

Instagram & Engagement: an Observational Study

Samar Issa* and Ada Isabel Andrade Centeno

Associate Professor of Business Administration, Saint Peter's University, Jersey City, NJ 07306, USA

*Corresponding author

Samar Issa, Associate Professor of Business Administration, Saint Peter's University, Jersey City, NJ 07306, USA.

Received: April 01, 2026; Accepted: April 10, 2026; Published: April 20, 2026

ABSTRACT

This observational study utilizes the skincare and beauty brand Glossier's Instagram account to analyze engagement trends to identify strategies firms can implement to have a more successful content strategy on Instagram. Over a six-month period, data from posts were collected and organized on Excel and later compared to scales based on the @glossier's account total number of followers to understand the reach and engagement. The data showed that carousel posts were the most engaging post format and post content involving giveaways and announcements outperformed other types of contents in terms of likes and comments. The data also showed a lack of significant engagement between influencer posts and any major improvement in engagement, likely due to a growing appreciation for authenticity. Sundays and Fridays were found to have the highest engagement rates across the week in both likes and comments. The key findings suggest that firms should prioritize carousel formats when posting, create an optimized posting schedule that emphasizes audience alignment and fosters meaningful connections with its followers.

Keywords: Instagram engagement, content strategy, influencer marketing, authenticity, beauty & skincare marketing, impressions & reach, social media algorithms, user-generated content.

Introduction

In the year 2024, technology has become a necessary and crucial aspect of everyday life. Serving as a facilitator of the essential functions of individuals, businesses, and governments; technology has earned its place in modern society. So much so, that it has built a virtual sphere where interweb connectivity and virtual spaces hold as much consequence as the material world. In this virtual space is where social networking sites such Instagram, have been able to not only cater to personal connections online but also convert users into consumers that can respond to a personable and relatable brand. What sets Instagram apart is not any tangible transaction, but rather the manner in which the platform can be utilized effectively to anthropomorphize a brand seamlessly and therefore create engagement that can turn a like into loyalty. The research conducted will be able to assist firms as they devise their Instagram content strategy to be able to be more effective.

The research paper will be divided into various sections. In the first section, the literature review delves into the increasing

dependence of social media among consumers and their evolving shopping behavior. The following section concerns itself with the methodology of the research conducted from the data collection and the methods of analysis. Section 4 discusses the results and then section 5 provides the practical implications of the research for firms. The paper concludes in section 6 where also the limitations of the study are discussed.

Literature Review

With over 200 million business accounts present on the Instagram platform there has been a demand for concrete evidence on what makes not only a post but the brand successful overall (Instagram, n.d). There is a pressure to create content that is easily digestible and memorable since "70% of shoppers [look] to Instagram for their next purchase" (Instagram, n.d), and this is a priority that corporations and small businesses must tackle.

With an open market, consumers have not only more options on how to spend on, but also more information to process as the shopping experience increasingly becomes more mobile. Online shopping in the year 2024 alone is expected to account for 20.1% of all retail purchases globally, which is a significant increase from only ten years prior [1]. But not only is there a difference on where transactions are being made, there is now a new way in which consumers approach shopping. Research has found that

there has been an emergence of a new type of shopping where “consumers seamlessly merge online and in-store shopping to make informed in-store purchases and vice versa” [2]. The need for a content strategy that businesses face becomes even more apparent with the new findings that “61% of in-store shopping trips begin online” [2]. With consumers relying on the web more than ever to make more informed shopping decisions and line between, a consumer-oriented and tailor-made online presence on social media channels is more important than ever.

But what factors make an online space resonate so well to be able to get a user to become a loyal consumer? Is it perhaps the amount of text underneath a post or the use of hashtags? Or could it be the presence of micro-influencers or giveaways? Some would say that a successful post depends on the structure used by the business account, choosing between a stagnant post, a reel, or a carousel. These are all factors that have been examined by previous researchers in recent years. Research conducted by a collaboration between Mexican and Spanish universities found that when analyzing various narrative elements that contribute to substantive organic interaction Instagram reels were very unpopular when used by business accounts on the platform. This study found that while user generated accounts “reach almost five times higher than any other type of posts... in corporate accounts, there are the types of content with the least interactions” [3]. Reels are short form video content that can be used to post on the Instagram platform and was a direct response to the popularity of the short form video content platform TikTok, “likely ... to replicate the endless scroll of TikTok’s addictive For Your page, which is personalized to each user and has been a huge key to TikTok’s success” [4]. Remaining on platforms longer has been linked to more likely purchasing behavior, necessary in an increasingly online-centered shopping space.

