. She has appeared in mainstream media countless times. Her considerable public presence is evidenced by the number of followers of her personal Instagram (6.6 million at the time of the study). The results also showed that her Naelofar brand had the highest number of Instagram followers, compared to the other three

| Table 3. Overview of customer engagement |
|-------------------------------|----------------|-----------------|-----------------|-----------------|----------------|-----------------|
| **Brand**                  | **No. of Followers** | **Avg. Engagement Rate (%)** | **Median Engagement Rate (%)** | **No. of hashtags** | **No. of tagged posts** |
| Naelofar                   | 675k              | 1.41            | 1.10            | 212k            | 3201            |
| D’Herbs                    | 447k              | 0.07            | 0.03            | 168k            | 1468            |
| Duck Cosmetics             | 155k              | 2.44            | 1.73            | 62k             | 4500            |
| myBurgerLab                | 48k               | 5.41            | 4.86            | 27k             | 1999            |

| Table 4. Customer engagement based on creator-related features |
|-------------------|-------------------|---------------------|---------------------|-----------------|-----------------|
| **Brand**         | **Founder(s)**    | **Founder’s No. of Followers** | **Brand’s No. of Followers** | **Avg. Engagement Rate (%)** | **Median Engagement Rate (%)** | **No. of hashtags** | **No. of tagged posts** |
| Naelofar          | Neelofa           | 6.6M                | 675k               | 1.41            | 1.10            | 212k            | 3201            |
| D’Herbs           | Dato Alif Syukri  | 3.5M                | 447k               | 0.07            | 0.03            | 168k            | 1468            |
| Duck Cosmetics    | Datin Vivy Yusoff | 1.8M                | 155k               | 2.44            | 1.73            | 62k             | 4500            |
| myBurgerLab       | Ren Yi, Chang Ming, Wee Kiat | 0.002M                  | 48k                | 5.41            | 4.86            | 27k             | 1999            |
brands, indicating high levels of consumption-based customer engagement. The brand’s numbers of hashtags and tagged posts were also higher than the other brands. This implies that creation-based customer engagement was also substantial. In contrast, their contribution-based engagement rate was only 1.41%, behind myBurgerLab and Duck Cosmetics.

The founder of D’Herbs, Dato Aliff Syukri, is also an acclaimed entrepreneur and online celebrity popular among Malays. He has 3.5 million Instagram followers. D’Herbs had the second-highest numbers of followers and hashtags and tagged posts, indicating substantial consumption- and creation-based customer engagement. However, their average engagement rate was the most insubstantial, at only 0.07%, suggesting poor contribution-based customer engagement.

Duck Cosmetics was founded by Datin Vivy Yusoff, an entrepreneur and famous fashion blogger. She is admired by many women, especially urban Malays. Her personal Instagram had 1.8 million followers, while Duck Cosmetics had 155,000 followers, putting it behind Naelofar and D’Herbs. That means that consumption-based engagement was substantial but not as substantial as Naelofar or D’Herbs. Based on the number of hashtags and tagged posts, their creation-based engagement was also moderate. However, contribution-based engagement, at 2.44%, was stronger than that of Naelofar and D’Herbs but lower than myBurgerLab.

myBurgerLab was founded by Ren Yi, Cheng Ming, and Wee Kiat. There is not much public information about them—they are neither celebrities nor notable public figures. The total number of followers of Wee Kiat’s and Ming Cheah’s Instagram accounts (Ren Yi’s Instagram was not located), was approximately 2,000. However, despite having only 48,000 Instagram followers and the lowest numbers of hashtags and tagged posts, myBurgerLab’s average customer engagement rate was the highest (5.41%). This suggests that most of myBurgerLab’s relatively small number of followers were moderately engaged with myBurgerLab’s Instagram posts.

These results indicate that the background of a brand’s founder impacts a brand’s customer engagement on social media, confirming H1. This implies that the more famous the founders are, the more personal Instagram followers they have, and the greater their influence over their fans. Consequently, their brands enjoy more awareness due to higher levels of consumption- and creation-based customer engagement. The low levels of contribution-based engagement, indicated by average engagement rate, might not necessarily suggest poor social media performance; instead, this indicates a large group of followers who are passive social media users.

