



SQL and Databases: Project Report

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Business Overview

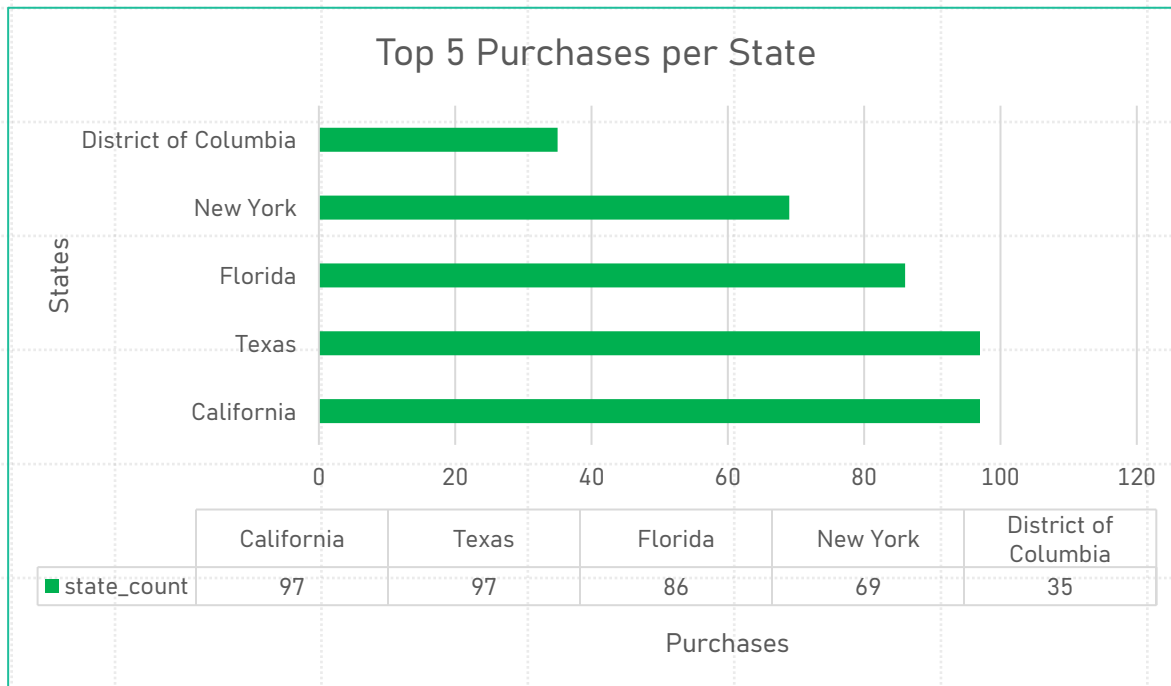
- **Total Revenue:**
\$124,714,086.32
- **Total Orders:**
1000
- **Total Customers:**
994
- **Average Rating (Out of 5):**
3.07
- **Last Qtr Revenue:**
\$23,346,779.63
- **Last Qtr Orders:**
199
- **Avg Days to Ship:**
105
- **% Good Feedback:**
23.32%



