



Data Analysis and Visualization for

Google Business Profile

Aggregate performance metrics

Create a formula that combines multiple data points into a single metric that can be used to interpret performance data.

Considerations:

- The chosen metric needs to account for profiles in high population areas will receive more impressions and actions than those in less populated areas.
- The search volume should be a spread of search keywords rather than just branded ones.
- Not all performance metrics are equal
- Two metrics. One for insights data and one for reviews.

Custom: Engagement Score

This score aims to measure the profiles performance by combining multiple elements with predefined weights, aiming to quantify the level of customer interaction and interest.

- **Action Rate - 50%** : The ratio of actions to impressions, multiplied by a factor to gauge the efficiency of the listing in converting views into direct engagement.
 - **Actions:** The total of specific user actions—call clicks, direction requests, and website clicks—indicating direct engagement with the location.
 - **Impressions:** The total number of times the location's listing appeared in search results or on maps, reflecting the visibility of the location to potential customers.
- **Search Volume - 40%** : The total search volume associated with the location, measuring how often users are searching for the location.
- **Keyword Count - 10%** : The number of unique keywords generating the search volume, indicating the diversity of search terms associated with the location.

Google Business Profile Review Data

Custom: Review Score

This score is a composite metric that evaluates the overall customer satisfaction through the quantity and quality of reviews a location has received. It is calculated using four primary components:

- **Location Rating - 40%** : This represents the average rating of the location, and is derived from the most recent rating available in the dataset.
- **Total Reviews - 20%** : The total number of reviews that the location has received. This number reflects the volume of feedback and can indicate the popularity or visibility of the location.
- **New Reviews - 10%**: The count of new reviews received during the specified period, indicating recent customer engagement and feedback activity.
- **Average Star Rating - 30%**: This is the average rating from user reviews within the specified period, providing a snapshot of recent customer satisfaction.

	Location ^	Search Volume	Impressions	Actions	Action Rate	Keyword Count	Location Rating	Total Reviews	New Reviews	Avg. Star Rating	Engagement Score	Review Score
1.	ACME Tyres - ...	2,309	6,741	646	0.05%	94	4	69	1	5	933	17
2.	ACME Tyres ...	1,127	3,673	708	0.10%	54	5	100	2	3	456	23
3.	ACME Tyres ...	3,869	11,896	1,195	0.05%	172	5	101	2	5	1,565	24
4.	ACME Tyres ...	1,490	4,388	1,040	0.12%	62	4	100	2	3	602	23
5.	ACME Tyres ...	869	3,261	870	0.13%	57	5	121	8	5	353	28

These metrics can also be plotted onto a time series chart to see progress over time.

Enter Custom Query

```

1  -- Define parameters to adjust the query with the dates of your chart
2  WITH params AS (
3    SELECT
4      PARSE_DATE('%Y%m%d', @DS_START_DATE) AS start_date, -- Parsing the start date parameter
5      PARSE_DATE('%Y%m%d', @DS_END_DATE) AS end_date      -- Parsing the end date parameter
6  ),
7
8
9  -- Calculate the Review Score for each location
10 ReviewScore AS (
11   SELECT
12     locationName,
13     -- Location Rating: The rating of the profile
14     ARRAY_AGG(locationAverageRating IGNORE NULLS ORDER BY date DESC LIMIT 1)[OFFSET(0)] AS LocationRating,
15     -- Total Review: Number of total reviews
16     ARRAY_AGG(totalReviewCount IGNORE NULLS ORDER BY date DESC LIMIT 1)[OFFSET(0)] AS totalReviews,
17     -- Average Star Rating: Average rating received from user reviews
18     AVG(starRating) AS averageStarRating,
19     -- New Reviews: Number of new reviews received within the period
20     COUNT(DISTINCT reviewId) AS newReviews,
21     -- Calculate the Review Score as per the given weights
22     ((ARRAY_AGG(locationAverageRating IGNORE NULLS ORDER BY date DESC LIMIT 1)[OFFSET(0)] * 0.4) + (ARRAY_AGG(totalReviewCount IGNORE NULLS
23     ORDER BY date DESC LIMIT 1)[OFFSET(0)] * 0.2) + (AVG(starRating) * 0.3) + (COUNT(DISTINCT reviewId) * 0.1)) AS ReviewScore
24 FROM
25   `jepto-845d1d7374e745ee.GMB_85d37eadd1b9421e.jepto_gmb_data`
26 CROSS JOIN
27   params
28 WHERE
29   date BETWEEN params.start_date AND params.end_date
30 GROUP BY
31   locationName
32 ),
33
34 -- Calculate the Engagement Score for each location
35 EngagementScore AS (
36   SELECT
37     locationName,
38     -- Actions: Total user actions such as clicks, calls, and direction requests
39     SUM(IFNULL(callClicks, 0) + IFNULL(directionRequests, 0) + IFNULL(webClicks, 0)) AS actions,
40     -- Impressions: Total user impressions across search and maps
41     SUM(IFNULL(searchImpressions, 0) + IFNULL(mapsImpressions, 0)) AS impressions,
42     -- Action Rate: Total user actions such as clicks, calls, and direction requests divided by the total impressions generated by the profile
43     SAFE_DIVIDE(SUM(IFNULL(callClicks, 0) + IFNULL(directionRequests, 0) + IFNULL(webClicks, 0)), SUM(IFNULL(searchImpressions, 0) + IFNULL(mapsImpressions, 0))) AS actionRate,
44     -- Search Volume: Total search volume attributed to the profile
45     SUM(searchVolume) AS searchVolume,
46     -- Keyword Count: Number of keywords generating the search volume

```

Custom Query in Google Looker Studio that connects to GBP data in BigQuery