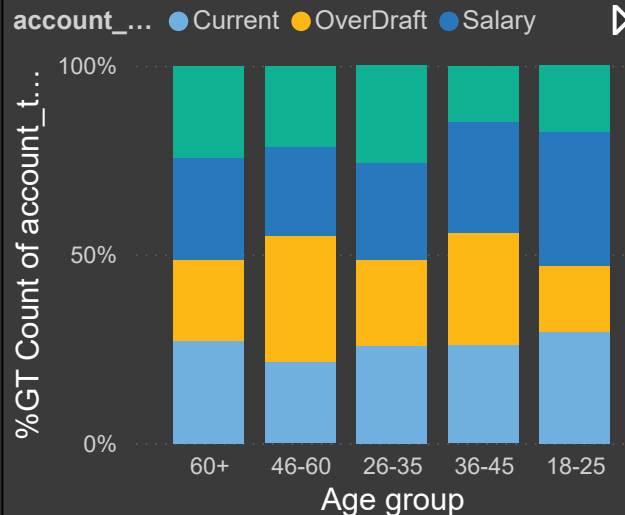


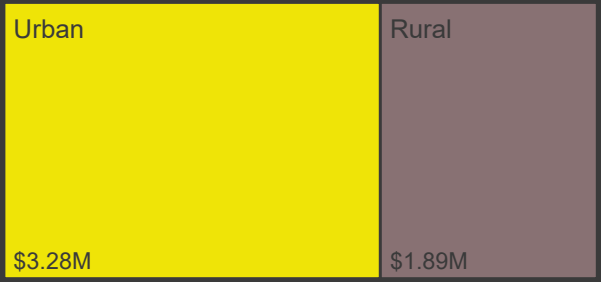
Analysis of Banking Operations

Shubham Shende

Distribution of account types across different age groups

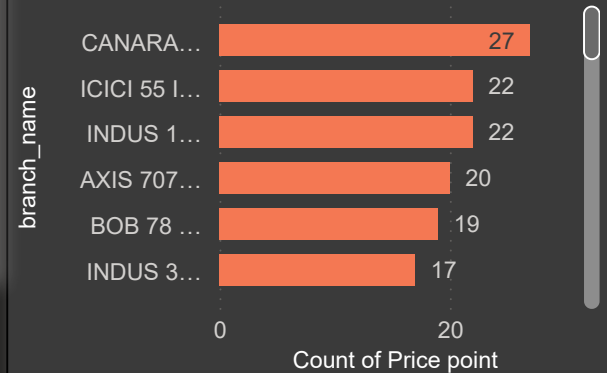


Total transaction amounts for branches in urban vs. rural areas



Age group	Transaction Count
18-25	164
26-35	356
36-45	289
46-60	418
60+	781
Total	2008

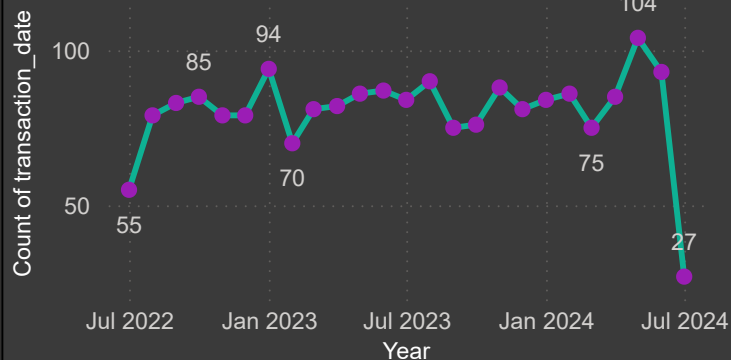
Branches have the highest frequency of high-value transactions



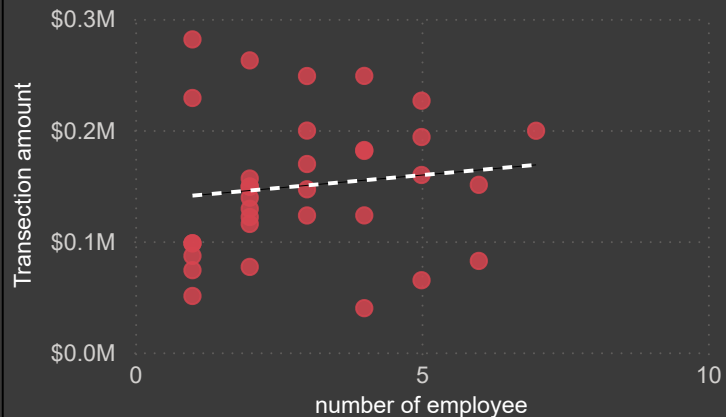
Average balance of customers with multiple account types