Customer Metrics



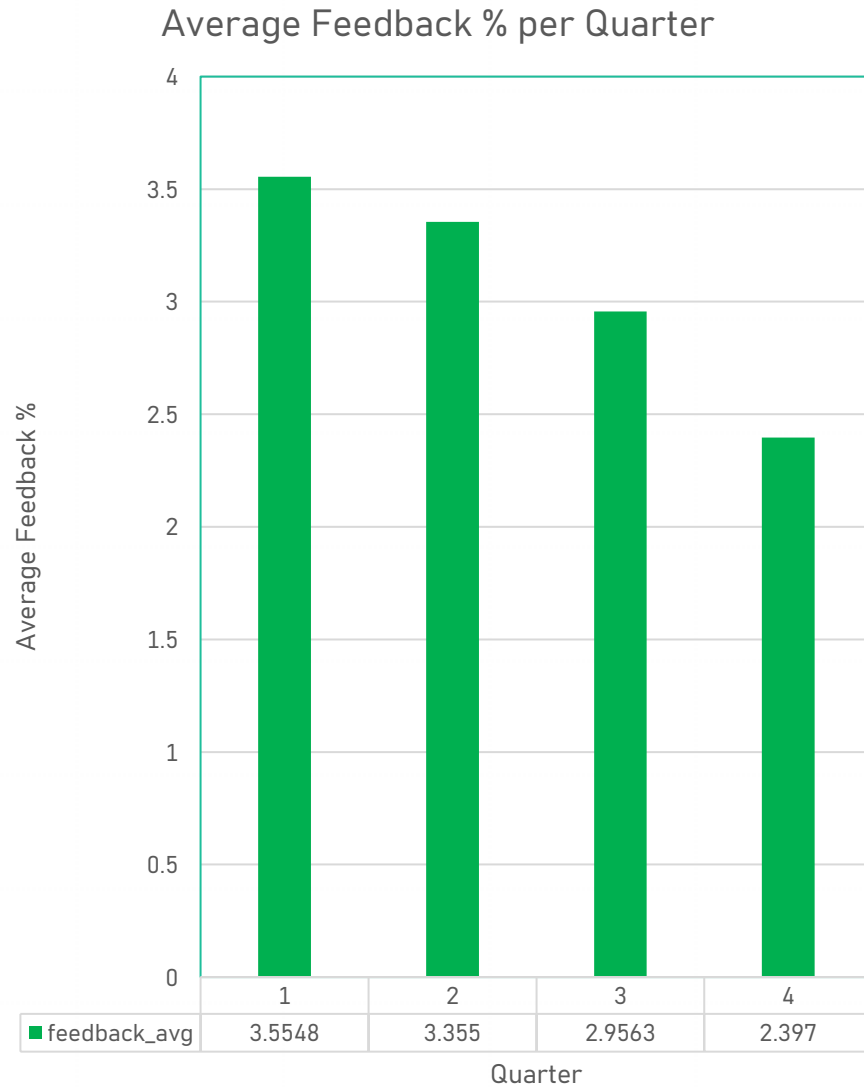
Distribution of Customers across State



- **Observations/Findings:**

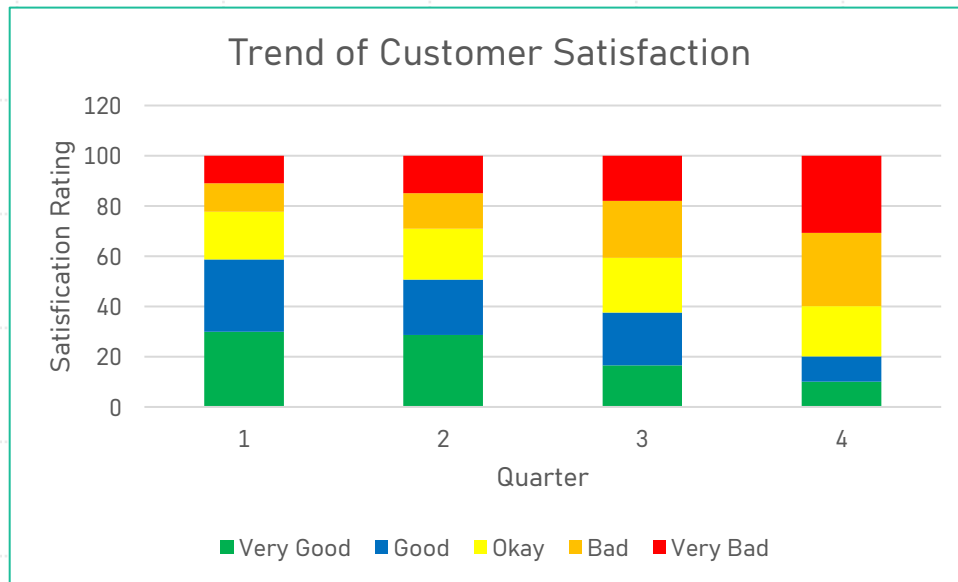
- **Top 5:** California and Texas lead the nation in car purchases, followed by Florida, New York and the District of Columbia.
- **Population Density:** These states tend to have high population densities, which could lead to a greater overall need for cars.
- **Urbanization:** More urban areas often rely less on public transportation and more on personal vehicles.

Average Customer Ratings by Quarter



- **Observations/Findings:**
- **Decrease:** There have been a **steady decrease** in the % of customer satisfaction rating received from each quarter.
- **Dissatisfaction:** The recurring decline suggest the customer are unhappy with the product or service provided.
- **Customer support:** Is customer support responsive and helpful remedy problems?