Therefore, if keeping possible consumers engaged for greater periods of time with business generated content is the goal some would put forward the idea that giveaways would be a great incentive for users to interact with business generated content. Yet the same study above found that “contests (giveaways) on official accounts generated fewer likes” and “significantly reduces interactions” [3]. This finding perhaps astonishes some, who would believe that a giveaway might encourage engagement, but in fact in can be the opposite. Giveaways tend to attract users interested solely in winning a prize, often leading to short-term engagement. These users are less likely to form long-term connections with the brand, as their interests do not align with the business’ content, making sustained interaction unlikely.

If contest prizes are not a sustainable method for increased engagement, then what approaches can be taken to connect to the consumer and be able to influence their purchasing behavior? In a study published in the Spanish Journal of Marketing, the researchers found that “the perceived enjoyment and perceived originality of Instagram posts... have a positive influence on affective CE (consumer engagement)” which then affects the consumer’s behavior and willingness to follow the advice presented by the business on Instagram and the intention to revisit [5]. This research was conducted on women pertaining to a restaurant and its content creation, so there are limitations as the research was conducted solely on a group of over 300 women. But in the United States alone, 55.4% of Instagram users

are women as of July 2024, and since the U.S is Instagram’s “second-largest worldwide audience” second to India, it is fair assume that Ballester’s research remains relevant to a substantial portion of Instagram’s users [6].

Yet, is originality and enjoyment the only driving factors for sustainable engagement and eventually purchasing behavior? In the 2021 study published in the South African Journal of Information Management, the researchers sought to investigate how the consumption of luxury goods is affected by Instagram and therefore how it correlated to the intention to purchase luxury goods. The study, after collecting survey data, found that the influential factor to purchase luxury goods was not any electronic word of mouth but rather the “usage intensity effects conspicuous consumptive behavior” where “users spend more time on Instagram in an effort to stay up to date with their desired social status” and where they can “view, engage and idealize conspicuous content” [7]. The longer a user is on the platform, the more personalized the content shown to them becomes, this is a result of the algorithm that curates the feed of users according to their interests. A feed that is tailor-made for the user encourages more time on the platform and the content being shown to them even more niche as time passes, and the cycle repeats. The underlying ideas of this research can be applied even to consumers and users who are not even seeking to buy luxury goods but instead their daily purchases.

Keeping this in mind, what are the driving forces that keep users on the platforms? A business can post as much as they’d like but that is not a guarantee its posts will show up on anyone’s feed, that is up to the algorithms. Instagram employs various algorithms to show users that they want and when they want it. For each part of the Instagram platform there exists an algorithm “tailored to how people use it” [8]. This means that the feed, explore page, reels and stories all have their own system that ranks content based on the individual user experience. The algorithm uses signals to predict how likely it is a user will interact with a certain piece of content, this is done by the algorithm analyzing signals that contain the information about the post, information on the post origin, the user’s activity and the history the user has interacting with that account. This is how feeds and stories are ranked and curated by the platform, and the explore feed follows a similar format. These algorithms play an important role in deciding what content a user sees and interacts with, so creating content that resonates with users is key as the algorithms use that engagement to prioritize similar posts in the user’s feed. This content then can be shared with other likeminded users, expanding reach [9].

Taking account of the previous research conducted, to understand the factors that contribute to engagement which can then later lead purchasing intention, it is necessary to isolate the various variables that pertain to an Instagram post. By isolating the different variables, there can be greater clarity on what constitutes a successful Instagram post aside from a like and comment metric and be able to provide clear recommendations that businesses can use to create more engaging content that will resonate with potential consumers.

