UnityStar Bank

CUSTOMER BEHAVIOR ANALYSIS

Created by Avirup Mitra
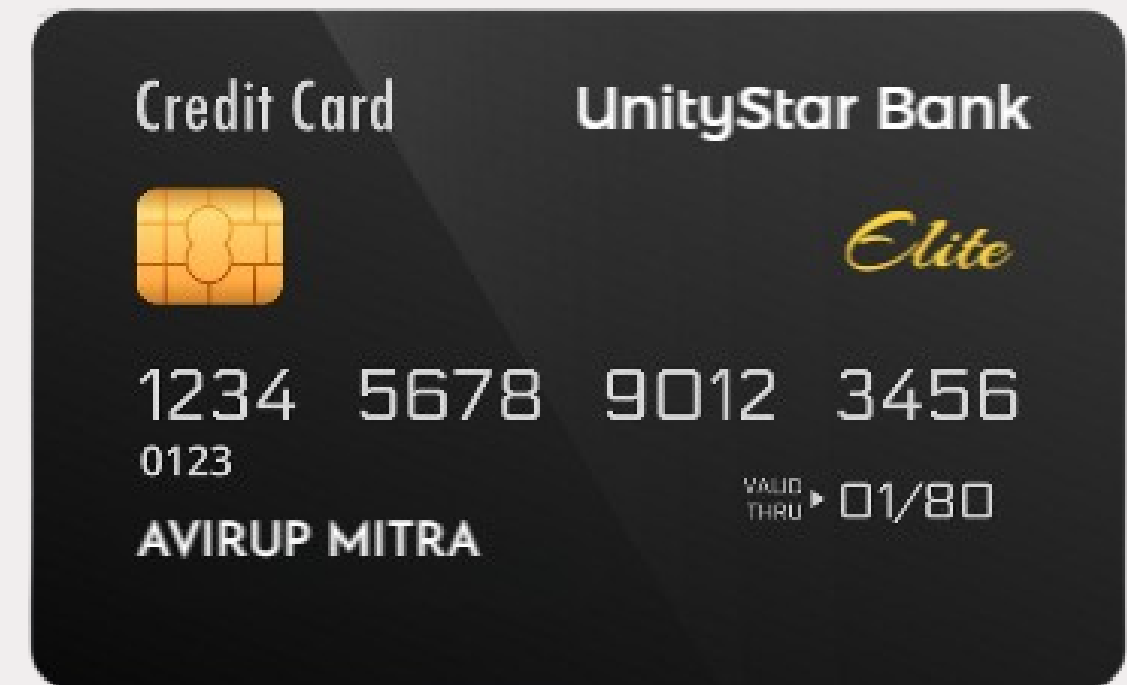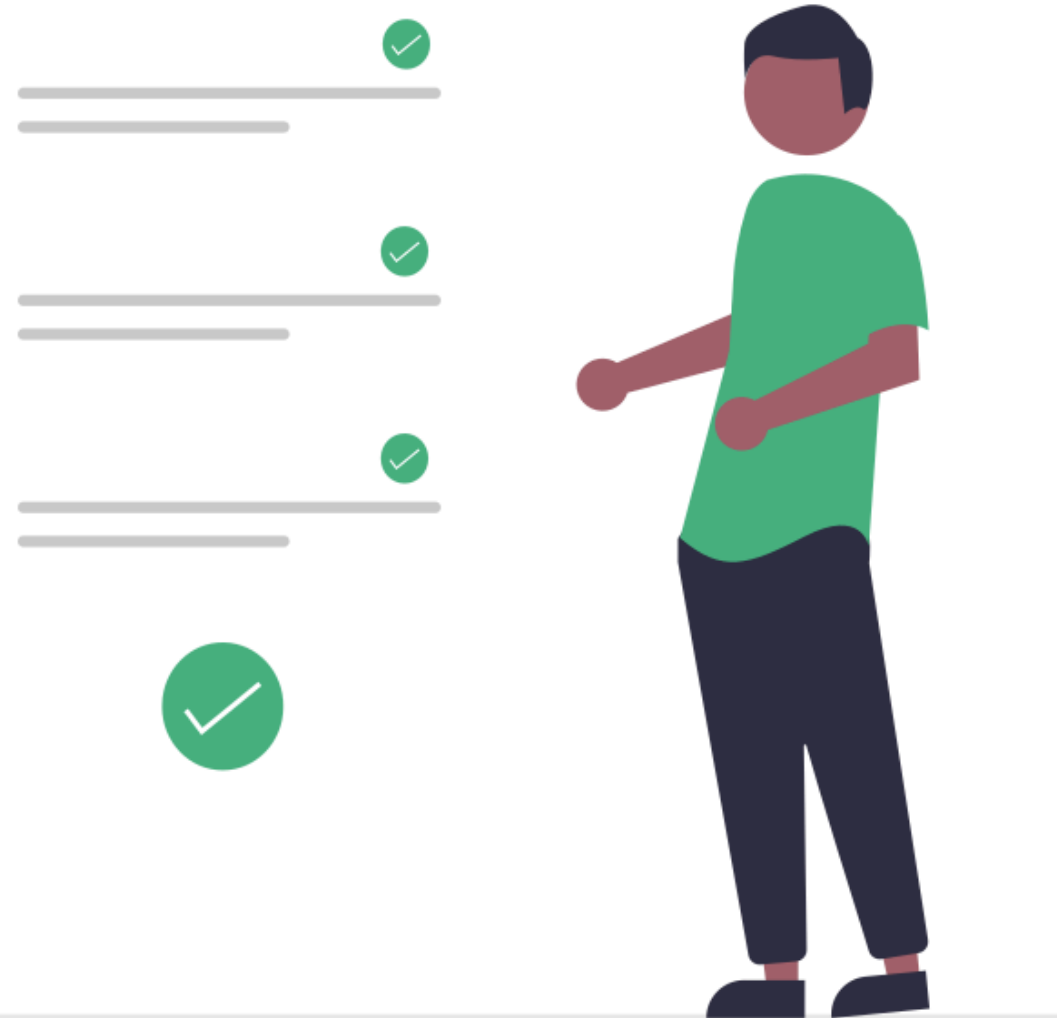
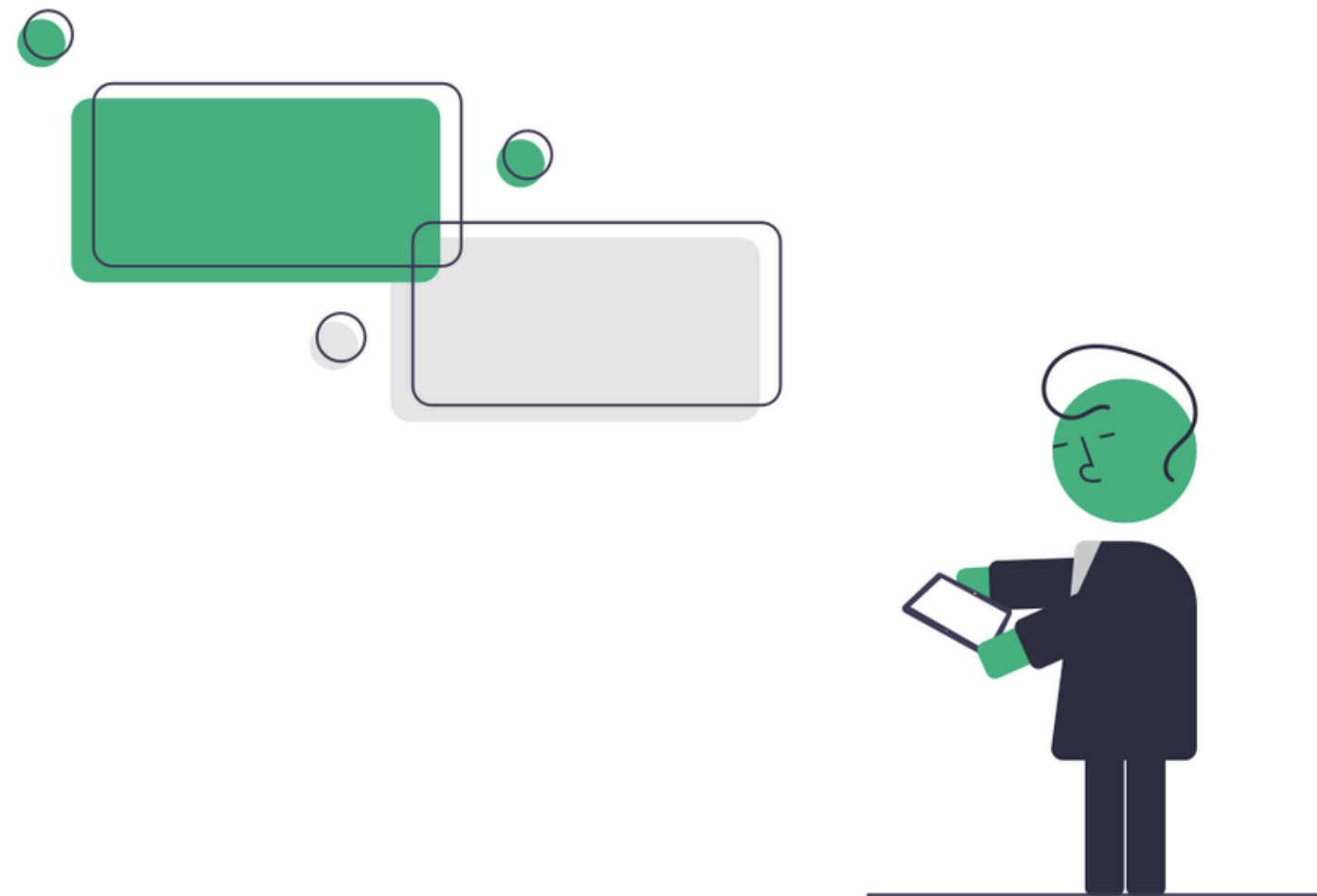UnityStar Bank is a legacy financial institution headquartered in Hyderabad. They want to introduce a new line of credit cards, aiming to broaden its product offerings and reach in the financial market.