Customer Engagement Based on Contextual Features

The average engagement rate for each brand with the average daily post frequency, a contextual feature of social media marketing, indicating an inverse relationship between post frequency and engagement rates are compared in Table 5. D’Herbs demonstrated both the highest average number of daily posts and the lowest average engagement rate, while myBurgerLab had the lowest average number of daily posts and the highest average engagement rate. This was consistent with previous findings which show that Instagram accounts with the highest levels of engagement only posted 1–2 times each day (Rabo, 2019).

<table>
<thead>
<tr>
<th>Brand</th>
<th>Avg. Daily Post Frequency</th>
<th>Avg. Engagement Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naelofar</td>
<td>4</td>
<td>1.41</td>
</tr>
<tr>
<td>D’Herbs</td>
<td>5</td>
<td>0.07</td>
</tr>
<tr>
<td>Duck Cosmetics</td>
<td>3</td>
<td>2.44</td>
</tr>
<tr>
<td>myBurgerLab</td>
<td>2</td>
<td>5.41</td>
</tr>
</tbody>
</table>

Table 5. Customer engagement compared to the contextual feature of average daily post frequency
Table 6 shows the results of a Pearson correlation test conducted using SPSS. It indicates a negative correlation between post frequency and average engagement rate, confirming H2.

**Customer Engagement Based on Content Features**

Images with people constituted the largest share of Naelofar’s visual content, while images without people comprised most of the visual content for D’Herbs, Duck Cosmetics, and myBurgerLab (See Table 7).

Given the data distribution for engagement rate was skewed, the median engagement rate was emphasized over the average engagement rate. Video content generated the highest levels of engagement for Naelofar and D’Herbs. Duck Cosmetics and myBurgerLab got the most engagement from their images without people (see Table 8 for average and median engagement rates based on visual content type).

A Kruskal-Wallis test was run to determine the relationship between engagement rate and types of visual content and check whether there were significant differences between engagement rates for videos, images with people, and images without people. A Kruskal-Wallis test was chosen over a One-Way ANOVA test because the data were not normally distributed (based on the SPSS normality test) and did not meet the homogeneity variance assumption (based on the Levene’s test run on SPSS). Results from the Kruskal-Wallis test indicated that there was a significant difference in engagement rates based on different types of visual content (p-value= 0.000 < 0.05). The results, based on median values, also indicated that video demonstrated the highest engagement rate (0.4094), followed by images with people (0.3406) and images without people (0.3184), confirming H3.

Considering the 10% of content, which generated the most engagement (See Table 9). The best-performing visual content for Naelofar was images with people; for D’Herbs, it was videos; for Duck Cosmetics and myBurgerLab, it was images without people. Except for Naelofar, these results are

### Table 6. Statistical correlation between daily post frequency and average engagement rate

<table>
<thead>
<tr>
<th></th>
<th>Daily Post Frequency</th>
<th>Average Engagement Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daily Post Frequency</strong></td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td><strong>Average Engagement Rate (%)</strong></td>
<td>Pearson Correlation</td>
<td>-0.970*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).

### Table 7. Customer engagement based on the visual content proportions from all datasets

<table>
<thead>
<tr>
<th>Brand</th>
<th>Visual Content Proportion (%)</th>
<th>Avg. Engagement Rate (%)</th>
<th>Median Engagement Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Video</td>
<td>Image w/ People</td>
<td>Image w/o People</td>
</tr>
<tr>
<td>Naelofar</td>
<td>16</td>
<td>59.5</td>
<td>24.5</td>
</tr>
<tr>
<td>D’Herbs</td>
<td>23</td>
<td>15</td>
<td>62</td>
</tr>
<tr>
<td>Duck Cosmetics</td>
<td>10</td>
<td>28</td>
<td>62</td>
</tr>
<tr>
<td>myBurgerLab</td>
<td>6</td>
<td>23</td>
<td>71</td>
</tr>
</tbody>
</table>
consistent with the results presented in Table 8. For Naelofar, although Table 8 indicated that video had the highest engagement rate, their best-performing visual content comprised 80% images with people and only 15% video. If they were to produce more video content, their median engagement rate might be higher.

