CREDIT CARD TRANSACTION ANALYSIS DASHBOARD

USER DATA

- Demographic information about customers
- Account-related details
- Enables customer segmentation and personalized analysis

TRANSACTION DATA

- Detailed transaction records including amounts, timestamps, and merchant details
- Features transaction types, amounts, and merchant information

CREDIT CARD DATA

- Credit and debit card details
- Includes card limits, types, and activation dates
- Links to customer accounts via card_id
- Essential for understanding customer financial profiles

MCC CODES

- Standard classification codes for business types
- Enables transaction categorization and spending analysis
- Industry-standard MCC codes with descriptions

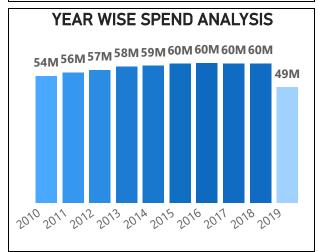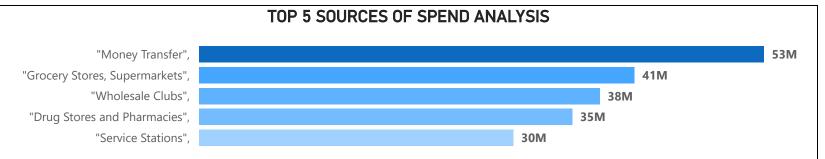| START	OVERVIEW	USER ANALYSIS	TRANSACTION ANALYSIS	CREDIT CARD ANALYSIS	MCC ANALYSIS

PROJECT ANALYSIS

1. This project includes the analysis of Credit Card Transaction done by individuals with the help of various parameters like User data, Transactional data, Credit Card Data and MCC Codes.
2. Month on Month transaction of user by creation of age bucketing, along with categorization of gender
3. Created a decomposition tree to show flow of transaction on various parameters like gender, age bucket, credit card type etc.
4. Comparison of Yearly Income, Per Capita Income with Amount Spent month on month basis
5. Analysis includes the type of transaction done by customer with the help of MCC Code details
6. City wise transaction along with gender so that we can analyze the amount spend by customer

CREDIT CARD TRANSACTION ANALYSIS DASHBOARD

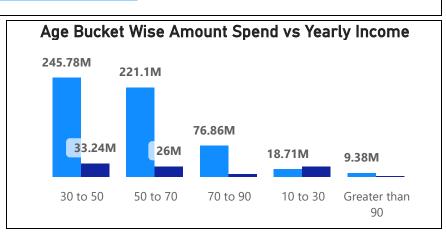## TOP 5 SOURCES OF SPEND ANALYSIS

- "Money Transfer", — 53M
- "Grocery Stores, Supermarkets", — 41M
- "Wholesale Clubs", — 38M
- "Drug Stores and Pharmacies", — 35M
- "Service Stations", — 30M

Amex
3,66,05,223.35
Amount Spend

Discover
1,85,29,297.64
Amount Spend

Mastercard
29,23,02,502.26
Amount Spend

Visa
22,43,98,499.03
Amount Spend

(Quarterly line chart)
- Qtr 1: 143M
- Qtr 2: 145M
- Qtr 3: 147M
- Qtr 4: 137M

YEAR WISE SPEND ANALYSIS

- 2010: 54M
- 2011: 56M
- 2012: 57M
- 2013: 58M
- 2014: 59M
- 2015: 60M
- 2016: 60M
- 2017: 60M
- 2018: 60M
- 2019: 49M

Age Bucket wise Amount Spend

- 30 to 50: 245.78M
- 50 to 70: 221.1M
- 70 to 90: 76.86M
- 10 to 30: 18.71M
- Greater than 90: 9.38M

Age Bucket Wise Amount Spend vs Yearly Income

- 30 to 50: 245.78M / 33.24M
- 50 to 70: 221.1M / 26M
- 70 to 90: 76.86M
- 10 to 30: 18.71M
- Greater than 90: 9.38M

CARD TYPE WISE SPEND

- 56.58M (9.89%)
- 204.61M (35.78%)
- 310.64M (54.32%)

Legend: ● Debit ● Credit ● Debit (Prepaid)

Sum of amount by Month Name and gender

(Stacked bar chart: January, February, March, April, May, June, July, August, September, October, November, December)

Sum of amount by merchant_state, latitude and longitude

Microsoft Bing
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CREDIT CARD TRANSACTION ANALYSIS DASHBOARD

Sum of per_capita_income by Age Bucket and gender

Age Bucket		
30 to 50	8.35M	7.96M
50 to 70	6.76M	6.45M
10 to 30	6.1M	6.13M
70 to 90	2.35M	
Greater than 90		

Sum of amount by use_chip and gender

Swipe Transaction	145.28M	141.88M
Chip Transaction	101.79M	93.69M
Online Transaction	46.24M	42.96M

