FACEBOOK ENGAGEMENT ANALYSIS REPORT

* Prepared by Sreema K R

# **Case Study**

Optimizing Social Media Engagement Through Posting Time Analysis

# **Overview and Objective**

Timing has a big impact on content performance in the fast-paced world of social media. Posting on Facebook at the proper moment is essential to increasing user engagement because postings typically don't last long. By examining user interactions (likes and comments) and posting trends across several categories—specifically, traffic police departments and e-commerce brands—this study explores the best times to publish on Facebook pages.   
post ID (pid) connects the two tables in the dataset, PostSummary and Comments. CreatedTime, category, likesCount, and a structured comment field with timestamps integrated are important fields. For the purpose of identifying periods of high activity and underutilization, posts are separated into 96 15-minute time intervals each day.

# **Traffic Police Page Analysis**

Three pages were included in the traffic category: Bengaluru, Hyderabad, and Kolkata Traffic Police.

* The busiest was the Bengaluru Traffic Police, which had 97 positions at its height between 3:00 and 3:15 AM. Thirty time slots, however, were idle. Interestingly, six time slots—mostly in the morning and lunchtime hours, probably for updates or alerts—had more than fifty posts.
* With a surge between 9:30 and 9:45 AM, Hyderabad Traffic Police had a more evenly distributed posting throughout the day. Just ten slots had no posts, indicating a regular strategy in line with the busiest commuter periods.
* The least amount was posted by Kolkata Traffic Police. With a low average of 4.66 posts per slot, nearly 50% of the day's slots were unfilled. This points to underuse and opportunities to improve digital outreach.

# **E-commerce Page Analysis**

In terms of regularity and posting volume, Snapdeal led all e-commerce firms, while Amazon India posted the least.

* With an average of 31.4 posts per slot and a peak of 68 posts between 4:30 and 4:45 AM, Snapdeal was in the lead. Five late-night periods had no posts, whereas twenty time slots had more than fifty, suggesting a planned content schedule.
* Myntra had a 145-post peak between 6:30 and 6:45 AM and shown good consistency (avg. 26.39). Eleven time slots had more than 50 posts, and all 96 spaces were utilized. The brand obviously targets the noon and pre-work scrolling habits.
* With 7.15 posts per slot, a 25-post peak, and 13 zero-post spaces, Flipkart adopted a moderate approach. Although the strategy is cautious, it might be advantageous to pinpoint periods of increased interaction.
* With an average of only 3.82 posts per slot, no slot had more than 14 posts, and there were 18 dormant spaces, Amazon India was the least active. This implies lost chances for interaction or a shift in marketing priorities.

# **Average likes per category**

This is an interesting analysis where we calculate the average number of likes per post for each category. This statistic shows glaring differences between industries:

* Websites, apparel, and retail had the most likes, probably as a result of their expensive advertisements and attractive designs.
* The moderate number of likes on the politician and media/news pages indicates steady but less viral participation.
* The low averages for the government and healthcare pages indicated either limited reach or lower entertainment value.

# **Key Insights and Recommendations**

* Engagement is highest during the morning and lunchtime hours, particularly from 6:30 to 9:00 AM and from 12:00 to 1:30 PM.
* Unrealized potential is indicated by inactive slots, particularly for pages such as Kolkata Traffic Police and Amazon India.
* Long-term visibility is enhanced by consistency, as demonstrated by Myntra.
* Focusing on a particular category is important since user-driven sites inherently attract more engagement.

# **Conclusion**

Facebook engagement is greatly impacted by the time of posts. Brands and government organizations can increase visibility and interaction by matching posting methods to user activity and content type. This model may be improved in the future by examining user demographics, answer kinds, and sentiment.