Meanwhile, Figure 2 shows that most of the 10% best-performing textual content was informative. For Naelofar and Duck Cosmetics, informative content was most substantial, followed by relational, entertainment, and remunerative content. For D’Herbs and myBurgerLab, informative content was most prominent, followed by relational, remunerative, and entertainment content. This suggests that informative content contributes to higher levels of customer engagement; thus, H4 has not been confirmed.

Hypotheses Summary

Based on the findings, H1, H2, and H3 have been accepted, and H4 has been rejected (see Table 10). The results indicated that a founder’s background does affect customer engagement with the brand on social media. The study also indicated that Instagram post frequency impacts customer engagement and that videos generate higher levels of customer engagement than images, either with or without people.

DISCUSSION

This study offers additional insights into the development of the UGT in the social media marketing context. When engaging with brands on social media, customers often seek informational content to satisfy their cognitive needs; this differs from engagement with unbranded social media accounts, such as the accounts of friends or entertainment purveyors (i.e., meme-based accounts), which are used to fulfill social and emotional needs. With its distinct focus on Malaysian SMEs and Malaysian consumers, this study makes a unique contribution to a growing body of literature on customer behavior on social media. However, this study differs from studies concentrating on numbers of likes and comments (for example, Bakhshi et al., 2014) by recognizing the importance of analyzing

<table>
<thead>
<tr>
<th>Brand</th>
<th>Avg. Engagement Rate (%)</th>
<th>Median Engagement Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Video</td>
<td>Image w/ People</td>
</tr>
<tr>
<td>Naelofar</td>
<td>1.47</td>
<td>1.66</td>
</tr>
<tr>
<td>D’Herbs</td>
<td>0.17</td>
<td>0.08</td>
</tr>
<tr>
<td>Duck Cosmetics</td>
<td>1.53</td>
<td>2.07</td>
</tr>
<tr>
<td>myBurgerLab</td>
<td>4.32</td>
<td>4.69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brand</th>
<th>Visual Content Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Video</td>
</tr>
<tr>
<td>Naelofar</td>
<td>15</td>
</tr>
<tr>
<td>D’Herbs</td>
<td>80</td>
</tr>
<tr>
<td>Duck Cosmetics</td>
<td>3</td>
</tr>
<tr>
<td>myBurgerLab</td>
<td>1</td>
</tr>
</tbody>
</table>
all three types of brand-related customer engagement, namely: consumption-based engagement (passive engagement), contribution-based engagement (moderate engagement), and creation-based engagement (active engagement).

This study identifies essential inputs for social media marketing applications of UGT. The findings indicate that consumers are more likely to engage with informative content than entertainment content. This might be because consumers follow brand accounts to learn about the products and services offered by the brand. In other words, their choice to become a follower on Instagram is motivated by the opportunity to learn more about the brand’s products; they might also want to be among the first to receive updates. According to UGT, this fulfills their cognitive need to increase their knowledge about the brand and its products. Consumers engaging with the social media accounts of friends or influencers might be more drawn to images featuring people and other emotion-based
content (Bakhshi et al., 2014; Dolan et al., 2016) because they look to such Instagram accounts for socialization and entertainment to meet their social integrative needs.

This study’s results suggest that creator-related, contextual, and content features of the social media marketing of prominent Malaysian brands do affect customer engagement. This study’s findings also emphasized how different features of social media marketing engender different levels of engagement from consumers, as did previous studies (Jaakonmäki et al., 2017; Liu et al., 2019; Muntinga et al., 2011).

The brand founders contributed to positive outcomes for their brand’s Instagram account due to both the size of their audience and the consequently abundant customer-generated content. These brand founders, who can be categorized as social media influencers, had the advantage of being able to use their personal Instagram to promote their brands. People perceive influencers as being trustworthy and are thus more likely to engage with the brands of famous people (Mutum et al., 2018). Researchers have also suggested that customers are easily swayed by social media influencers when the influencers are relatable (Nouri, 2018); this has been corroborated by this study. For example, Neelofa and Datin Vivy, who are known as fashion influencers, encouraged large numbers of their personal Instagram followers to also follow their brands; given their follows are likely fashion aficionados, they can relate to the influencers and their brands (Nouri, 2018), especially in niche markets.