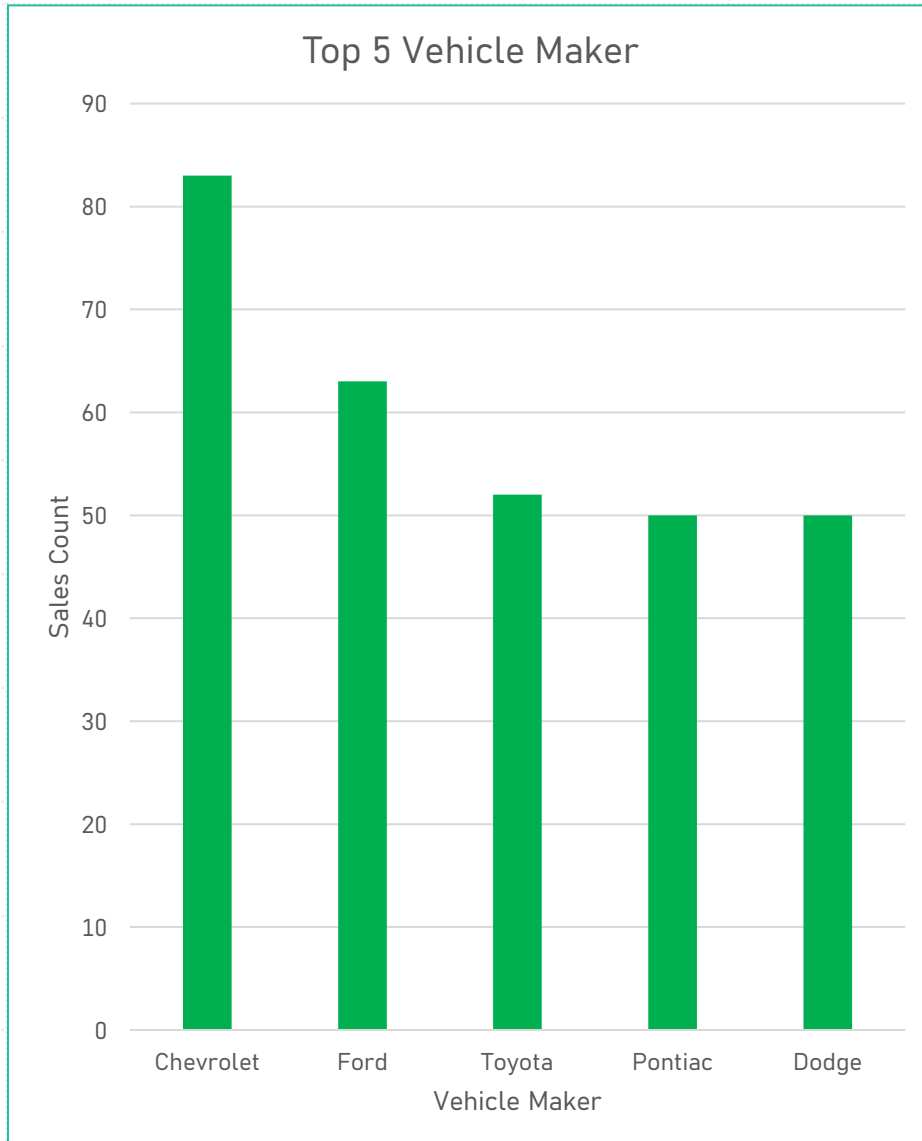
Trend of Customer Satisfaction



- **Observations/Findings:**

- The severity of the terms from “very good” to “very bad” suggest a substantial shift in the customer perception.
- Potential issue with the product, service, or customer experience.
- Progressive worsening of the situation since the continuous decline. Not a one-time event.

Top Vehicle Makers Preferred By Customers



- **Observations/Findings:**
- **Domestic** vehicle maker make up the majority of customers.
- **Chevrolet** emerges as the most preferred vehicle maker among customers.
- **Ford** follows behind in second place
- **Toyota** secures the third position, **Pontiac** and **Dodge** follows closely behind in third and fourth respectively.