PROBLEM STATEMENT

The Manager of the Bank wants to understand the Customers' demographics, spending behavior and their income utilization trend along with the preferred payment method. The bank has given a data of 4000 customers to analyze.

- Prepare and Analyze the data of 4000 customers thoroughly.
- Create dashboard/report to display the KPIs.
- Produce insights after the proper analysis.
- Give recommendations to the bank management for the successful launch of the credit card

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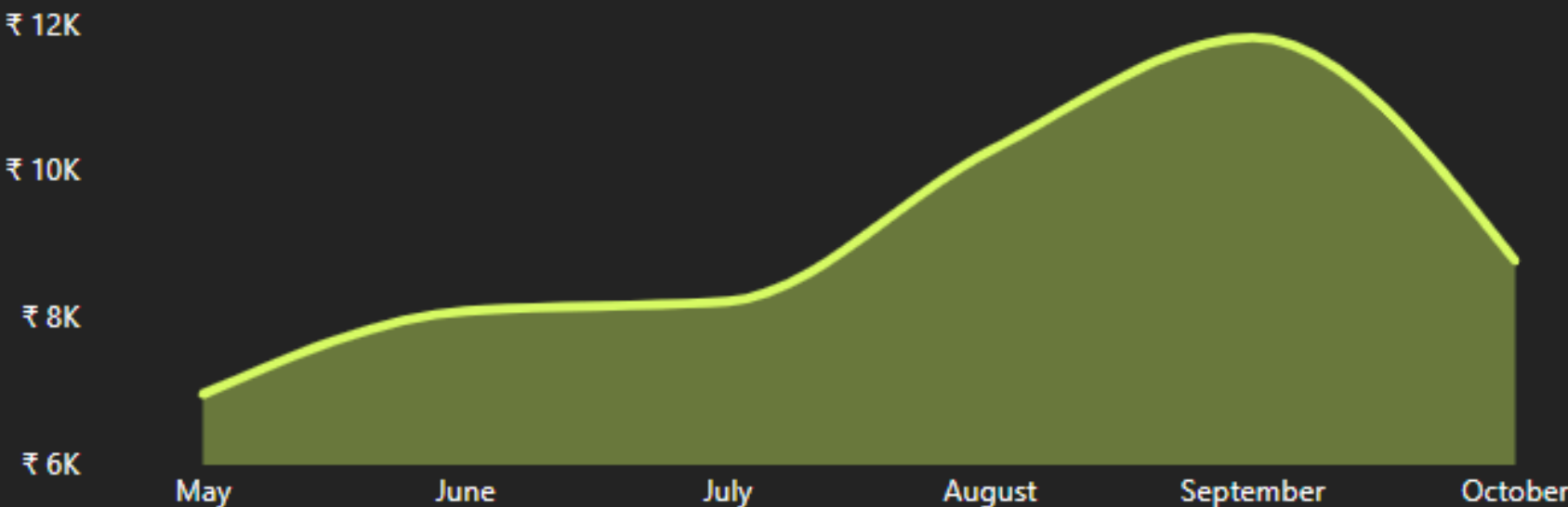**Dashboard** | Demographics | Spendings | Income Utilization

