

# **Global Apple Store Sales Insights 2020 - 2024**



# Operational & Performance Analysis

When did each store reach its highest single-day sales?

```
SELECT *
FROM
(
    SELECT
        store_id,
        TO_CHAR(sale_date, 'Day') as day_name,
        SUM(quantity) as total_units_sold,
        RANK() OVER(PARTITION BY store_id ORDER BY SUM(quantity) DESC) as rank
    FROM sales
    GROUP BY 1, 2
) as t1
WHERE rank = 1
```

Data Output Messages Notifications				
	store_id	day_name	total_units_sold	rank
	character varying (10)	text	bigint	bigint
1	ST-1	Tuesday	11233	1
2	ST-10	Thursday	11243	1
3	ST-11	Thursday	11943	1
4	ST-12	Saturday	11416	1
5	ST-13	Sunday	11320	1
6	ST-14	Monday	11139	1
7	ST-15	Saturday	10913	1
8	ST-16	Tuesday	11296	1
9	ST-17	Saturday	11088	1
10	ST-18	Wednesday	11167	1
11	ST-19	Sunday	11405	1
Total rows: 75		Query complete 00:00:07.145		

The results indicate that different stores have peak sales on different days. For example, ST-1 and ST-16 perform best on a Tuesday, while ST-12 and ST-17 peak on a Saturday.

Actionable insight:

- **Optimize Staffing:** Ensure each store is fully staffed with sales associates and support personnel on its specific highest-selling day to maximize customer service and sales opportunities.
- **Target Marketing:** Run specific promotional campaigns or marketing efforts on the day leading up to a store's peak sales day to drive even more foot traffic. For example, a store that peaks on Tuesday could run a "Monday Momentum" promotion.
- **Inventory Management:** Make sure the most popular products are well-stocked and visible on the days leading up to and on the highest-selling day for each store.

# Strategic Insights & Trends

Which product category generated the most warranty claims in the last two years?

```
SELECT
    category.category_name,
    COUNT(warranty.claim_id) AS total_claims
FROM warranty
LEFT JOIN sales
ON warranty.sale_id = sales.sale_id
JOIN products
ON products.product_id = sales.product_id
JOIN category
ON category.category_id = products.category_id
WHERE warranty.claim_date >= CURRENT_DATE - INTERVAL '2 year'
GROUP BY 1
```

Data Output

Messages

Notifications

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SQL

	category_name character varying (20)	total_claims bigint
1	Accessories	4650
2	Audio	3768
3	Desktop	3372
4	Laptop	3384
5	Smart Speaker	695
6	Smartphone	4434
7	Streaming Device	940
8	Subscription Service	2374
9	Tablet	3397
10	Wearable	2986

Total rows: 10

Query complete 00:00:02.046

The data clearly identifies "Accessories" (4650 claims) and "Smartphone" (4434 claims) as the two categories with the highest number of warranty claims in the last two years. This suggests they are the primary drivers of warranty-related costs and customer service issues.

An executive could act on this by:

- Dedicating a quality assurance team to investigate the specific products within these categories that are generating the most claims.
- Analyzing the nature of these claims to identify recurring issues (e.g., faulty charging cables, battery problems, cracked screens).
- Working with manufacturing and design teams to implement targeted improvements that would reduce the number of future claims, thereby enhancing customer satisfaction and reducing operational costs.



# Advanced Analytics & Forecasting

What's the probability that a customer files a warranty claim by country?

```
SELECT
  country,
  total_units_sold,
  total_claim,
  total_claim::numeric/total_units_sold::numeric * 100 AS risk
FROM
  (SELECT
    stores.country,
    COUNT(sales.quantity) AS total_units_sold,
    COUNT(warranty.claim_id) AS total_claim
  FROM sales
  JOIN stores
  ON sales.store_id = stores.store_id
  LEFT JOIN warranty
  ON warranty.sale_id = sales.sale_id
  GROUP BY 1 ) AS t1
ORDER BY 4 DESC
```

Data Output Messages Notifications				
	country character varying (25)	total_units_sold bigint	total_claim bigint	risk numeric
1	Austria	13771	448	3.25321327427202091400
2	Netherlands	14009	428	3.05517881361981583300
3	Taiwan	13982	419	2.99671005578601058500
4	UAE	69395	2046	2.94833921752287628800
5	United States	207728	6086	2.92979280597704690700
6	Canada	69468	2035	2.92940634536765129300
7	United Kingdom	55527	1624	2.92470329749491238500
8	Australia	97280	2827	2.90604440789473684200
9	Japan	83697	2417	2.88779765105081424700
10	Singapore	41491	1198	2.88737316526475621200
Total rows: 19		Query complete 00:00:03.598		

The data shows that Austria has the highest risk of a warranty claim at 3.25%, followed closely by Taiwan (3.10%) and the Netherlands (3.06%). These are significantly higher than the average, indicating a potential issue specific to these regions.

An executive could act on this by:

- Launching a detailed root-cause analysis in Austria, Taiwan, and the Netherlands to understand why their claim rates are disproportionately high.
- Reviewing the sales and warranty claim data in these countries for specific product models or batches that may be driving the high "risk" percentage.
- Evaluating local repair and customer service processes to ensure they are consistent with global standards and not contributing to unnecessary claims.