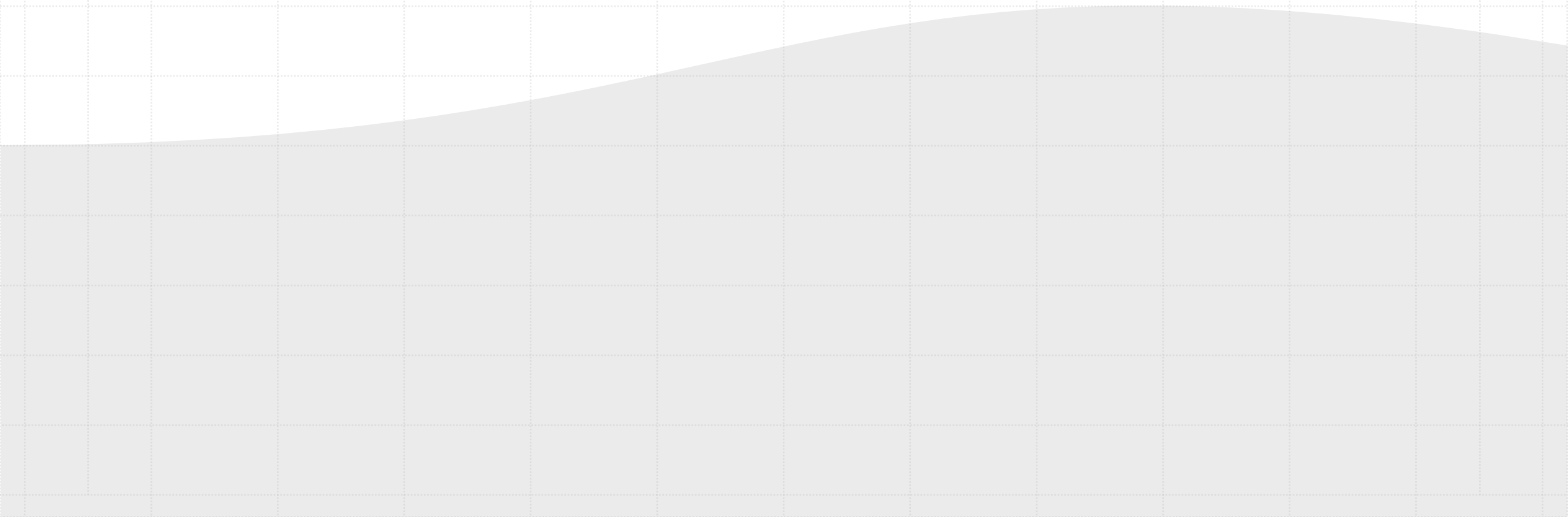
Row Labels	Count of State
Acura	3
Audi	2
BMW	2
Buick	4
Cadillac	4
Chevrolet	17
Chrysler	2
Dodge	12
Ferrari	1
Ford	10
GMC	5
Honda	2
Hyundai	3
Isuzu	3
Jaguar	1
Jeep	1
Kia	2
Lexus	2
Lincoln	2
Maserati	2
Maybach	1
Mazda	8
Mercedes-Benz	6
Mercury	2
Mitsubishi	4
Nissan	7
Oldsmobile	1
Pontiac	11
Porsche	1
Ram	1
Saab	1
Subaru	2
Suzuki	2
Toyota	9
Volkswagen	4
Volvo	3
Grand Total	143

Most Preferred Vehicle Make In Each State

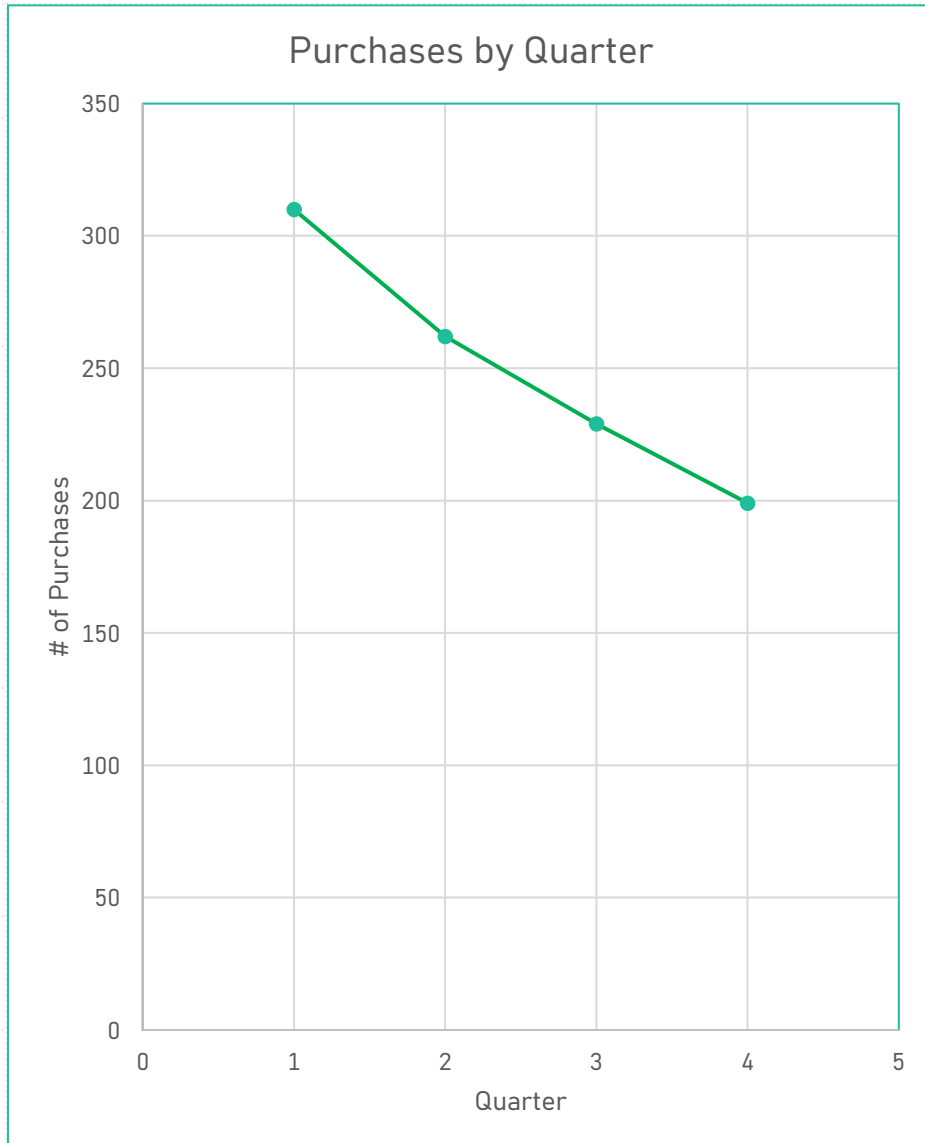
- **Observations/Findings:**
- **Chevrolet** emerges as the most preferred vehicle maker across states.
- **Dodge** follows behind in second place.
- **Pontiac** secures the third position; **Ford** follows behind in third.