Methodology

The research for this study was collected using the Instagram platform. The account chosen for this observational study was

the skincare and makeup brand Glossier. At the time of the data collection @glossier had 3,109,557 followers and this was the fixed number used for any calculations requiring a follower count. Six months' worth of posts from the @glossier account were collected from September 1st, 2023 to March 1st 2024, for a total of 203 posts that were analyzed. It is important to note that there were some instances where multiple posts were made in a single day, usually during a product launch, and these posts are included in the 203 posts.

The reason why Glossier beauty brand was chosen among so many others is the consistency of their posting schedule, posting a minimum of once a day and the established audience who have undisputed loyalty to the brand. Glossier has been able to cultivate brand identity by focusing on the consumer's raw beauty and encourages authenticity through their products and marketing. The products are meant to highlight the features of the user and takes a minimalist approach to beauty, where looking good is effortless and accessible. This has resonated with their consumers who have eagerly responded to this minimalist approach to beauty.

Data Collection

Each of the 203 posts data was noted and transferred to an Excel sheet and organized. The data collected from each post is as follows:

- Date of post
- Type of post: this is to indicate if it is a video/reel, stagnant or default post, or a carousel post. A stagnant post is an Instagram post that does not contain any slides nor it is a video, it is a traditional post. A carousel post is a post that contains slides within them, each slide can be a traditional post or contain a video within. In short, a carousel post is

when more than one traditional post or video is included in a single Instagram publication.

- If and when a post is a carousel post, this is to indicate the number of slides
- Whether or not the post is original @glossier content or if it features other creators
- The type of post: This is to differentiate between the content of a post such as an announcement post, a promotional post, or a giveaway post.
- Whether or not the post posed a question meant to prompt the viewers of the post to respond
- The number of likes the post has
- The number of comments the post has
- The general sentiment of the post: Negative, Neutral or Positive
- The number of words in the text section of the post
- The number of hashtags included in the post, if any
- Whether or not there were any humans visually present in the posts
- If any humans were present, whether they were female or male presenting
- Whether any people of color were present in the post
- Whether a product was visually present in the post

Scaling

After the data was collected, the amount of likes and comments were compared to scales in proportion to the total following of the @glossier account. These scales were created to have a consistent method of comparison between the performance of the posts and the potential engagement they could be achieving. The post would then be marked with the corresponding level. To better understand, the scales for likes and comments are placed below.

Table 1: Scales for Likes

Engagement Level	Percentage of Followers	Range of Likes	Interpretation
Low Engagement	0 - 1%	0 - 31,095 likes	Minimal engagement. Content may not be resonating well.
Average Engagement	1 - 3%	31,096 - 93,287 likes	Decent engagement. Room for improvement in content appeal.
Good Engagement	3 - 5%	93,288 - 155,477 likes	Good engagement. Content resonates strongly with the audience.
High Engagement	5 - 10%	155,478 - 310,955 likes	High engagement. Content has a strong connection with followers.
Exceptional Engagement	10%+	310,956+ likes	Exceptional engagement. Highly impactful content.

Source: Authors' compilation and calculation

Table 2: Scales for Comments

Engagement Level	Percentage of Followers	Range of Comments	Interpretation
Low Engagement	0 - 0.2%	0 - 6,219 comments	Minimal comment engagement. Content might not be sparking discussions.
Average Engagement	0.2 - 0.5%	6,220 - 15,547 comments	Average comment engagement. Some discussion but potential for more interaction.
Good Engagement	0.5 - 1%	15,548 - 31,095 comments	Good comment engagement. Content is stimulating conversations.

High Engagement	1 - 2%	31,096 - 62,191 comments	High comment engagement. Content is generating significant discussions.
Exceptional Engagement	2%+	62,192+ comments	Exceptional comment engagement. Content is highly engaging and sparking extensive conversations.

Source: Authors' compilation and calculation

Calculations & Related Scaling

With the data collected, the engagement rate per post can be calculated. Through the following formula

$$\left(\frac{TL+TC}{TF}\right) \times 100 \text{ (Total Likes + Total Comments } \div \text{ Total Followers)} \tag{1}$$

Where TL denotes Total Likes, TC denotes Total Comments, and TF denotes Total Followers.