Although following a brand’s Instagram is considered passive engagement, this does not mean that the significance is negligible. Instagram brand followers are important to overall social media marketing strategy because they are more receptive to brand-based communication than other users (Hellberg, 2015). Companies have invested in influencers for their social media marketing because influencers are critical for a stronger brand presence and greater outreach, as well as having considerable control of the pre- and post-purchase elements of the customer journey (Hughes et al. 2019; Erz, Marder, & Osadchaya, 2018; Schivinski et al., 2016).

High numbers of hashtags and tagged posts are also beneficial because they advocate the brand in the eyes of others and can often be linked to purchase behaviors (Dolan et al., 2016; Malthouse et al., 2016), as well as representing the brand’s active and supportive community and the gratitude of consumers (Simon & Tossan, 2018). However, although it was assumed that having popular founders contributed to higher rates of consumer engagement, this study’s findings suggest there is no guarantee. This might mean that the users do not necessarily like the products being sold by the brand but follow it to show support for the founder or because they enjoy occasionally seeing the famous founder in the content (Hellberg, 2015).

Knowing how much content to post in a day is also a challenge for brands, especially given Instagram’s latest algorithm is not chronological. This study finds that Instagram post frequency has an inverse relationship with the customer engagement rate with two daily posts achieving better results than three daily posts. It has been shown that brands posting too much in a day can be considered spam-like; that is, posting more than once a day increases overall brand reach increases but decreases the reach of each post (Hellberg, 2015, Heath, 2019). However, if a brand does not create any posts, customer interest in the brand is likely to wane. The findings indicate that it is crucial for brands to recognize that quality is more important than quantity. More importantly, these findings prove that there is a relationship between Instagram post frequency and customer engagement.

This research also demonstrates the impact of both visual and textual content on contribution-based customer engagement. The results of a statistical analysis conducted using 100 samples of each visual content type (video, images with people, images without people) from each brand indicated that video contributed to the highest rates of customer engagement, followed by images with people and images without people. Social media users might prefer videos over images because video more vividly stimulates the senses of sight and hearing (De Vries et al., 2012). Additionally, video might be better than static images for clearly and directly delivering messages to audiences because it tells stories better, and the information is more easily understood, explaining why majority of Internet marketers uploaded video content.
Moreover, images containing people achieve higher engagement rates than images without people, regardless of the number of people featured. This study’s findings are perhaps not surprising: people reportedly tend to like images with faces because of an unconscious behavioral bias pulling people towards familiar subjects (Bakhshi et al., 2014) or simply because images with people can convey emotion (Jaakonmäki et al., 2017).

However, when considering each individual brand, only D’Herbs and Naelofar achieved the highest engagement rates from video content, and, furthermore, Duck Cosmetics and myBurgerLab achieved their highest engagement rates from images without people. In the later’s case, their followers are more interested in the brand’s products (Hellberg, 2015). This suggests other factors, such as industry-specific target markets affecting the relationship between visual content and customer engagement. These contradictory findings suggest brands need to carefully consider their target audience and the message they want to deliver before deciding on their social media content.

Analysis of textual content from Instagram post captions revealed that Instagram followers of these Malaysian brands preferred informative content over relational, entertainment, or remunerative content in contradiction to previous studies which showed that social media customers prefer entertaining and relational content (Dolan et al., 2016; Liu et al., 2019). An explanation might be that, as with preferences for images without people, customers who follow a brand’s Instagram account are more interested in product information. However, it should be noted that although informative content proved the biggest contributor to high engagement rates, the best performing content also included relational content, entertaining content, and remunerative content.

Implications for Practice

This research has several significant implications for practice. First, it demonstrates how an organization can leverage social media analytics to gather, store, and analyze structured and unstructured social media data, how artificial intelligence and natural language processing can improve the analytic process, and how the data can generate useful insights which can further improve social media marketing strategies. Second, it identifies how different features of social media marketing affect different types of customer engagement. Thus, the findings of this study can serve as guides for brand founders and marketing managers towards effective social media communication.