\$11.5K

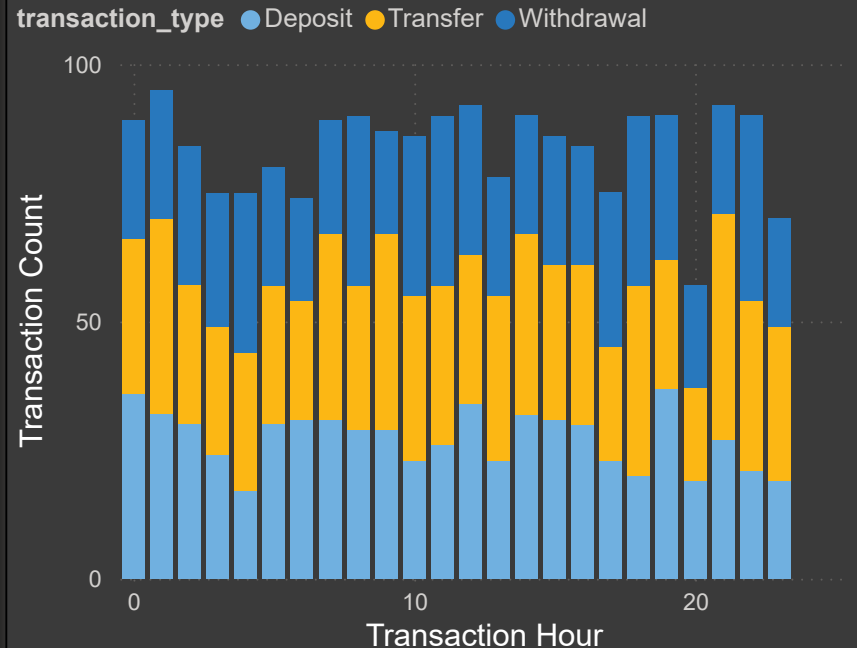
The number of transactions vary over a month



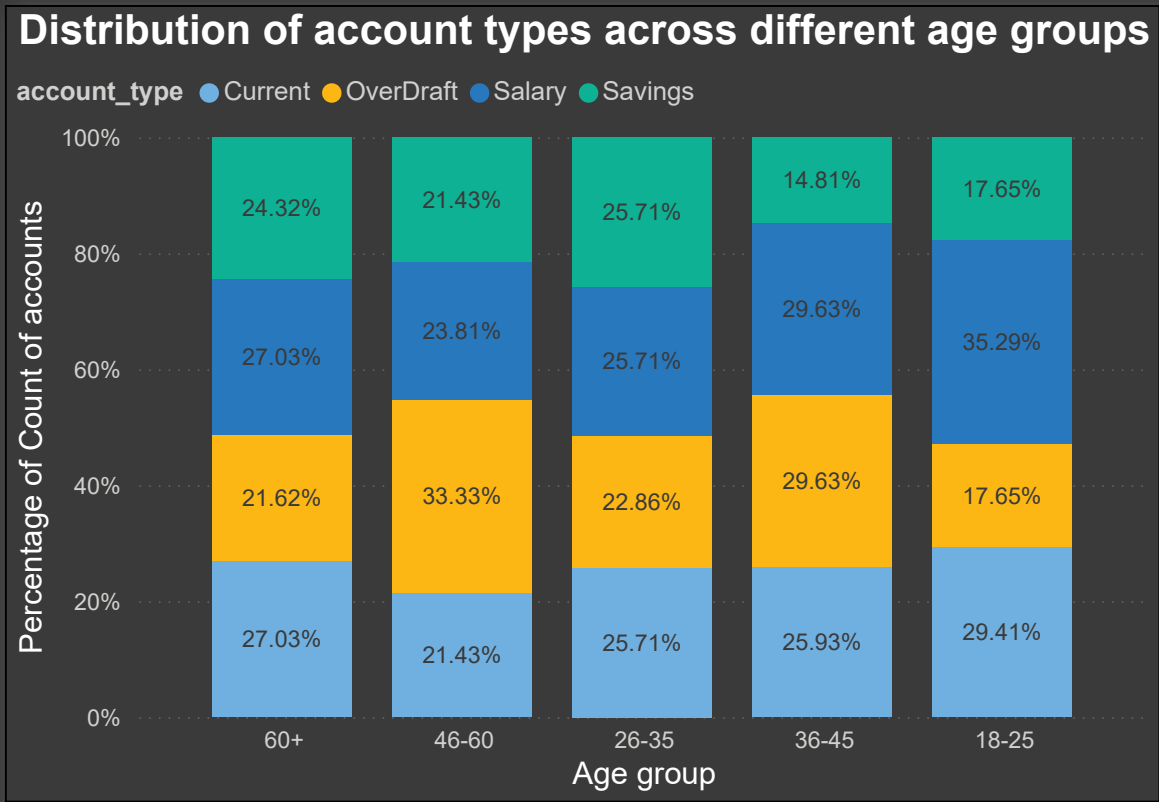
number of employee and Transection amount