The engagement rate derived from this would then be compared to its own scale to then compare it in proportion to the total amount of followers of @glossier and assigned the appropriated level.

The scale for engagement rate is seen below.

Table 3: Engagement Rate Scales

Engagement Level	Engagement Rate	Interpretation
Low Engagement	0 - 0.5%	Minimal engagement. Content may not be resonating well or is less visible.
Average Engagement	0.5 - 1%	Average engagement. Content is engaging but has room for improvement.
Good Engagement	1 - 2%	Good engagement. Content resonates strongly with the audience.
High Engagement	2 - 5%	High engagement. Content is highly engaging and well-received by the audience.
Exceptional Engagement	5%+	Exceptional engagement. Content is extremely engaging, often surpassing typical interaction levels.

Source: Authors' compilation and calculation

Then the estimated reach would be calculated by finding the estimated impressions per post using the following formula:

$$ER = \text{Like Impressions} + \text{Comment Impressions} \tag{2}$$

Where ER denotes the estimated impressions.

The impressions are calculated by multiplying by 10 the number of likes and for the multiplying by 20 the number of comments. When added together, one can estimate the reach of a post to the audience.

The specific scales for calculating estimated reach, multiplying likes by 10 and comments by 20, are based on the premise that comments generally represent a deeper level of engagement than likes, reflecting a higher emotional investment from the audience. This weighting aligns with industry norms that recognize comments as a stronger driver of content visibility due to social media algorithms prioritizing posts with higher engagement.

This was then compared to a scale as well and assigned the corresponding level, please find the scale below.

Table 4: Engagement Rate Scales

Engagement Level	Impressions	Estimated Reach	Interpretation
Low Reach	0 - 100,000 impressions	0 - 66,667 accounts	Minimal reach. Content is seen by a small portion of the audience.
Average Reach	100,001 - 300,000 impressions	66,668 - 200,000 accounts	Average reach. Content reaches a moderate portion of the audience.
Good Reach	300,001 - 600,000 impressions	200,001 - 400,000 accounts	Good reach. Content is seen by a significant portion of the audience.

High Reach	600,001 - 1,200,000 impressions	400,001 - 800,000 accounts	High reach. Content is seen by a large portion of the audience.
Exceptional Reach	1,200,001+ impressions	800,001+ accounts	Exceptional reach. Content is seen by a very large portion of the audience, often exceeding the core follower base.

Source: Authors' compilation and calculation

Analytical Framework

After all the data was collected and appropriately scaled, the best performing posts were transported to a different excel sheet to be analyzed more in-depth. What determined a best-performing post was if the post, in the overall engagement scale had been assigned as "good" or "high" engagement, but two "average" posts in the engagement scale were included in this set due to exceptional comment performance. No post in the data set achieved "exceptional" engagement in engagement scale.

The data set was analyzed using summary statistics to identify trends among the data set and pivot tables were used to organize data to a more digestible format.

General Observations

Posting Format

Though some posts were removed from the general data set for further analysis, there were still meaningful insights from the general data set. The most popular post format was the carousel slide, closely followed by the video format. As seen below in Figure 1.

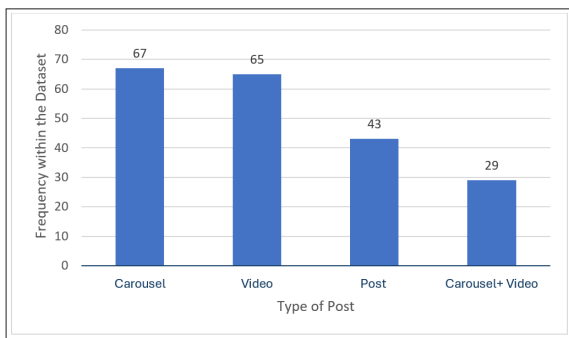


Figure 1: Types of Posts Within the Dataset

Here the x-axis is demonstrating the different types of posts within the dataset and the y-axis shows the frequency these posts appeared within the dataset. Yet this does not tell us much about the way that consumers are engaging with the content, as the type of content being posted is at the discretion of the @glossier account. So, it is better to present the data with the overlay of the actual performance based on post type. As seen below