Revenue Metrics

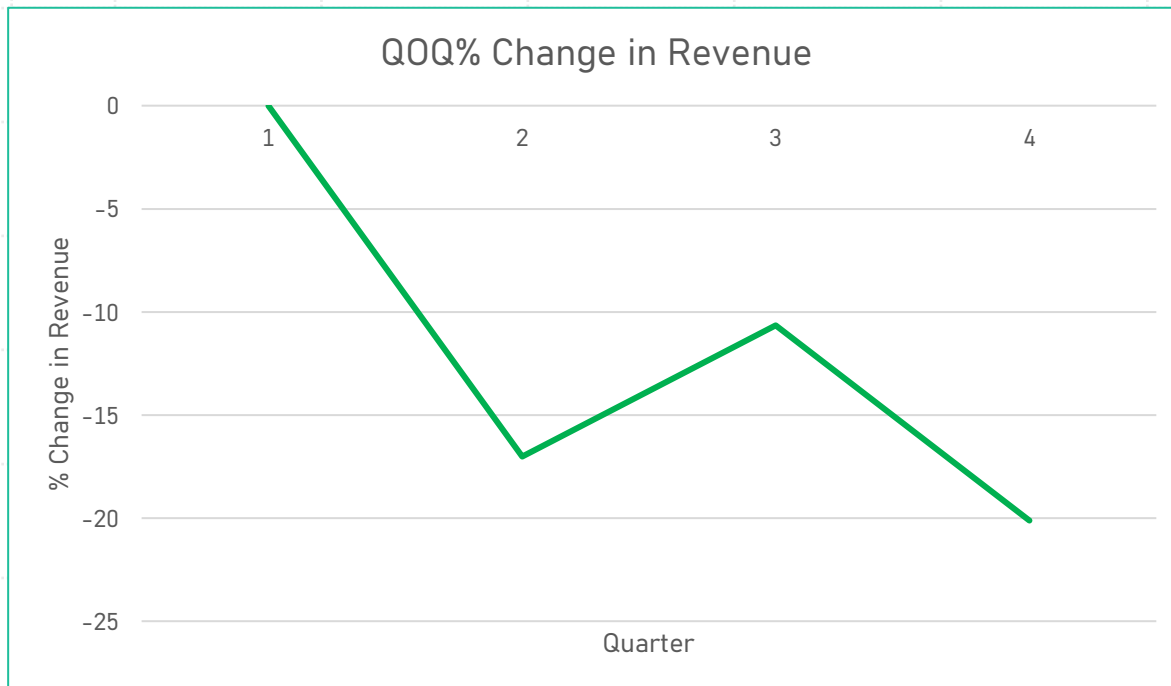


Trend of Purchases by Quarter



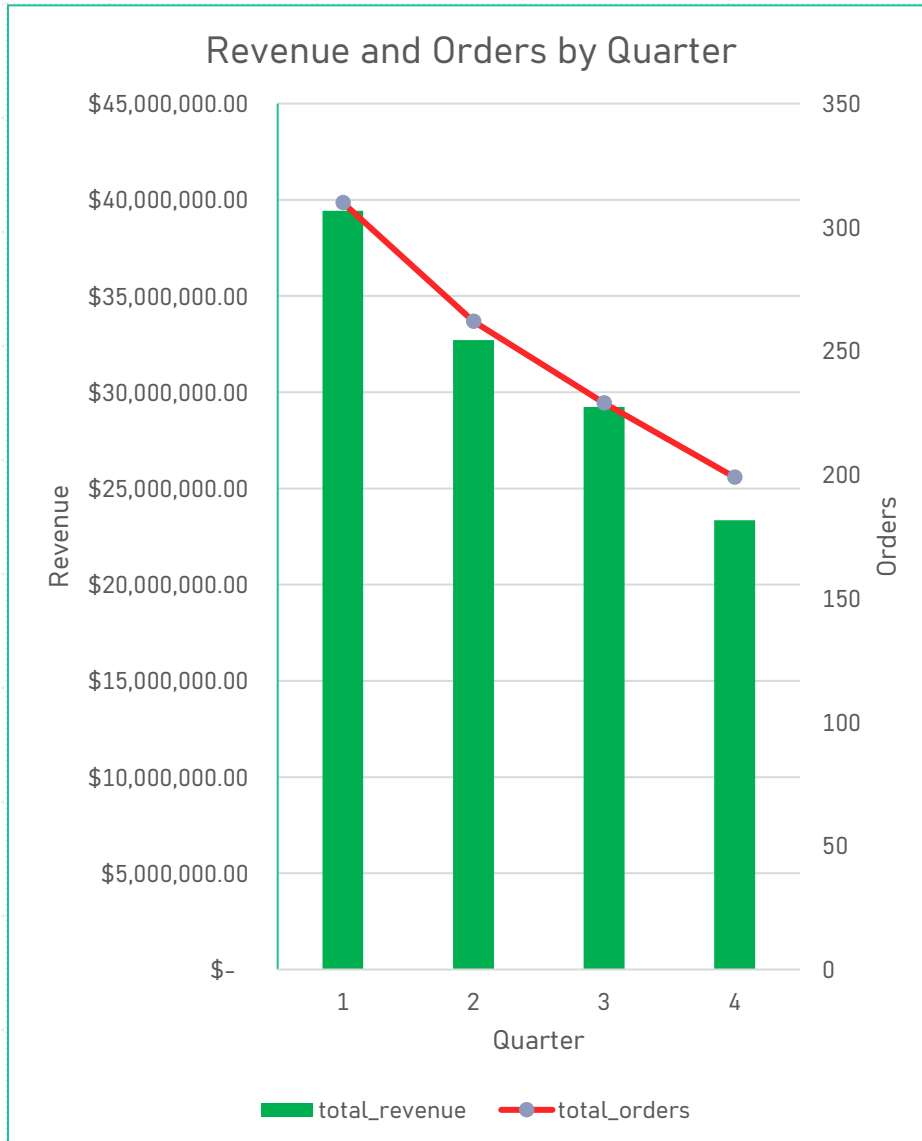
- **Observations/Findings:**
- **Q1:** Highest purchase volume at 310.
- **Q2:** Dip from Q1, with purchases at 262.
- **Q3/Q4:** Continued decline, at 229 and 199 purchases.

Quarter on Quarter % Change in Revenue



- **Observations/Findings:**
- **Q2:** Revenue **decreased by 17%** compared to **Q1**.
- **Q3:** Revenue **decreased by 10%** compared to **Q2**.
- **Q4:** Revenue **decreased by 20%** compared to **Q3**.