Avg. Credit card Utilization

40.74%

Credit card spendings : ₹ 216M

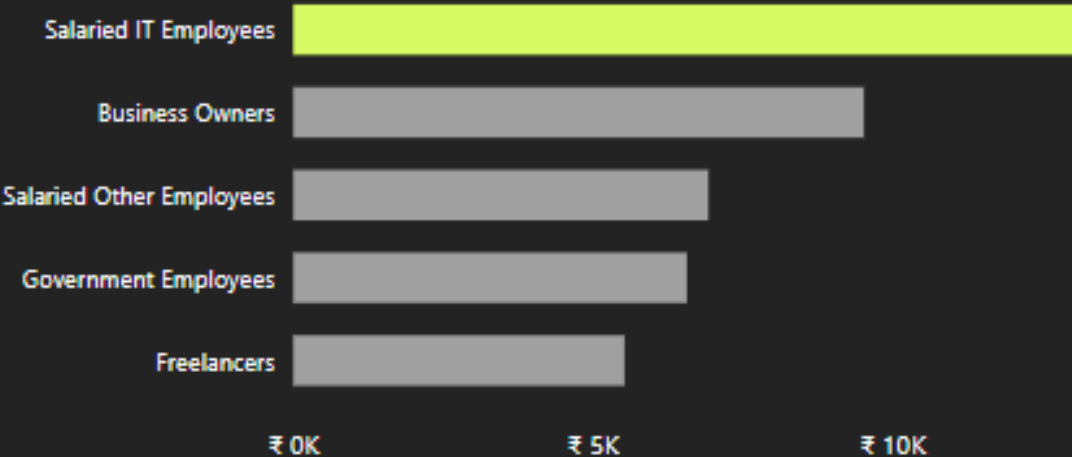Total spendings : ₹ 531M

Average Spending/Customer Trend

₹ 12K
₹ 10K
₹ 8K
₹ 6K

May | June | July | August | September | October

Avg. Income Utilization

17.45%

Spending/Month

₹ 9,013

Key Customer Segment

Age Group

25-34

Avg. Spend/month by Occupation (C.C)

- Salaried IT Employees
- Business Owners
- Salaried Other Employees
- Government Employees
- Freelancers

₹ 0K | ₹ 5K | ₹ 10K

City and Category-wise Income Utilization

	Apparel	Bills	Electronics	Entertainment	Food	Groceries	Health & Wellness	Others	Travel
Bengaluru	6.29%	21.63%	16.15%	7.86%	7.11%	12.64%	12.71%	3.14%	12.47%
Chennai	5.99%	22.00%	16.38%	7.29%	6.97%	12.81%	12.93%	3.17%	12.47%
Delhi NCR	6.39%	21.51%	16.21%	7.70%	7.09%	12.61%	12.85%	3.20%	12.44%
Hyderabad	6.17%	21.79%	16.44%	7.79%	7.04%	12.76%	12.75%	3.13%	12.13%
Mumbai	6.94%	20.82%	16.25%	8.41%	7.29%	12.28%	12.76%	3.15%	12.10%

Demographics

Age : [All ▾]   Marital Status : [All ▾]   Income : [All ▾]   Job : [All ▾]

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Dashboard | **Demographics** | Spendings | Income Utilization

City wise Customer Count based on income

● High ● Low ● Medium

City	400	200	0

Mumbai: 267, 328, 483
Chennai: 184, 264, 386
Bengaluru: 179, 259, 313
Delhi NCR: 180, 231, 333
Hyderabad: 158, 168, 267
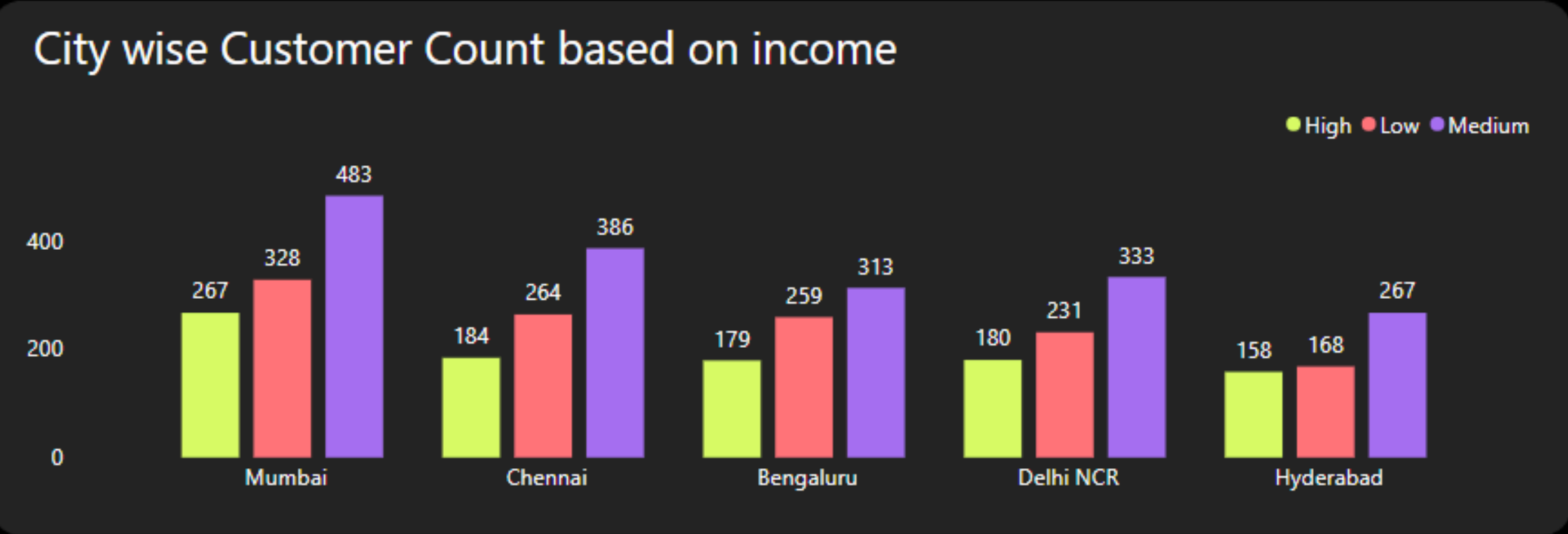
Average Income