The findings should help managers maximize resource-use efficiency and organize their content strategies and content management. For example, where the marketing objective is to achieve broad brand visibility, companies should leverage their founder’s background, if the founder is an influencer. If this is not the case, companies should consider hiring or sponsoring social media influencers to promote the brand and the products. Nonetheless, organizations should be cautious about engaging with influencers. Although the current study implies that Malaysians respond positively to influencers, there are still concerns regarding the strategy’s effectiveness and possibilities of the strategy backfiring. Moreover, where the marketing objective is to increase interactions with customers, the findings indicate that companies should post more content to generate higher engagement rates. Additionally, as video content and informative textual content produce the highest engagement rates, companies should invest in those types of content.

CONCLUSION

Recognizing the benefits of customer engagement on social media, companies have incorporated social media into their marketing strategies. However, many companies are still uncertain which social media content are most likely to positively influence customer behavior. Although previous research has investigated factors that can influence customer engagement, studies focusing on Instagram remain limited despite its popularity among the youth. Additionally, past research on Instagram has focused on contribution-based customer engagement, namely, likes and comments and studies taking a holistic view of customer engagement remain scarce, especially in the Malaysian context.
This research examined the impact of the social media marketing of prominent Malaysian brands on customer engagement. Social media analytics were used for the possibility of efficiently capturing and analyzing structured and unstructured data from social media. Different social media marketing features were shown to affect customer engagement differently. Creator-related features significantly impacted consumption- and creation-based customer engagement. This research also demonstrated that the background of a brand’s founder affects the brand’s follower numbers and the amount of consumer-generated content. Brands with founders who are famous in Malaysia had more followers and more consumer-generated content, supporting the notion that social media influencers are important in a social media marketing strategy. Meanwhile, contextual features affected contribution-based customer engagement: post frequency had an inverse relationship with engagement rates. Content features also impacted contribution-based customer engagement: the study found that the visual content generating the highest engagement rates was video content, while informative captions constituted the largest proportion of the textual content that generated high engagement rates. However, the findings also suggested this to be brand- or industry-dependent. Some brands generated the highest engagement rates from images without people, which could be said to be product-centric images. According to UGT, customers follow a brand’s social media to fulfill desires related to the brand’s products. A product being best represented by images without people might explain why images without people generate higher engagement rates than images with people or videos for some brands.

This study reveals that Malaysian social media users prefer brands connected to famous people and prefer video content over image-based content and informative textual content over other types of textual content. Malaysian SMEs should develop their social media marketing strategy accordingly. For instance, consider a restaurant that wants to encourage social media interaction: instead of wasting money on influencers posing in their restaurant, they can post videos of their food. Posting food images without the influencers would sufficiently engage customers. Another example is a company wanting to generate rapid brand awareness in the case that the brand’s founder is a celebrity; such brands should leverage that celebrity to save money on hiring external influencers. Ultimately, to meet marketing goals, companies must consider each social media marketing feature individually as they develop their strategy.

**LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH**

Certain limitations of this study necessitate future research. First, the current study simplifies the category of visual content to videos, images with people, and images without people. Additionally, the ScrapeStorm starter version does not differentiate between different types of video content (e.g., videos with people, videos with text only, videos with products only, videos with animals). For future research, further categorization of the visual content is recommended. Although this requires special coding, it will allow additional insights. Second, the study did not consider the aesthetic aspects of visual content. Future studies should explore links between consumer engagement with visual content and aesthetic aspects of the content. Furthermore, future research could also evaluate consumer sentiment using comments; this might provide a deeper understanding of consumer behaviors on social media. Finally, the study only focuses on data from Instagram. Studies by Klassen et al. (2018) and Voorveld et al. (2018) indicated that different social media platforms serve different purposes for different audiences and, thus, affect consumer engagement differently. Therefore, future research should consider comparing consumer engagement across different social media channels. This study also focuses only on the Malaysian context and does not differentiate between different generations. Future studies should also compare between different cultures, generations, and countries.
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