**Problem Statement:** Credit card company financial department wants toevaluate credit card transaction behaviors, customer demographics, and revenue patterns to gain better insight into customer profiles and optimize product strategies, revenue generation, and customer retention.

**Objective of Analysis:**

* The primary goal of this analysis was to understand:
* Revenue trends by card type, customer demographics, and usage.
* Customer segmentation by income, education, job type, and dependents.
* Insights into transaction behavior and credit card usage modes.
* How demographic factors correlate with revenue and interest earned.

**My role:**

**Data Preparation:**

* Loaded and cleaned the transactional and demographic data in Power Query.
* Ensured consistency and merged datasets for cross-sectional analysis.

**Dashboard Design:** The report was divided into **two main dashboards**:

* **Credit Card Transaction Report** – Focused on revenue patterns by card usage and type.
* **Credit Card Customer Report** – Emphasized customer demographics and behavior.

**KPIs Used:** Using DAX created measure and calculated column

* Total Revenue
* Total Transaction Amount
* Total Interest Earned
* Revenue by Education, Card Type, Usage, Job, Age, and Income
* Quarterly revenue trend

**Key Insights**

**1. Revenue Patterns:**

* **Card Type:** The **Blue** card dominates both revenue and transaction amounts (~46M revenue), followed by **Silver**.
* **Usage Type:** Majority of revenue was from **swipe** transactions (35M), followed by **chip** (17M) and **online** (3M).
* **Expenditure Type:** Highest spend was on **Bills**, followed by **Entertainment**, **Fuel**, and **Grocery**.

**2. Customer Demographics:**

* **Income Level:** Highest revenue generated from **medium** income customers (~22M), indicating a strong middle-income customer base.
* **Age Groups:** The **60+** age group contributed the highest revenue (~14M), followed by **30-40** age group (~11M).
* **Education:** Customers with a **Graduate** degree generated the most revenue (~22M).
* **Customer Job:** **Businessmen** brought in the highest revenue (~17M) and income (~186M), followed by **White-collar** professionals.

**3. Geographical Insights:**

* **Top 5 States** by Revenue: **TX**, **NY**, **CA**, **FL**, and **NJ**.
* These states combined show a diverse customer base and strong regional presence.

**4. Other Demographics:**

* **Dependents:** Customers with **0 to 2 dependents** contributed the most revenue.
* **Marital Status:** **Unknown** marital status customers had the highest revenue, followed closely by **Married**.
* **Gender:** No significant difference in revenue between **Males** and **Females** was visually observed.

**5. Time Trend:**

* Revenue fluctuated across quarters with noticeable spikes in specific months (e.g., **Jan and Jul 2023**), possibly tied to seasonal spending.

**Recommendations:**

**Card Strategy:**

* Leverage popularity of **blue and silver** cards with tailored promotions and loyalty rewards.
* Improve online transaction experience to increase revenue from **online** usage.

**Target Segments:**

* Focus marketing campaigns on **30-40** and **60+** age groups.
* Develop premium products for **Businessmen** and **White-collar** customers due to their high spending and income levels.

**Education-Based Offerings:**

* Create educationally targeted financial products, especially for **Graduates** and **Post-Graduates**.

**Retention and Engagement:**

* Enhance engagement with high-value states (TX, NY, CA) via region-specific campaigns.

**Further Analysis:**

* Investigate why “Unknown” categories (education, marital status) are highly represented and improve data collection methods for better insights.

**Key Notes:**

This Power BI-based credit card analytics dashboard provided actionable insights into customer behavior, card performance, and revenue drivers. It enables the organization to make data-driven decisions to optimize product offerings, improve customer experience, and drive profitability.