₹ 51.66K

Total Customers

4000

● Male ● Female

Gender / Marital Status wise Proportion

1.4K (35.08%)

[Gender]

2.6K (64.93%)

Marital Status
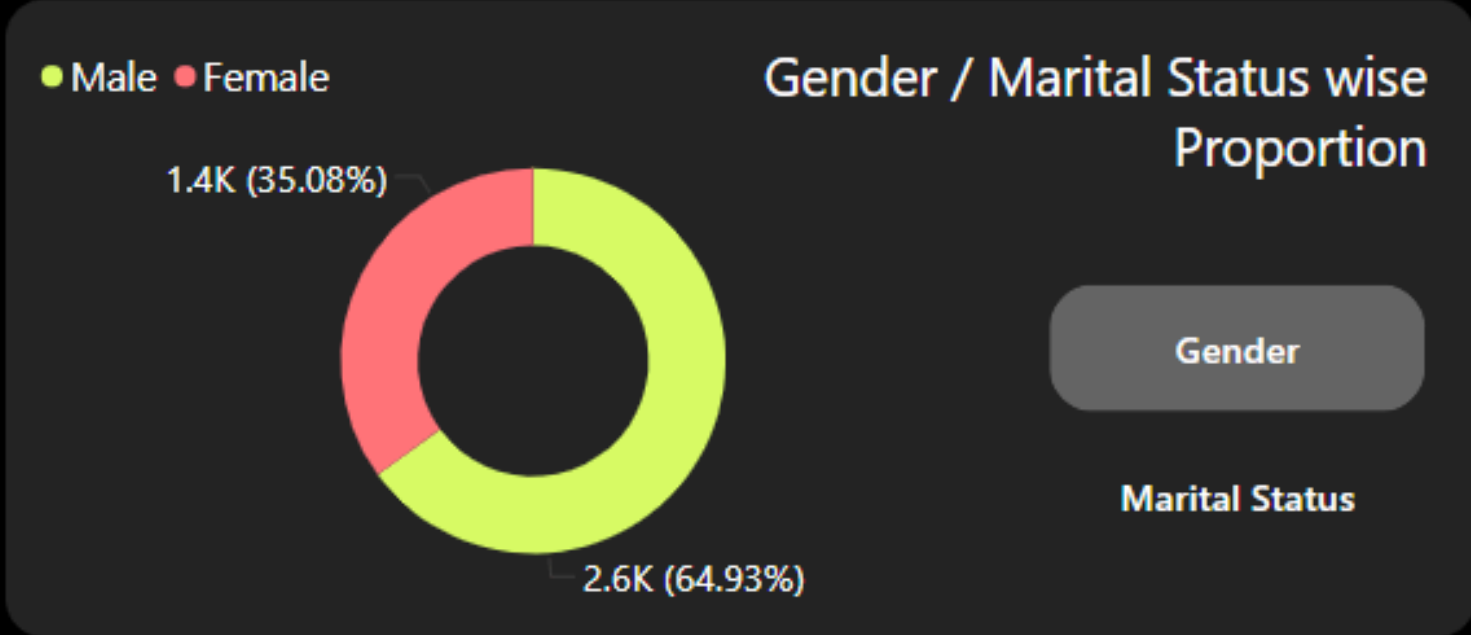
City wise Customer Count based on Occupation

[Customer Count] [Avg Income]

▲	Bengaluru	Chennai	Delhi NCR	Hyderabad	Mumbai
Business Owners	115	115	113	102	185
Freelancers	191	151	136	118	188
Government Employees	76	92	67	64	100
Salaried IT Employees	226	257	259	188	364
Salaried Other Employees	143	219	169	121	241

Age Group / Income Category wise Proportion

● 25-34 ● 35-45 ● 21-24 ● 45+

0.69K (17.28%)   0.54K (13.45%)

[Age Group]

1.27K (31.83%)

Income Group

1.5K (37.45%)