Transaction Count by Transaction Hour and transaction_type



Hypothesis: Customers of different age groups prefer different types of accounts (e.g., Savings, Current, Salary, OverDraft).



Findings

- The 18-25 age group prefers Salary accounts the most.
- The 26-35 age group shows a equal preference for all accounts.
- The 36-45 age group shows a less preference for saving accounts.
- The 46-60 age group shows a high preference for over draft accounts.
- The 60+ age group have maximum current and salary accounts.
- There is significant difference in number of accounts for age groups.

Age group	account_type	Count of account_type
18-25	Current	5
18-25	OverDraft	3
18-25	Salary	6
18-25	Savings	3
26-35	Current	9
26-35	OverDraft	8
26-35	Salary	9
26-35	Savings	9
36-45	Current	7
36-45	OverDraft	8
36-45	Salary	8
36-45	Savings	4
46-60	Current	9
46-60	OverDraft	14
46-60	Salary	10
46-60	Savings	9
60+	Current	20
60+	OverDraft	16
60+	Salary	20
60+	Savings	18
Total		195

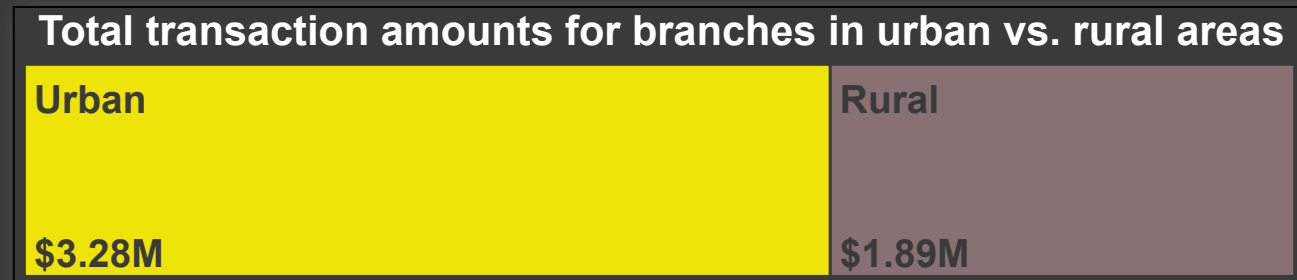
account_type	Count of account
Current	50
OverDraft	49
Salary	53
Savings	43
Total	195

Age group	Count of account
18-25	17
26-35	35
36-45	27
46-60	42
60+	74
Total	195

Summary

In our analysis, we found distinct preferences for account types among different age groups. Young adults (18-25) predominantly prefer Salary accounts, while 36-45 age group shows a less preference for saving accounts. The 26-35 age group shows a equal preference for all accounts. There is significant difference in number of accounts for age groups.

