

CASE STUDY – CREDIT CARD SEGMENTATION



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DATA AVAILABLE:

CC GENERAL.csv

BUSINESS CONTEXT:

This case requires trainees to develop a customer segmentation to define marketing strategy. The sample dataset summarizes the usage behavior of about 9000 active credit card holders during the last 6 months. The file is at a customer level with 18 behavioral variables. Expectations from the Trainees:

EXPECTATIONS FROM THE TRAINEES:

- ✓ Advanced data preparation: Build an 'enriched' customer profile by deriving "intelligent" KPIs such as:
 - Monthly average purchase and cash advance amount
 - Purchases by type (one-off, installments)
 - Average amount per purchase and cash advance transaction,
 - Limit usage (balance to credit limit ratio),
 - Payments to minimum payments ratio etc.
- ✓ Advanced reporting: Use the derived KPIs to gain insight on the customer profiles.
- ✓ Identification of the relationships/ affinities between services.
- Clustering: Apply a data reduction technique factor analysis for variable reduction technique and a clustering algorithm to reveal the behavioural segments of credit card holders
- ✓ Identify cluster characterisitics of the cluster using detailed profiling.
- ✓ Provide the strategic insights and implementation of strategies for given set of cluster characteristics

DATA DICTIONARY:

CUST_ID: Credit card holder ID

BALANCE: Monthly average balance (based on daily balance averages)

BALANCE_FREQUENCY: Ratio of last 12 months with balance **PURCHASES:** Total purchase amount spent during last 12 months **ONEOFF PURCHASES:** Total amount of one-off purchases

INSTALLMENTS_PURCHASES: Total amount of installment purchases

CASH_ADVANCE: Total cash-advance amount

PURCHASES_ FREQUENCY: Frequency of purchases (Percent of months with at least one

purchase)

ONEOFF_PURCHASES_FREQUENCY: Frequency of one-off-purchases

PURCHASES_INSTALLMENTS_FREQUENCY: Frequency of installment purchases

CASH_ADVANCE_ FREQUENCY: Cash-Advance frequency

AVERAGE_PURCHASE_TRX: Average amount per purchase transaction **CASH_ADVANCE_TRX**: Average amount per cash-advance transaction

PURCHASES_TRX: Average amount per purchase transaction

CREDIT LIMIT: Credit limit

PAYMENTS: Total payments (due amount paid by the customer to decrease their statement

balance) in the period

MINIMUM_PAYMENTS: Total minimum payments due in the period.

PRC_FULL_PAYMEN: Percentage of months with full payment of the due statement balance

TENURE: Number of months as a customer