**Power BI Credit Card Data Analysis Project Conclusion**

**1. Customer Demographics Report:**

In this report, we explored customer data and gained valuable insights into transaction patterns and revenue generation. Key findings include:

* **Interest Earned & Revenue:** We calculated the total interest earned and revenue from credit cards.
* **Transaction Amount by Age Group:** Using a clustered column chart, we found that the **40-50 age group had the highest transaction amounts**.
* **Transactions by Marital Status:** A column chart showed that **married users performed transactions more frequently** than other groups.
* **Revenue by Expenditure Type:** Visualizing revenue across expenditure categories helped us understand which spending areas drive revenue.
* **Transaction Amount by Card Category:** The **blue card category had the highest transaction amount**, as shown through visualization.
* **Revenue by Education Level:** Using a clustered column chart and slicers for date, gender, and marital status, we observed how revenue varied across education levels.

**2. Credit Card Usage Pattern Report:**

This report focused on understanding transaction behaviour and usage trends. Key insights include:

* **Transaction Amount & Revolving Balance:** We created cards to display the **sum of transaction amounts** and **sum of revolving balances**.
* **Utilization Ratio by Quarter:** A table highlighted the **average utilization ratio for each quarter**.
* **Trend Analysis:** A line chart helped visualize the **monthly trends in transaction amounts and revolving balances**.
* **Interest Earned by Card Category:** We visualized how **interest earned varied across different card categories**.
* **Quarterly Interest Trends:** Another line chart showcased how **interest earned fluctuated over quarters**, with slicers to filter by card category and quarter.

**3. Delinquency Report:**

This report analyze delinquency metrics and customer satisfaction. Key takeaways include:

* **Customer Satisfaction by Quarter:** A **funnel chart** revealed the **average customer satisfaction score for each quarter**.
* **Card Limit by Gender:** A **clustered bar chart** showed the **average card limit split by gender**.
* **Delinquent Balance Variation:** A **column chart** illustrated how **delinquent balances varied across age groups and marital statuses**.

**Overall Conclusion:**

The Power BI dashboard provided a comprehensive view of credit card data, enabling us to uncover patterns in customer behaviour, spending habits, and delinquency factors. By visualizing data through various charts and using slicers for dynamic filtering, we transformed raw data into meaningful insights. These findings can guide financial institutions in optimizing product offerings, enhancing customer targeting, and improving credit risk management.