Spending Analysis

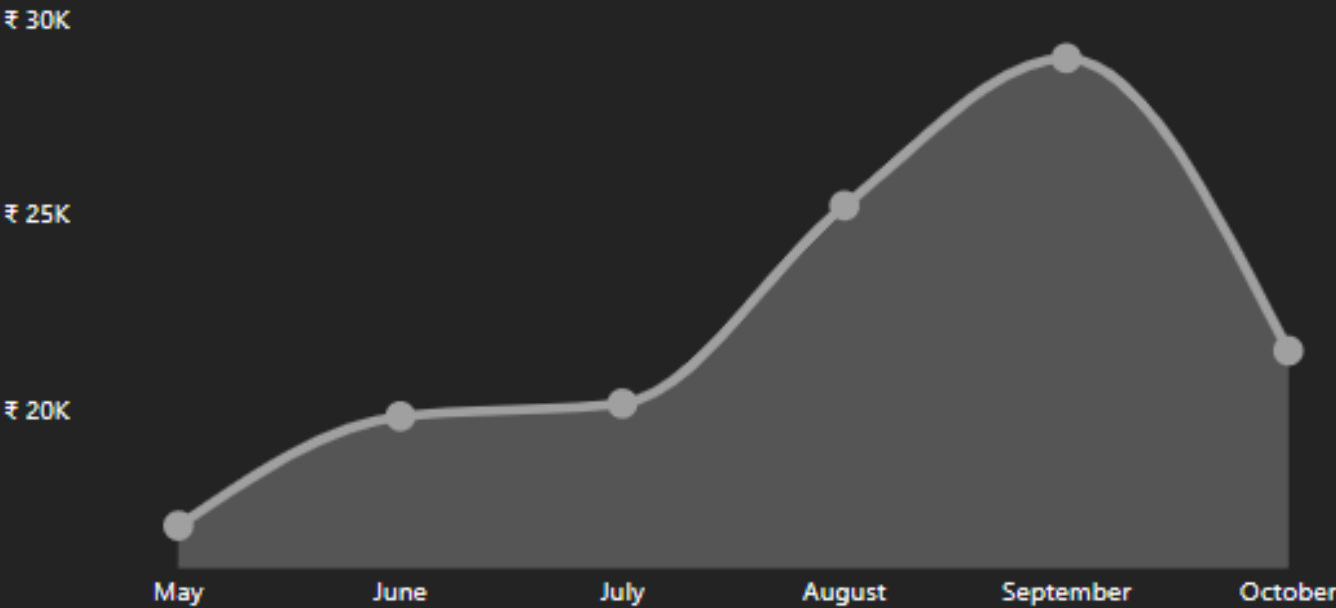**Income :** All **Age :** All **City :** All **Job :** All
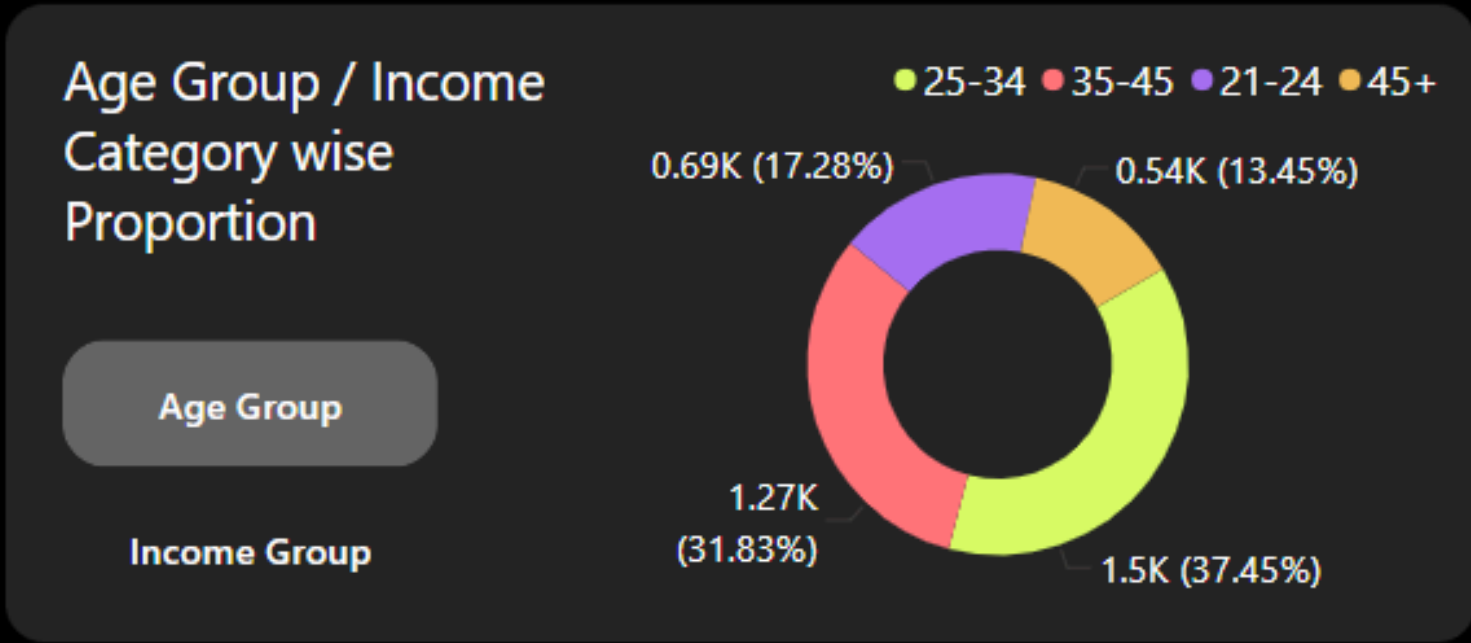
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Dashboard Demographics **Spendings** Income Utilization

Average Spending per Month

₹ 30K

₹ 25K

₹ 20K

May June July August September October

Avg. Spending P.M & Payment Method Usage

10.21%

22.52%

Avg. Spending P.M.