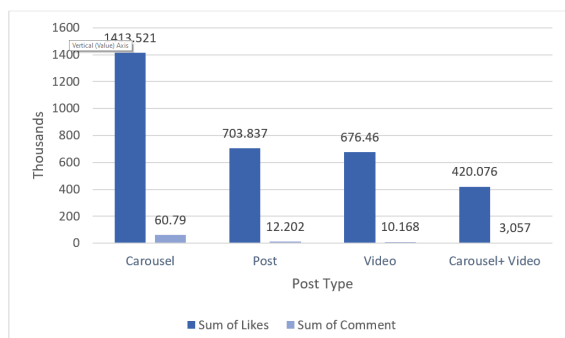


Figure 2: Likes & Comments By Post Type

Here the x-axis demonstrates the array of different post, and the y-axis shows the sum of likes and comments in thousands. It is evident that the carousel format was the most engaging simply by the numbers alone in both comments and likes. Followed by stagnant posts in both likes and comments. Something notable is that the category that of carousels + slides performed the least well compared to the other formats. Which is contrary to what one would think, since the carousel and the video formats separately are among the most engaging formats of posts as shown by the data.

Post Content

From the data collected, the content of the posts mainly contained announcements and promotions, but the content that performed the best with the audience was best determined by referring to the 30 best performing posts. In this specific data set, the announcement posts had the most user interaction followed by giveaways and N/A posts. N/A posts were posts made the @glossier account that were not an announcement, promotion of product or giveaway. These posts were few in the dataset compared to the rest but were substantive in engagement. The reason is that in these posts the @glossier account was giving well-wishes for the holiday season or simply posting aesthetic images for the feed, not necessarily pushing a product but rather a lifestyle. Please see below Figure 3 to better understand the engagement per post content.

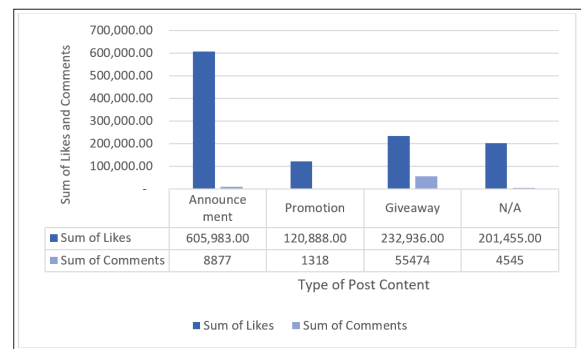


Figure 3: Likes and Comments by Type of Content

Here the x-axis is the content type of post, and the y-axis represents the sum of likes and comments in the thousands for each type of content.

Word Count

The general data set had approximately 41 words per post with the median word count being 34. The data set with the best performing posts had 56.7 average words per post and a median of 47.5. The best performing post were considerably wordier than the posts of the general dataset but is likely because there are 6 giveaway posts included in this set, and these posts tend to be wordier as they include instructions for the giveaway.

Featuring and Human Presence

From the best performing posts, only 13.3% featured another creator, but there was no significant differences in terms of likes and comments in comparison to the other posts without other creators. This suggests that, for the Glossier audience, the inclusion of external creators does not necessarily increase engagement. It may indicate that the brand's followers are more drawn to content that centers on the brand itself rather than collaborations or endorsements. This is a valuable insight for Glossier's content strategy, as it suggests that allocating resources toward collaborations with other creators might not yield a significant boost in engagement.

Additionally, 40% of posts had humans present and 66% of these posts included female presenting figures. This is consistent with Glossier's target audience, predominantly women interested in beauty and skincare, who likely feel more connected to content that resonates with their identity. Including female-presenting figures in a substantial portion of the posts may reinforce Glossier's brand image of being inclusive and relatable to its core demographic. For a brand primarily targeting women, this strategy seems effective in creating a familiar, inviting brand presence without needing external influencer associations.