Hypothesis: Branches located in urban areas have higher total transaction amounts compared to branches in rural areas.



branch_location	Sum of amount
Rural	\$18,90,797.49
Urban	\$32,80,902.71
Total	\$51,71,700.2

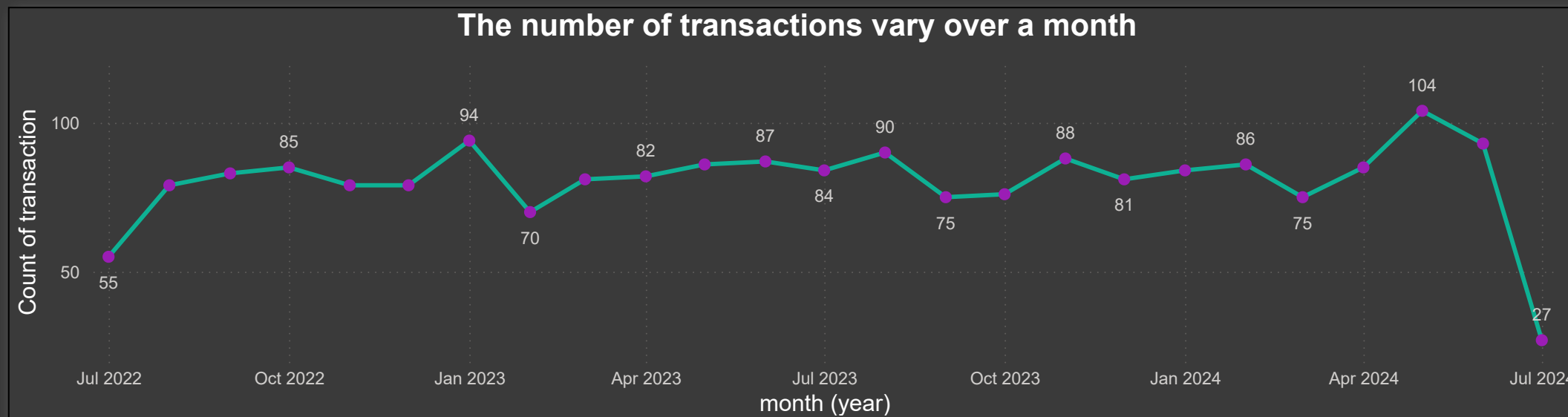
Findings

- The branches of urban areas have the total amount of transections is \$ 3.28M
- The branches of rural areas have the total amount of transections is \$ 1.89M

Summary

In our analysis, we found total transection amount for branches in Urban area is larger than rural area.

Hypothesis: There is a significant increase in the number of transactions at the beginning and end of the month. 🇮🇹



Findings

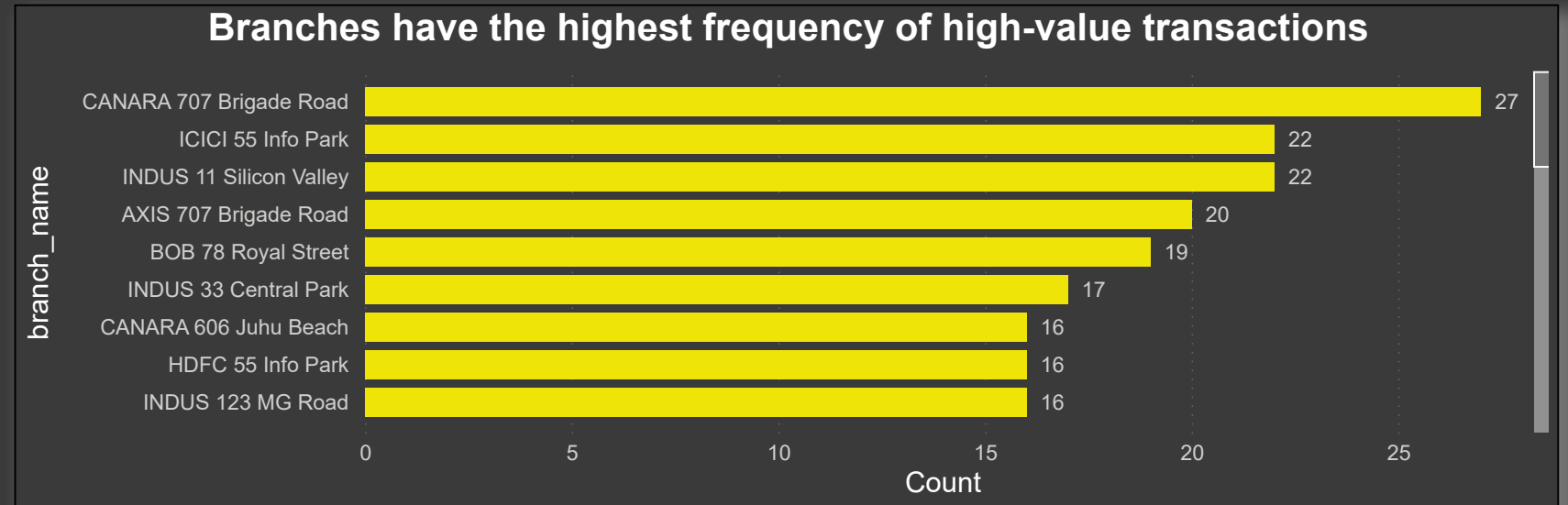
- As time goes we can clearly see that count of transections is increased except last month of 2024.