₹ 22K

40.74%

26.53%

● Credit Card ● UPI ● Debit Card ● Net Banking
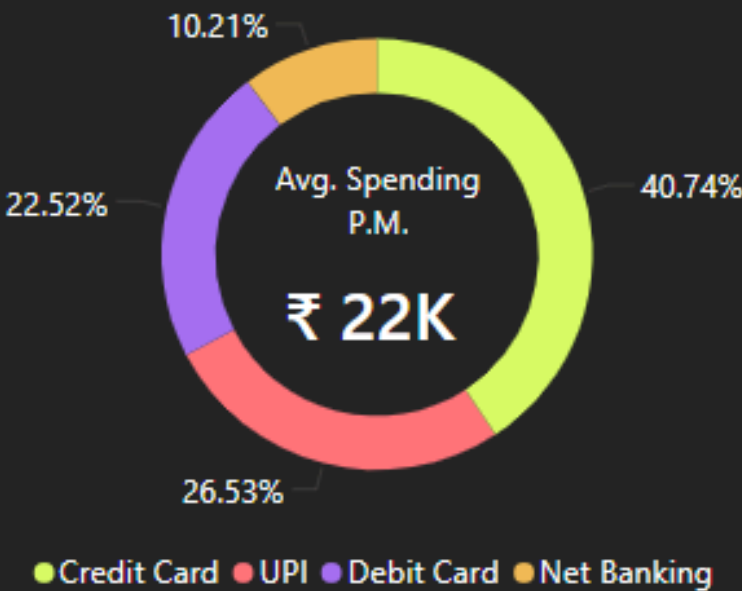
Average Spending per Month based on Gender and Marital Status
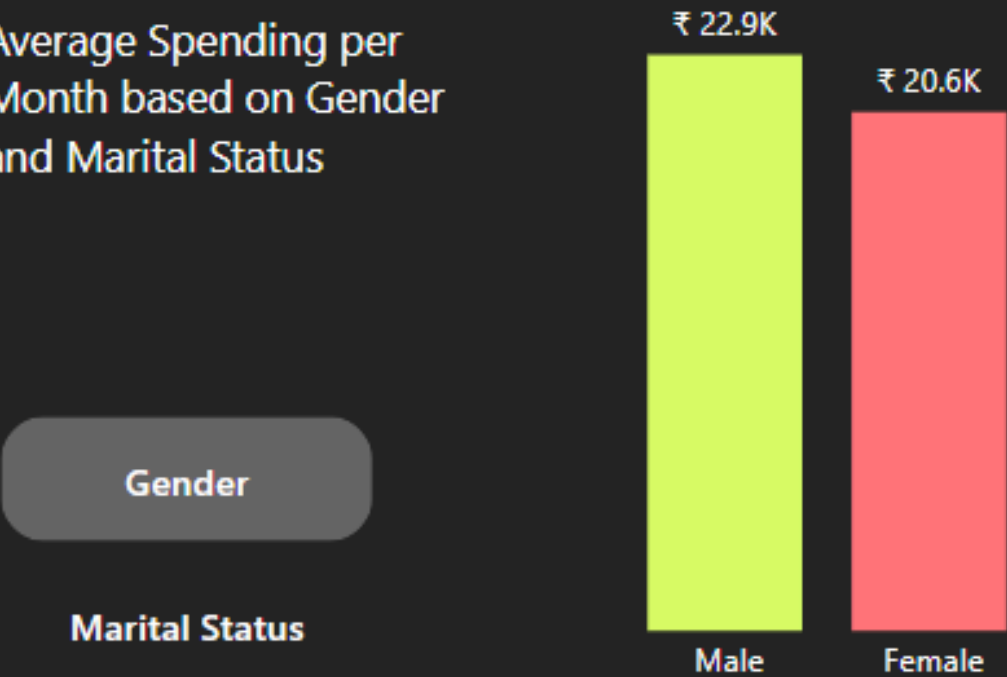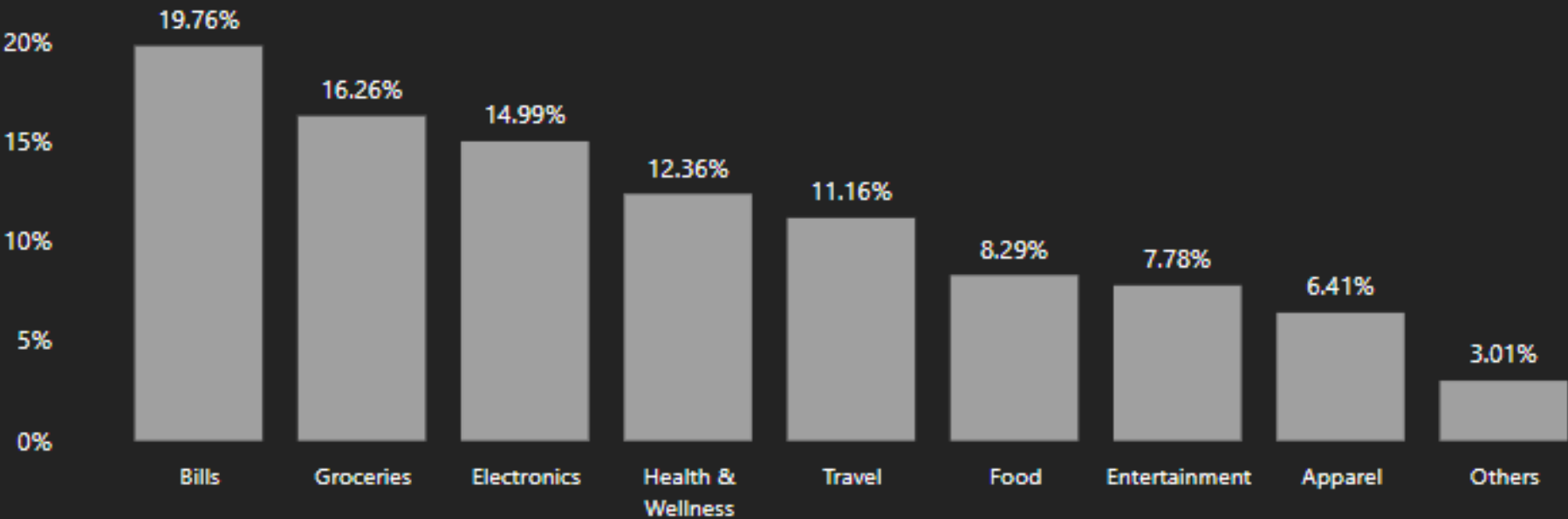
₹ 22.9K

₹ 20.6K

Gender

Marital Status

Male Female

Average Spending P.M by Occupation, Age, Income

20% 19.76%

16.26%

14.99%

15% 12.36%

11.16%

10% 8.29% 7.78%

6.41%

5% 3.01%

0%

Bills Groceries Electronics Health & Wellness Travel Food Entertainment Apparel Others

Average Spending P.M by Occupation, Age, Income

	21-24	25-34	35-45	45+
Business Owners	₹ 16,879	₹ 24,054	₹ 26,692	₹ 22,380
Freelancers	₹ 11,520	₹ 16,342	₹ 17,646	₹ 15,340
Government Employees	₹ 10,791	₹ 15,816	₹ 16,848	₹ 14,847
Salaried IT Employees	₹ 22,781	₹ 32,643	₹ 36,065	₹ 29,712
Salaried Other Employees	₹ 11,681	₹ 16,876	₹ 18,441	₹ 15,531

Age Group

Income Group

Income Utilization

Income : All | **Age :** All | **Payment :** All | **Job :** All

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Dashboard   Demographics   Spendings   **Income Utilization**