Sum of amount by merchant_city and gender

City		
Houston	2.2M	4.4M
Miami	1.5M	2.0M
Louisville	2.2M	
San Francisco	1.3M	1.9M
Atlanta	2.2M	
Memphis		2.1M
Las Vegas	1.4M	1.6M
Los Angeles	1.8M	1.2M
Minneapolis	1.6M	1.3M
Oakland		2.0M
Orlando		2.3M
Brooklyn		1.8M
Dallas	1.7M	
Chicago	1.5M	
Philadelphia		1.7M
New York	1.3M	
San Antonio		1.6M
Tucson	1.4M	
Jacksonville		1.5M
Charlotte	1.4M	
Indianapolis		1.6M
Bronx	1.4M	
Richmond		1.3M
San Jose	1.4M	
Yorba Linda	1.9M	
Sacramento		
Monroe		
Canton	1.1M	

Sum of amount by Month and Age Bucket

Month			
January	6.57M	18.84M	20.98M
February	6.05M	17.23M	19.12M
March	6.61M	19.07M	21.27M
April	6.4M	18.44M	20.63M
May	6.59M	19.13M	21.09M
June	6.49M	18.74M	20.8M
July	6.74M	19.13M	21.36M
August	6.66M	19.09M	21.25M
September	6.37M	18.61M	20.57M
October	6.62M	19.12M	21.22M
November	5.77M	16.6M	18.43M
December	5.99M	17.1M	19.06M

CREDIT CARD TRANSACTION ANALYSIS DASHBOARD

Count of errors by errors

Insufficien... | Bad PIN | Technical Glitch | Bad Card Num... | Bad Expiration | Bad CVV | Bad Zipcode | Bad PIN,Insuffic... | Insufficient Bal... | Bad Card Num...

Count of amount by Age Bucket

100%

30 to 50	59.41K
50 to 70	58.32K
70 to 90	42.51K
10 to 30	26.84K
Greater than 90	19.75K

33.2%

Count of amount by card_type

37.46K (23.52%)

66.33K (41.65%)

55.45K (34.82%)

card_type
- Debit
- Credit
- Debit (Prepaid)

Amount Spent, Per Capita Income and Yearly Income by Month and gender

Female

January, February, March, April, May, June, July, August, September, October, November, December

Male

January, February, March, April, May, June, July, August, September, October, November, December

● Amount Spent ● Per Capita Income ● Yearly Income

CREDIT CARD TRANSACTION ANALYSIS DASHBOARD

Sum of amount by card_brand and card_type

- Mastercard: 0.04bn, 0.19bn, 0.06bn
- Visa: 0.02bn, 0.12bn, 0.08bn
- Amex: 0.04bn
- Discover

Sum of amount and Sum of credit_limit by Expiration Bucket

0 to 1500 days | 1500 to 3000 days | 3000 to 5000 days | 5000 to 7000 days | 7000 to 9000 days | Greater than 9000 da...

Sum of amount and Sum of credit_limit by Expiration Bucket and gender

- 0 to 1500 days — Male: 168M
- 0 to 1500 days — Female: 155M
- 5000 — Female: 44M
- 3000 — Female: 41M
- 3000 — Female: 41M
- 1500 to 3000 — Male: 37M
- 3000 — Male: 32M
- 5000 — Male: 28M
- 7000 to 9000 — Male
- 7000 to 9000 — Female
- Greater than — Female
- Greater than — Male

Sum of amount by card_brand and gender

- Mastercard: 0.14bn, 0.15bn
- Visa: 0.11bn, 0.12bn
- Amex: 0.02bn
- Discover

Sum of per_capita_income by card_brand and gender

- Mastercard: 11M, 13M
- Visa: 9M, 9M
- Amex: 2M
- Discover

CREDIT CARD TRANSACTION ANALYSIS DASHBOARD

Month Name ✕	gender ✕	Age Bucket ✕	Details ✕	card_brand ✕	card_type ✕
January	Female	30 to 50	"Airlines",	Visa	

Sum of amount
57,18,35,522.28

January
5,47,40,148.70

February
4,76,18,803.34

March
5,39,35,794.74

April
4,11,45,316.87

May
4,48,49,637.00

June
3,64,19,071.93

July
4,96,70,493.60

August
4,08,90,437.98

Female
3,08,84,278.54

Male
2,38,55,870.16

10 to 30
16,64,914.98

30 to 50
98,15,532.03

50 to 70
1,08,81,849.15

70 to 90
72,69,499.19

Greater than 90
12,52,483.19

"Accounting, Auditing,...
4,457.28

"Airlines",
25,139.45

"Amusement Parks, Ca...
5,607.71

"Antique Shops",
36,010.50

"Artist Supply Stores, ...
24,359.72

"Athletic Fields, Comm...
23,614.15

"Automotive Body Rep...
7,305.07

"Automotive Parts and...
9,713.13

Amex
3,123.33

Mastercard
11,883.87

Visa
10,132.25

Credit
5,222.86

Debit
1,844.64

Debit (Prepaid)
3,064.75