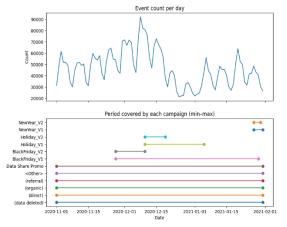
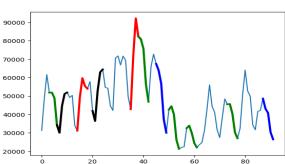
Reccomendations, Google Merchandise Store

The analysis carried out on the data provided by the client identified about 4.3 million events recorded on the site under review, "googlemerchandisestore.com." Specifically, 17 distinct event types were examined, though the primary focus of the analysis was the "purchase" event. Before concentrating on this event, a temporal analysis was performed. The data span a three-month period, from November 2020 to January 2021. Within this time frame, no notable differences were detected in the daily distribution of recorded events; however, a slight decline can be observed as the end of each month approaches.

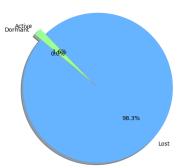


The time-series analysis of events is shown in the figure, where you can see that events rise until December 10 and then begin a rapid decline. If we look at how these events evolve over time relative to the campaigns run by Google Merchandise, we can see that the Holiday_V1 and Holiday_V2 campaigns fall within a period of (likely) declining event volume. Launching a campaign during such a trend could help stimulate on-site activity and, consequently, sales.



The motif analysis of these time series makes it possible to identify a set of common patterns that could be useful for designing new advertising campaigns.

If we want to capitalize on an upswing in events and interactions on googlemerchandise.com, it would be ideal to launch something in the period from mid-November to around the 18th–19th of the month, as well as roughly from December 5th to 10th. This is because these two periods exhibit different shapes, which suggests they respond to similar social or market drivers.



User distribution by segment

The segment analysis shows that, within this time span, 267,146 customers made a purchase, and more than 98% are classified as "Lost," as shown in the figure.

These same customers made **5,692** purchases in recent months. **19,722** items were added to cart, so about **35**% of the items added were actually purchased.

I'd suggest a gentle welcome series for new customers like three short messages over a week, highlighting real customer stories and a limited-time free-shipping offer on the first order. For recent buyers, timely follow-ups within 7–14 days with simple related recommendations or small bundles can help, along with a light "invite a friend" nudge. For those quiet for 31–60 days, a friendly reminder around day 35–45 via email or ads, paired with a small perk (like free shipping over a threshold), may be enough.

If someone has been inactive for 60+ days, a clear offer may works; if there's still no response by about 90 days, it may be sensible to reduce higher-cost ads to them. We can also revisit the 60-day cut-off after we see how long people typically take to buy again and adjust these windows accordingly.