Avg Income Utilization % Trend

42.82%
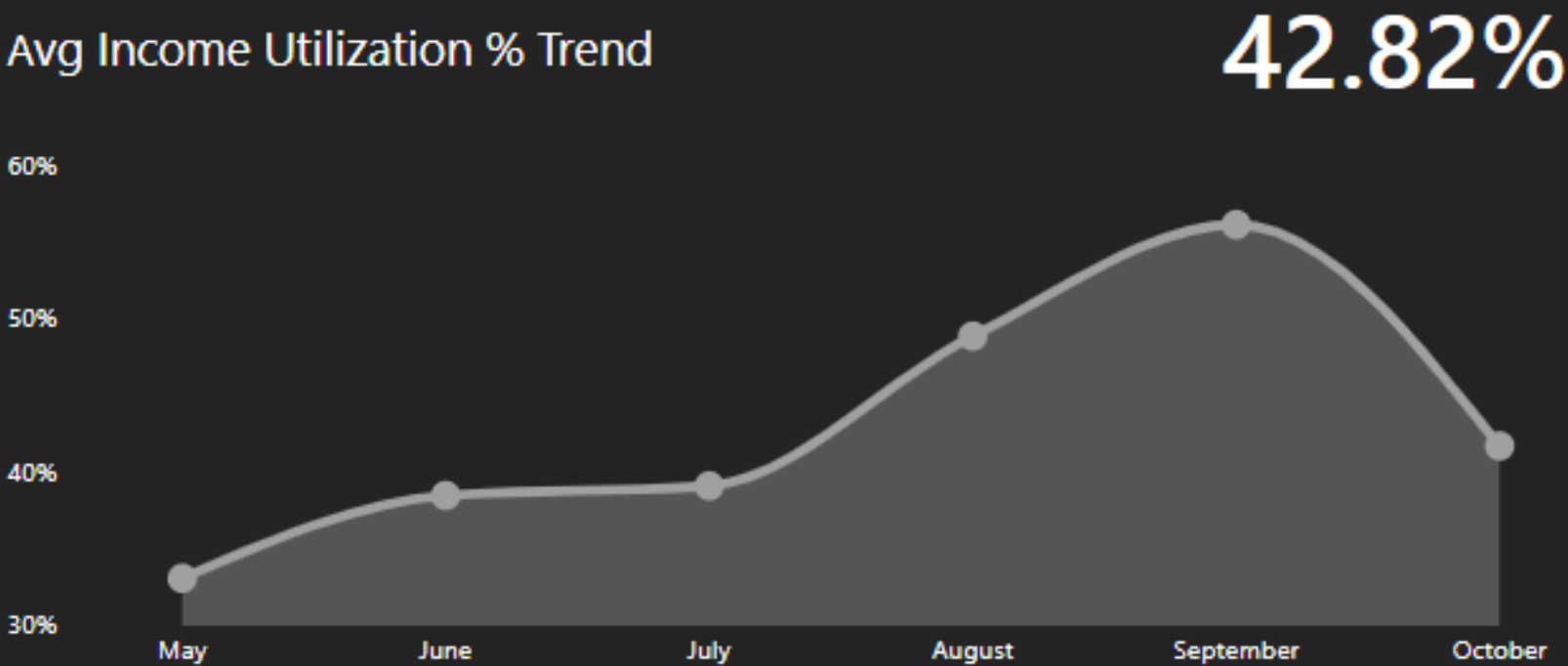
Avg Income Utilization % based on Age, Gender, Income and Occupation **City Wise**

Occupation	Bengaluru	Chennai	Delhi NCR	Hyderabad	Mumbai
Business Owners	33.31%	24.18%	36.84%	28.32%	39.30%
Freelancers	46.65%	33.55%	51.14%	39.57%	55.04%
Government Employees	29.93%	21.47%	32.17%	25.55%	35.38%
Salaried IT Employees	51.77%	36.88%	56.33%	42.88%	61.40%
Salaried Other Employees	43.29%	30.65%	47.35%	36.69%	51.09%

Avg Income Utilization % based on Age, Gender, Income and Occupation

● Avg. spending per month ● Average of avg_income ● Avg income utilisation %
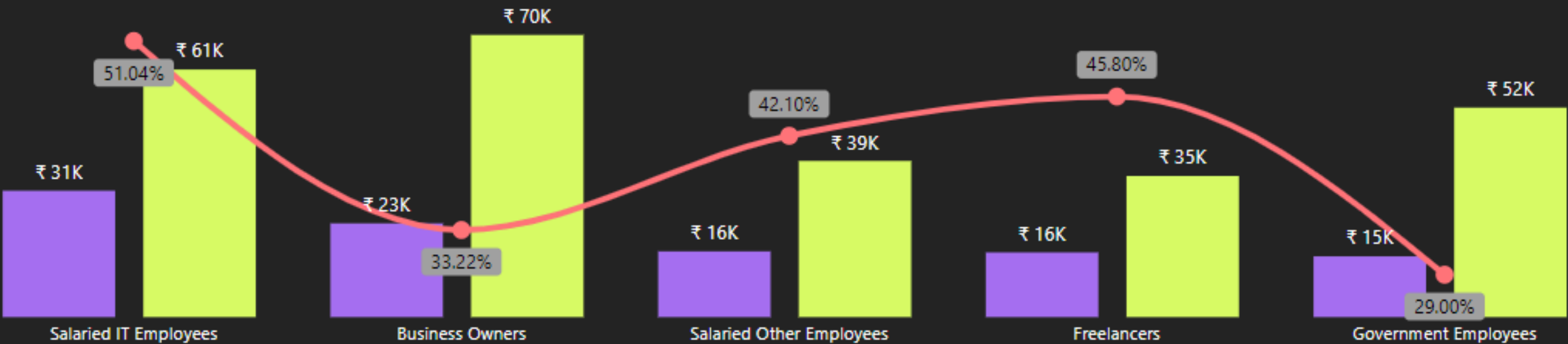
Age Group

Gender

Income Group

Occupation

KEY INSIGHTS

Demographics

- 65% of the customers are Male.
- 78% of the customers are married
- Almost 70% customers are aged between 25-45 years. (Where 25-34 years are 37.45% and 34-45 years are 31.83%).
- Mumbai comprises 27% of total customers, the highest among the 5 cities.
- 45% of the customers are from medium-income category having income between 40000 to 65000 rupees per month.
- Business owners are having highest average income (average 70k per month).