Trend of Revenue and Orders by Quarter

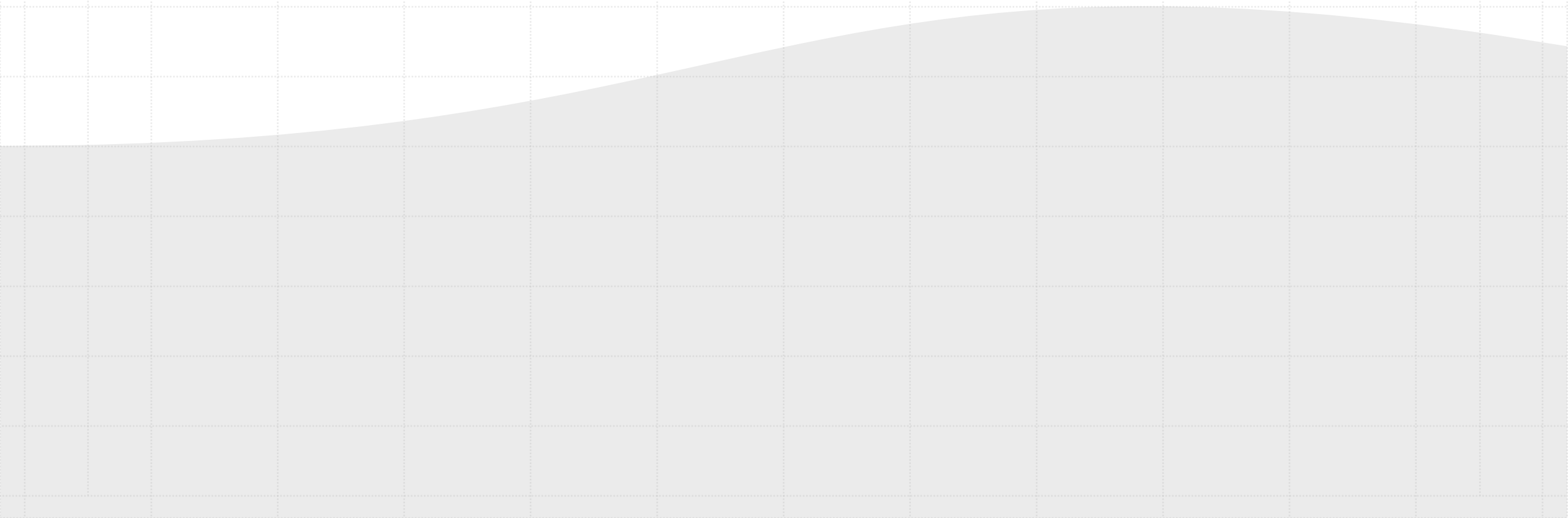


Observations/Findings:

- **Q1:** Highest revenue at ~\$39 million.
- **Steady Decline:** Revenue dropped to ~\$32 million in **Q2** and continue to decline in **Q3** and **Q4**.
- **Overall Decrease:** ~Approximately **41%** from **Q1** to **Q4**.