Reach

The three posts with the highest estimated reach included two giveaways and one announcement post but all three with the carousel format. This is consistent with the overall data trends, as the carousel format proved to be the most effective in generating engagement. Specifically, 70% of the best-performing posts used this format, suggesting that audiences engage more with multi-slide content where they can swipe through multiple images or videos. Carousel posts, with an average slide count of 3.6, provide more opportunities to capture viewer attention through varied visuals, which can encourage deeper interaction and longer viewing times. Keeping people on the platform is the overall goal for social media platforms and for the businesses that run their accounts, keeping their audience engaged for as long as possible is the goal. With prolonged exposure to a business account, it is possible to relay the overall brand message. Slides are very useful to help accounts relay a message and maintain engagement for longer periods of time. Announcements, giveaways and sales would benefit the most from using the slide format, as they lend themselves to higher levels of engagement, which in turn the algorithm will pick up and show to more people, ultimately expanding the post's reach.

Timing and Frequency

Out of all the best performing posts, only 2 were posted on the same day and were both announcements made in carousel format about an upcoming product release. The content and engagement performance in both posts were similar as it was a highly anticipated product release, but since this is the only instance there seems to be little correlation between frequency of posts and engagement.

Since the dates of the post were collected, the data from the best performing posts were organized to show the sum of likes and comments based on the day of the week as seen below in Figure 4.

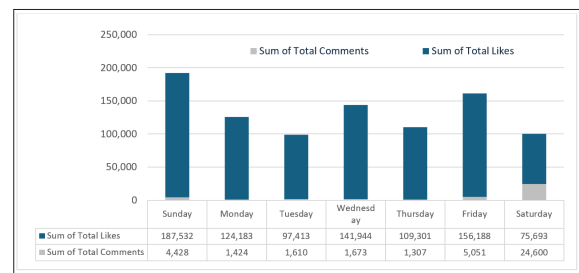


Figure 4: Daily Comment and Like Engagement

Here it is evident that the most engaging days of the week are Sunday, Friday and Wednesday respectively, in terms of likes. However, in terms of comments, we see that Saturdays, Fridays and Sunday were the most engaging days. Saturday here is a standout since it only features significantly in comments and not likes, despite the other days of the weekend having both high engagement in comments and likes. This might be due to the content presenting more space to engage in a discussion combined with the increased leisure time. Some explications for the overall higher engagement during the weekend overall, is the greater amount of leisure time in the demographic that @Glossier targets. Young women, from the teen years to early 30s seem to be the target age demographic, and there are considerable time constraints for this age range. Glossier is actively targeting young women who most likely have school or University commitments which takes up much of their week, or are in the early-career stage of their life, where their time is also occupied by their jobs. So, it is most likely that this demographic has more time to engage with a brand during the weekend where they have more time to devote and possibly more resources, as it is the end of the work week.

Possible Implications

This research offers valuable insights for firms to apply in their Instagram content strategies.

First, giveaways in another research study has shown to not be beneficial for the firm in the long run as seen in the 2023 study conducted by Barquero Cabrero et al. (2023) in the literature review section. Yet in this study provides a different facet, where giveaways can be beneficial in terms of engagement and longevity if the firm has a consistent and loyal relationship with their consumers. Especially, since not a single giveaway post included any hashtags, so the reach for these posts had to reasonably be contained to those who have interest in the brand.

Though announcements and giveaways consistently performed well in terms of engagement "N/A" posts that feature non promotional, or product related content were very engaging and had positive feedback. These posts include well wishes for the holidays and new year and feed enhancement posts simply for aesthetics. This type of content can resonate with consumers as the brand becomes more personable and creates a relatable narrative where the brand extends itself past a product and blossoms to a lifestyle.

The data also showcases that lengthier posts were more engaging, therefore posts with three to five lines of text can be more beneficial than simply one line of text and emojis. The reason is that this provides more space for the user to look at the post and increases the likelihood for more active engagement such as comments.

The use of hashtags is something of note for this research. In all six months of the data collected, not once did @glossier use a hashtag. This makes it possible for brands, should they have a loyal user base, to post without having to try to cast a wide net and instead have organic interest to their point. This is good to keep in mind since the utilization of influencers has been very popular online in recent years, but @glossier has proven in the general data set to be very active in including influencers in their posts. However, in actual performance metrics, these posts that have influencers did not have much substance. In fact, at least for the @glossier account, the using of the influencers is a substitute for a hashtag and that is their method of “casting a wide net” with minimal success. So instead of this, focusing on brand content would be more engaging than influencer-driven content. Authenticity is valued across the Instagram platform and online in general, so focusing on the brand would yield best result.