Spendings

- Highest spending is done in September.
- On an average most money is spent on paying bills and buying groceries overall.
- IT employees spend most money/month compared to others.
- Customers in 35-45 age group are overall highest spenders and customers in 25-34 age group spend the most through credit card
- Credit card is mostly used as payment method (avg of 40.74%)
- Only the youngest customers (age group 21-24 years) use UPI more over credit card.
- Customers from Mumbai spend more money per month on an average.
- Female customers spend most money for Health and Wellness, whereas male customers spend the most in bills.
- Married customers spend most money on paying bills whereas the single customers spend most money on electronics.
- Customers in age group of 25-34 spend mostly on bills, electronics and travel through credit card.

KEY INSIGHTS

Income Utilization

- Average income utilization % is 42.82%.
- Salaried IT employees are the front runners in terms of income utilization (approx. 51%) whereas govt. employees utilize at lowest rate (approx. 29%).
- Customers who fall under the age group of 35-45 years utilize the income at highest rate.
- Income utilization through Credit card is the highest (17.45%).
- Utilization through credit card is highest among the customers who are in Medium income category / IT employee / in 25 – 35 years age group

RECOMMENDATION
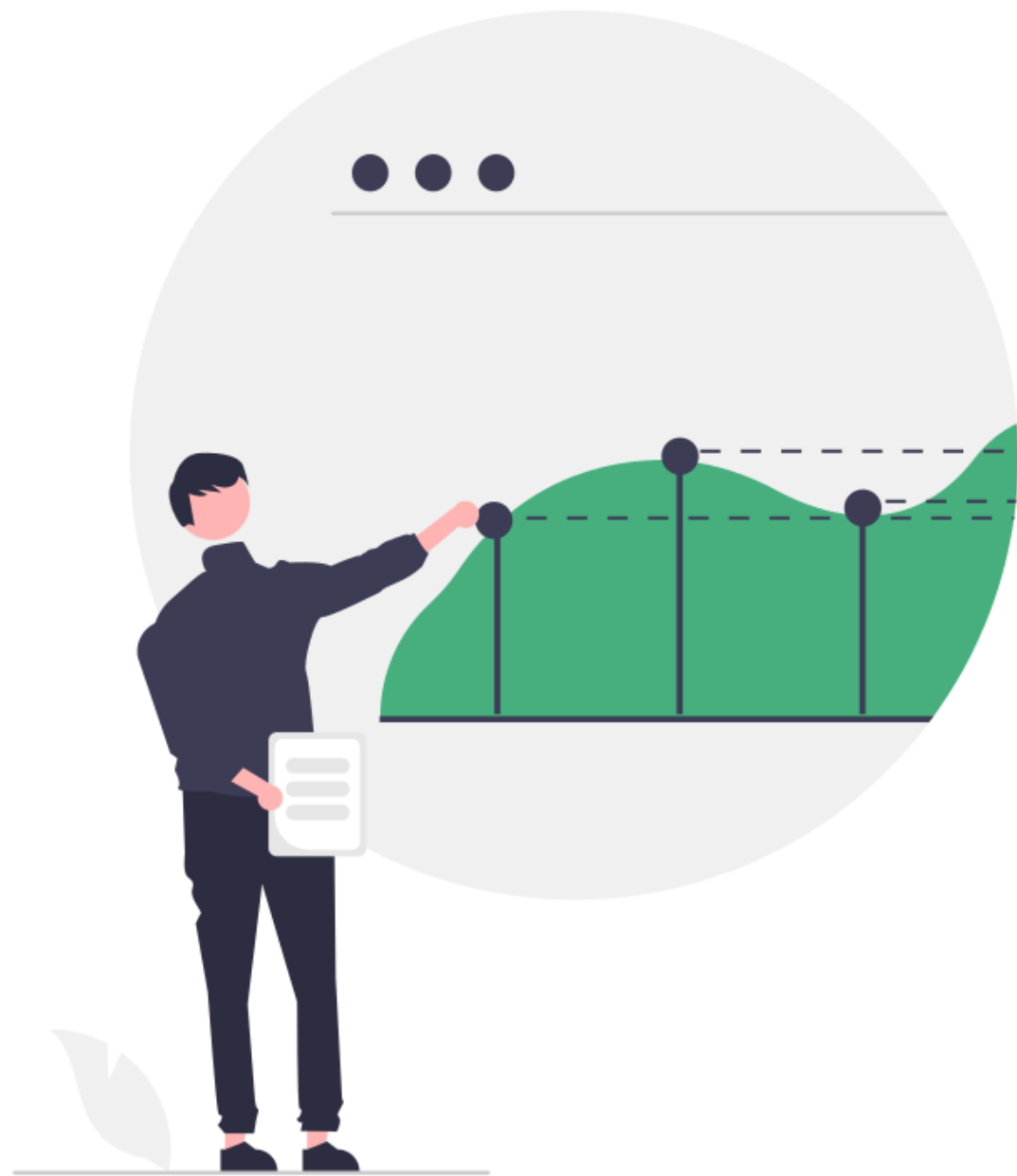
- We observed that youngest customers prefer UPI over credit card. Educating about the benefits of using credit cards and providing exciting rewards / cashbacks for transactions due to entertainment, electronics and for purchasing apparel is recommended.
- Tailor the credit card to provide enhanced convenience and rewards for health insurance purchase.
- Enhanced cashback or rewards for bill payments, grocery purchase through credit cards is recommended.
- As customers in age group of 25-34 use the credit most so partnering with online brand of electronics, clothing and sponsor their sale for exclusive rewards for credit cards and special rewards for travel related purchases like hotel or ticket bookings can be beneficial.
- Most of the customers are married, and income utilization is highest among the customers of age group of 35-45 years, therefore giving bonus convenience for family-oriented insurance plans and travel plans is beneficial.
- Considering the fact that most of the customers are from low-income category it is recommended to keep the annual charges minimal or remit the charges as per convenience (if possible) and adjust the interest rates accordingly so that it suits the financial ability of the customers.
- September is the month close to festivals and average spending is also high so festive related offers and discounts on credit card exclusively is beneficial.
- IT employees use the credit card most so giving special benefit for IT related purchases for example Computer, Software, and Courses will be good.

CONCLUSION

We did thorough analysis after cleaning and preprocessing the data and produced some important insights and also produced some recommendations based on those insights. We hope the bank will be able to make their new line of credit cards successful and achieve targets through leveraging the given recommendations.