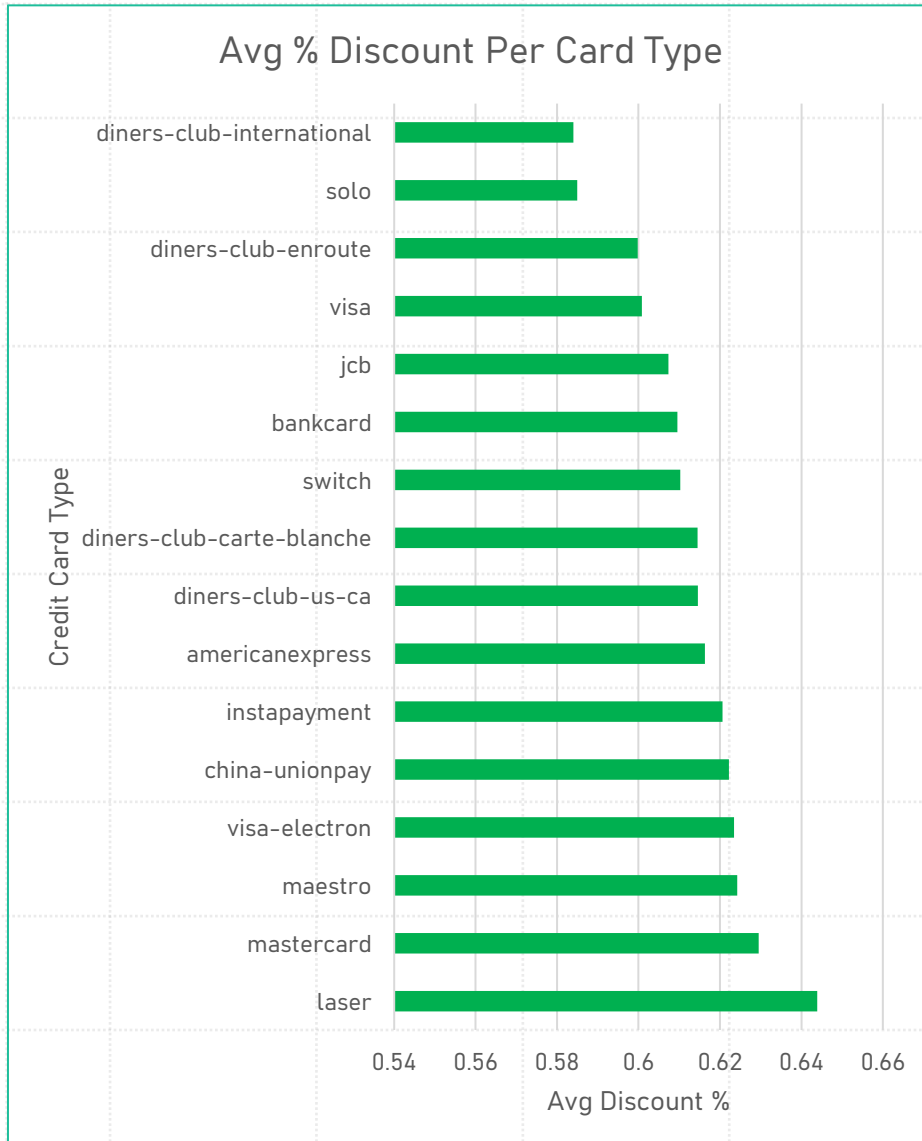


Shipping Metrics



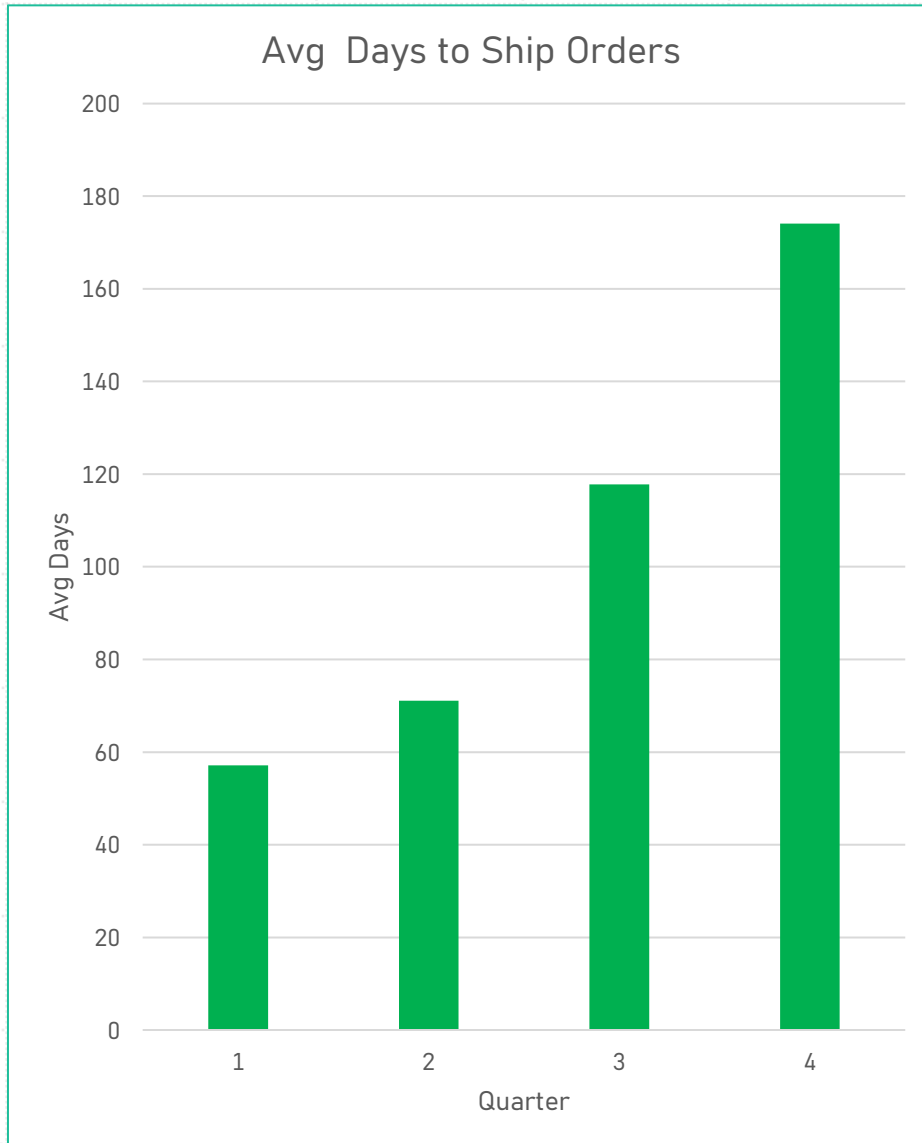
Average Discount Offered by Credit Card Type

- **Observations/Findings:**
- **Top 5 Credit Card Type Discounts:**
- **1.** Laser
- **2.** Mastercard
- **3.** Maestro
- **4.** Visa-Electron
- **5.** China-Unionpay



Time Taken to Ship Orders by Quarter

- **Observations/Findings:**
- **Q1:** Average shipping time was 57 days.
- **Sharp Increases:** Shipping times jumped to 71 days in **Q2**, nearly doubling **Q1**.
- **Overall increase:** This represents a **tripling** of shipping times from **Q1** to **Q4** (174 days vs 57 days).





Insights and Recommendations

To better understand the reasons behind the decline, gather additional data and investigate root cause:

- **Analyze customer feedback:** Look for recurring themes or complaints that might indicate specific areas needing improvement.
- **Conduct surveys:** Survey your customers directly to understand their satisfaction levels and gather their feedback.
- **Monitor social media:** See what customers are saying about your brand on social media platforms.
- **Communicate with Customers:** Be transparent about delays and offer faster shipping options.

- **Market conditions:** Has there been a downturn in the overall market that's impacting your industry?
- **Product/Service Issues:** Were there any quality issues or negative customer feedback that affected sales?
- **Competition:** Have new competitors emerged, or have existing competitors gained market share?
- **Marketing/Sales Strategies:** Were there any changes in marketing or sales strategies that might have negatively impacted revenue?