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RFM ANALYSIS

Business Context:

A leading automobile retailer, faced challenges in customer retention and inefficient marketing targeting. The marketing team lacked insights into which customers were most valuable and how to target them effectively with personalized offers.

AI Model Support:

By leveraging RFM analysis enhanced by data processing algorithms, the company automated customer segmentation and predicted future purchasing behavior based on past transaction data.

DATASET DESCRIPTION

Dataset Source:

- customer sales database, consisting of detailed transaction records over the past five years.

Key Variables:

- Customer Transactions:
  - Order Details: Order number, date, purchase status (completed, canceled).
  - Item Information: Quantity, price, product code, MSRP, and product line (e.g., sedans, SUVs, parts).
- Customer Information:
  - Derived data includes recency (last purchase date), frequency (number of orders), and monetary value (total amount spent).

ANALYTICAL METHODOLOGY - RFM ANALYSIS

- *Steps in Analysis:*

1. *Data Cleaning: Removed canceled or incomplete orders and standardized customer records.*
2. *RFM Score Calculation:*
    - *Recency: Number of days since the last transaction.*
    - *Frequency: Total purchases in the last year.*
    - *Monetary: Total spend over the customer's history.*
3. *Scoring and Segmentation:*
    - *Customers were assigned scores (e.g., 1-5) for each of the RFM components, and AutoMart created actionable segments like "VIP Customers" (high in all three metrics) and "At-Risk" customers (high spend but low recent activity).*

- *Tools Used: Python libraries (Pandas, NumPy) for data processing, along with Seaborn and Matplotlib for visualizing customer segmentation.*

ANALYTICAL METHODOLOGY MODEL DEVELOPMENT

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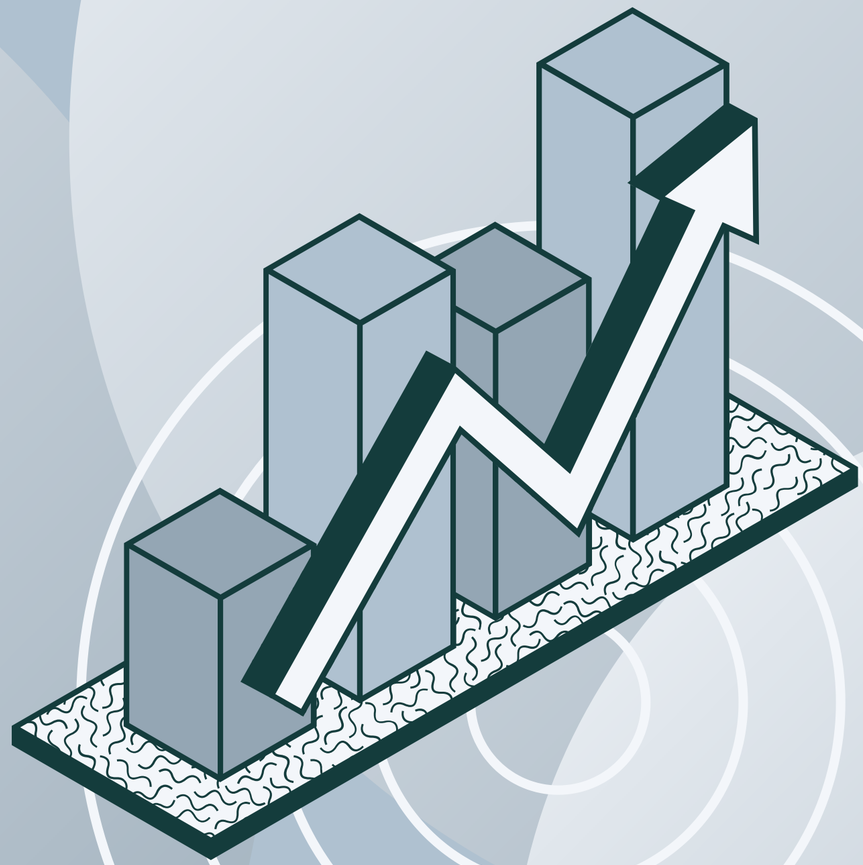

BUSINESS RESULTS AND IMPLICATIONS

Business Results:

- We identified that 15% of the customers contributed to nearly 60% of the total revenue.
- The company also found that 30% of their high-spending customers hadn’t made a purchase in the last 6 months, signaling a potential loss of valuable clients.
- A targeted marketing campaign focusing on this "At-Risk" group led to a 25% increase in customer retention and a significant uplift in sales for the high-value product lines.

Practical Implications:

- The company could launch personalized email campaigns offering discounts and promotions tailored to the purchasing behavior of high-value customers.
- The company also improves its customer loyalty program, providing exclusive offers to frequent buyers and re-engaging lost customers through special incentives.
- The AI-driven RFM model is now an integral part of the company’s ongoing customer relationship management, improving marketing ROI and boosting overall profitability.