Based on the findings of this research paper, there are several general implications for brands looking to optimize their Instagram strategies for better engagement. First, brands should consider timing their posts to maximize visibility and interaction. The data indicates that engagement levels are highest on Sundays and Fridays, with significant activity in likes and comments on these days. Another recommendation is to optimize the length of the post based on observed engagement trends. The data suggests that posts with longer captions tend to perform better, as they offer more space to convey information, tell a story, or prompt followers to engage. Additionally, brands should use with the carousel format, especially for posts involving announcements or interactive content. Finally, brands could benefit from incorporating authentic, relatable content featuring human figures, particularly those that reflect the target demographic.

Conclusion

This research provides applicable strategies that brands can utilize in their Instagram content strategy. Combining authentic and relatable content with engaging post formats can allow for valuable engagement and visibility. The study found that carousel posts were across the board the most engaging post formats, and that posting on the weekend when the user base has more allotted leisure time leads to increased levels of visibility and reach. Additionally, collaborations with influencers did not seem to have a significant impact on engagement, just like the use of hashtags, who cast a wide net with little results to show for it. However, giveaways were found to be engaging when there is an already engaged userbase like the one @glossier effectively retains. Yet overall, authenticity and a consistent brand identity is an undeniable force that propels engagement, and using some of the strategies highlighted in this study can help foster growth and higher levels of engagement when applied appropriately.

This study has some limitations. It relies largely on observance on the engagement of consumers for a set range of time. The reason why the collection date was September 2023 to March

2024 was to ensure that there were few variables after the data was collected. This is to mean that there was less probability of these posts still appearing on the feeds of users months later, where users could like and comment on these posts, therefore being different from the data collected. Yet this probability cannot be fully ruled out, and to that extent the research is limited because there is no way to lock those posts in time, anyone with enough time on their hands and motive could go through the posts in the range collected and alter the engagement.

Another limitation is that this study relies solely on data collected from the Instagram platform, which means that the findings are specific to Instagram’s user base and algorithmic structures. Engagement patterns may differ significantly across other social media platforms, such as Twitter or TikTok, where user behavior, content formats, and algorithms vary.

Furthermore, the study does not account for external factors that could influence engagement, such as concurrent marketing campaigns, changes in the competitive landscape, or shifts in Glossier's brand positioning that might impact user sentiment and engagement. Since these variables were outside the scope of this study, they could have created engagement fluctuations that were not accounted for in the analysis.

References

1. Snyder K. E-commerce statistics: The future of online shopping in 2024. *Forbes*. Retrieved. 2023.
2. PR Newswire. Digital shopping trends: 66% of shoppers migrate from in-store to online purchases, according to 1WorldSync data. *PR Newswire*. Retrieved. 2023.
3. Barquero Cabrero JD, Castillo-Abdul B, Talamás-Carvajal JA, Romero-Rodríguez LM. Owned media, influencer marketing, and unofficial brand ambassadors: Differences between narratives, types of prescribers, and effects on interactions on instagram. *Humanities & Social Sciences Communications*. 2023. 10: 301.
4. Romano A. Instagram Reels wants to be the new TikTok. It won't be. *Vox*. 2020.
5. Ballester E, Ruiz C, Rubio N. Engaging consumers through firm-generated content on Instagram. *Spanish Journal of Marketing – ESIC*. 2021. 25: 355-373.
6. Statista. Distribution of Instagram users in the United States, by gender.
7. Madzunya N, Viljoen K, Cilliers L. The effect of Instagram conspicuous consumptive behavior on the intention to purchase luxury Goods: A developing country’s perspective. *South African Journal of Information Management*. 2021. 23.
8. Mosseri A. Shedding lighter on how Instagram works. *Instagram*. 2021.
9. Instagram. Getting started with Instagram for business. *Instagram*. 2024.