Summary

In our analysis, we found there is a significant increase in the number of transactions at the beginning and end of the month.

branch_name	Price point	Count
UBI 12 Green Avenue	High	2
SBI 606 Juhu Beach	High	4
BOB 11 Silicon Valley	High	5
UBI 22 Industrial Area	High	5
PNB 505 Hitech City	High	6
SBI 34 Hill Road	High	6
AXIS 404 Connaught Place	High	7
INDUS 101 Residency Road	High	7
SBI 55 Info Park	High	7
BOB 101 Residency Road	High	8
ICICI 707 Brigade Road	High	8
KMB 101 Residency Road	High	9
PNB 78 Royal Street	High	9
PNB 44 Cyber City	High	11
BOB 123 MG Road	High	12
KMB 123 MG Road	High	12
UBI 11 Silicon Valley	High	12
AXIS 12 Green Avenue	High	13
BOB 202 Nehru Place	High	13
KMB 707 Brigade Road	High	13
KMB 505 Hitech City	High	14
HDFC 303 Banjara Hills	High	15
ICICI 22 Industrial Area	High	15
ICICI 56 Lake View	High	15
UBI 456 Park Street	High	15
CANARA 606 Juhu Beach	High	16
HDFC 55 Info Park	High	16
INDUS 123 MG Road	High	16
INDUS 33 Central Park	High	17
BOB 78 Royal Street	High	19
AXIS 707 Brigade Road	High	20
ICICI 55 Info Park	High	22
INDUS 11 Silicon Valley	High	22
CANARA 707 Brigade Road	High	27
Total		418

Hypothesis: High-value transactions (amounts above a certain threshold \$4000) are more frequent in certain branches. 💰



If transection amount is greater than \$ 4000 then it is high value transection.

Findings

- The branch CANARA 707 Brigade Road have highest frequency of high value transection and UBI 12 Green Avenue have lowest frequency of high value transection.
- The total high value transections are 418.

Summary

The out of total 2008 transections there are only 418 transections are high value transections. The branch CANARA 707 Brigade Road have highest frequency of high value transection.

Hypothesis: Customers with multiple account types have higher overall balances.

57

count of account for having multiple acc

\$832.33K

Total balance for having multiple acc

Multiple acc	no of customer	Sum of balance	Average
Yes	57	\$8,32,328.73	\$14,602.2584
No	31	\$1,79,576.93	\$5,792.8042
Total	88	\$10,11,905.66	\$11,498.928

Average balance of customers with multiple account types compared to those with a single account type

\$14.6K

Findings

- The are 57 customers having multiple accounts.
- The average balance for customers having multiple account is \$ 14.6 K and average balance for customers having single account is \$ 5.8 k

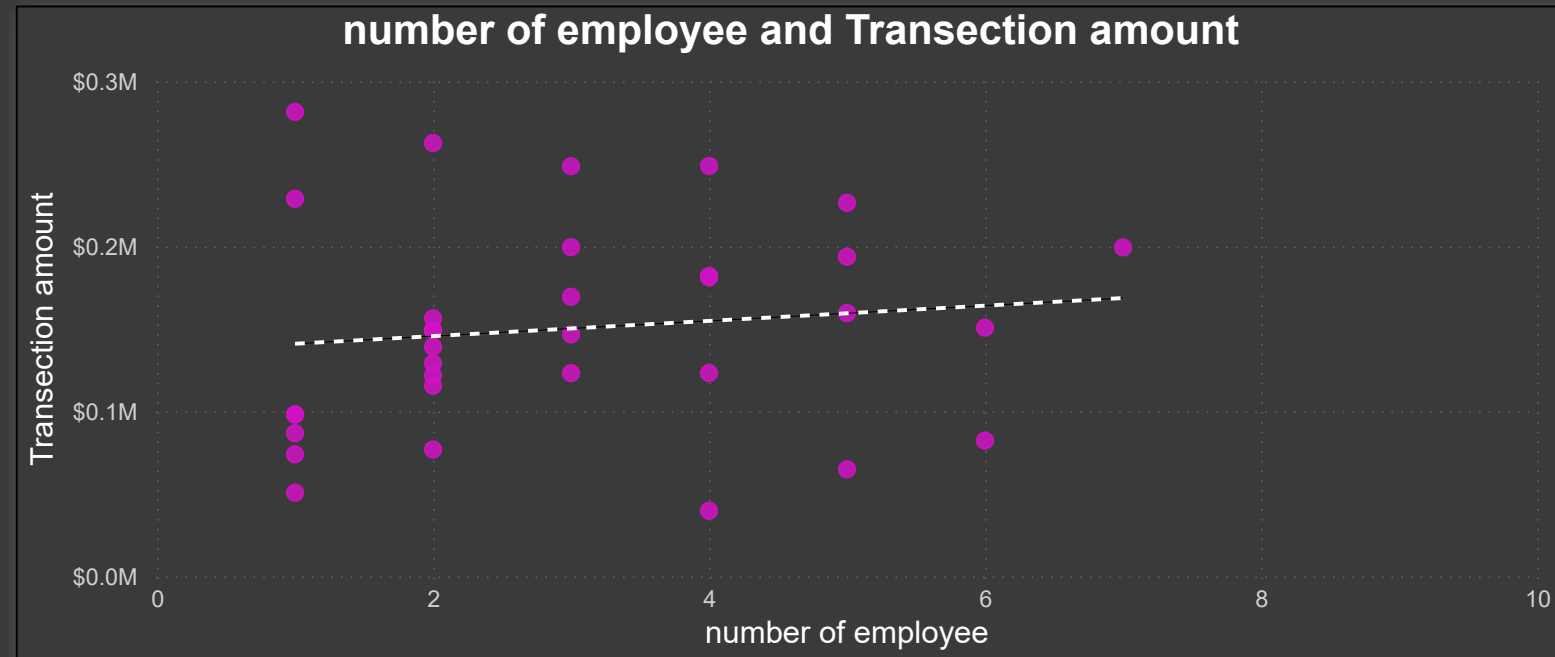
Summary

The average balance for customers having multiple account is \$ 14.6 K

number of employee Transection amount

1	\$50,696.65
1	\$73,904.74
1	\$86,749.27
1	\$98,014.55
1	\$98,179.45
1	\$2,28,833.49
1	\$2,81,543.71
2	\$76,842.33
2	\$1,15,504.03
2	\$1,21,721.63
2	\$1,29,147.65
2	\$1,39,133.03
2	\$1,49,085.02
2	\$1,49,112.43
2	\$1,56,357.73
2	\$2,62,658.46
3	\$1,23,139.9
3	\$1,46,678.65
3	\$1,69,429.82
3	\$1,99,496.95
3	\$2,48,596.3
4	\$39,727.14
4	\$1,23,188.65
4	\$1,81,198.29
4	\$1,82,028.78
4	\$2,48,701.7
5	\$64,858.79
5	\$1,59,560.59
5	\$1,93,704.26
5	\$2,26,386.15
6	\$82,220.61
6	\$1,50,698.21
7	\$1,99,351.46

Hypothesis: Branches with a higher number of employees handle a larger volume of transactions.



Findings

- As we increase number of employees then transection volume increases.

Summary

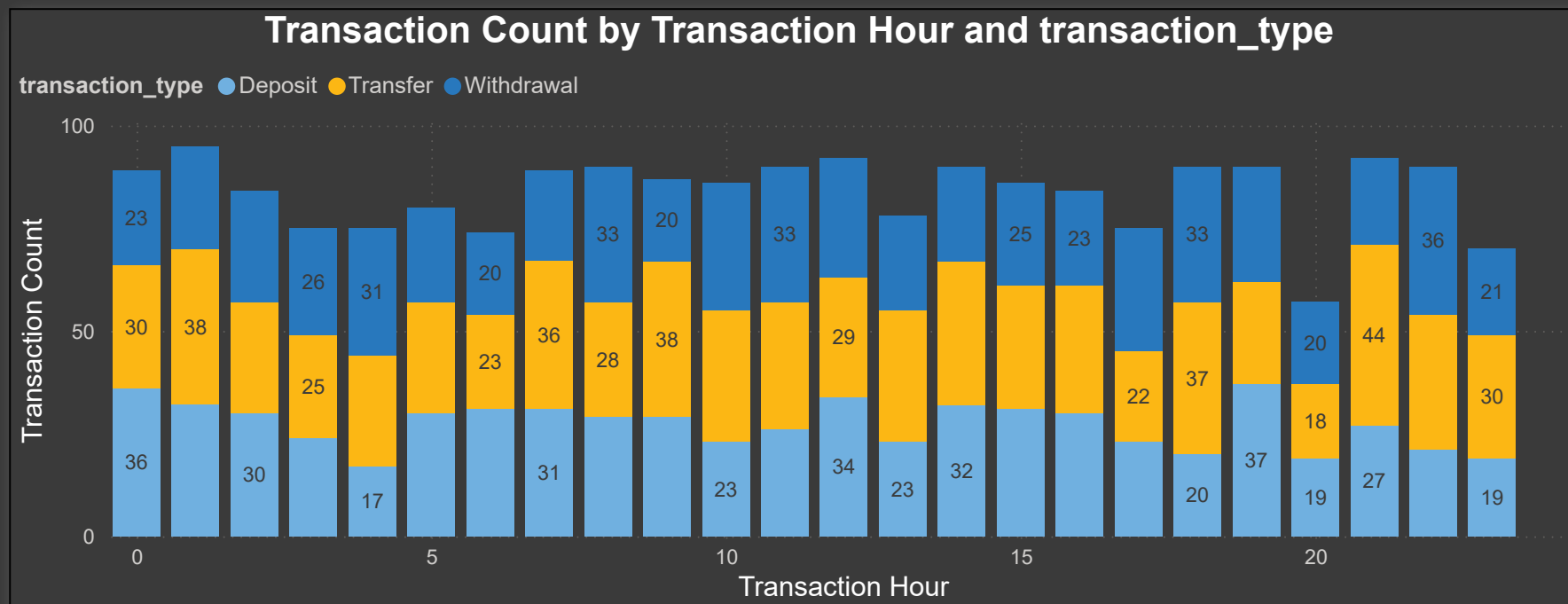
There is positive relationship between Transection volume and number of employees at branch.



transaction_type	Transaction Count
Deposit	654
Transfer	728
Withdrawal	626
Total	2008

Transaction Hour	Transaction Count
0	89
1	95
2	84
3	75
4	75
5	80
6	74
7	89
8	90
9	87
10	86
11	90
12	92
13	78
14	90
15	86
16	84
17	75
18	90
19	90
20	57
21	92
22	90
23	70
Total	2008

Hypothesis: Certain types of transactions (e.g., deposits, withdrawals, transfers) are more common at specific times of the day.



Findings

- In 20:00 to 21:00 there are lowest number of transactions
- There are maximum transactions in 7:00 to 13:00 continuously.
- There is highest frequency of transactions for "Transfer type".

Summary

In our analysis, the most common transaction type is "Transfer". "Deposit" and "Withdrawal" have near about same frequency.



Hypothesis: Younger customers (age 18-35) perform more transactions compared to older customers.

1488

Transaction Count age group 36+

520

Transaction Count age group 18-35

Age group	Transaction Count
18-25	164
26-35	356
36-45	289
46-60	418
60+	781
Total	2008

Findings

- Younger customers (age 18-35) perform 520 number of transections.
- Older customers (age 36+) perform 1488 number of transections.

Summary

Younger customers (age 18-35) perform less transactions compared to older customers.

Conclusions

- The distinct preferences for account types among different age groups. Young adults (18-25) predominantly prefer Salary accounts, while 36-45 age group shows a less preference for saving accounts. The 26-35 age group shows a equal preference for all accounts. There is significant difference in number of accounts for age groups.
- The total transection amount for branches in Urban area is larger than rural area.
- There is a significant increase in the number of transactions at the beginning and end of the month.
- The out of total 2008 transections there are only 418 transections are high value transections. The branch CANARA 707 Brigade Road have highest frequency of high value transection.
- The average balance for customers having multiple account is \$ 14.6 K
- There is positive relationship between Transection volume and number of employees at branch.
- The most common transaction type is "Transfer". " Deposit" and "Withdrawal" have near about same frequency.
- Younger customers (age 18-35) perform less transactions compared to older customers.