Task 1 – Exploratory Data Analysis

ANZ DATA@ANZ Program

Solutions By:
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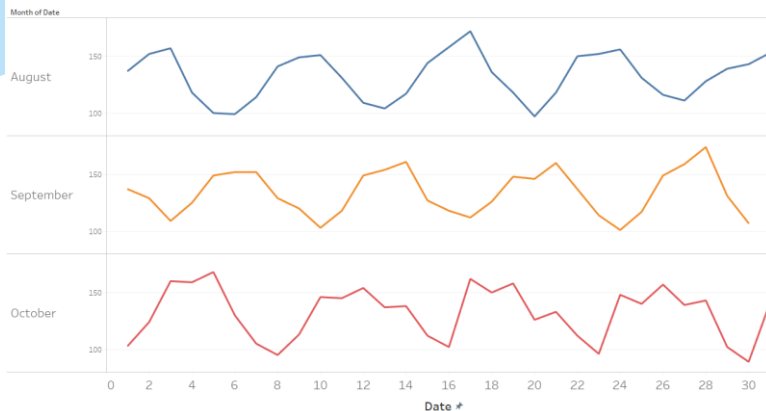
Data Issues

Column	Issues
card_present_flag	Blank values
bpay_biller_code	Blank values & lack of relevancy
merchant_id	Blank values
merchant_code	Blank values & lack of relevancy
merchant_suburb	Blank values
merchant_state	Blank values
extraction	Wrong format
merchant_long_lat	Blank values

Transaction Insights

Number of Transactions

Transaction Type Distributions

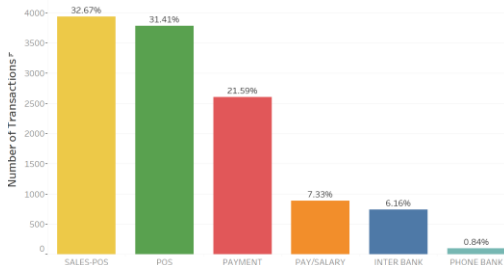## Gross Transaction Value By Transaction Types

12043
Transactions

187.93
Average of
Transactions Amount

- The number of transactions has a seasonal pattern, where the number of transactions peaks on Friday and has the lowest number on Monday

- Point of Sale transactions (POS and SALES/POS) are the most popular type of transaction, accounting for 64% of all transaction.

- Although Point of Sale transaction is the most popular transaction, the transaction with the highest amount is a Pay/Salary transaction
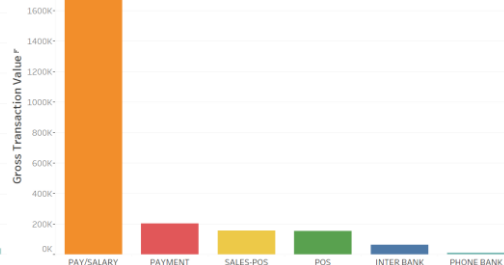
Customer Demographics

Customers Age Distributions

Customers Gender Distribution

Number of Customers
25   578

Female
Male

Male
52.188%

Female
47.812%
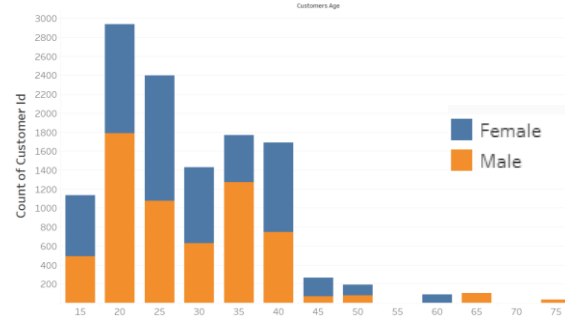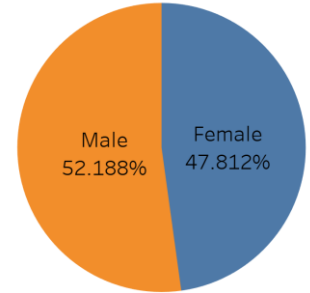
- Customers gender distribution is quite balanced

- The majority of customers were in the range of 20-45 years with an average of 31 years. This shows that most of the customers are of productive age, but also shows that the reach of elderly customers is still lacking

- Geographically, customers are spread across all states in australia, and are centered on the capital of their respective states

Merchant Demographics
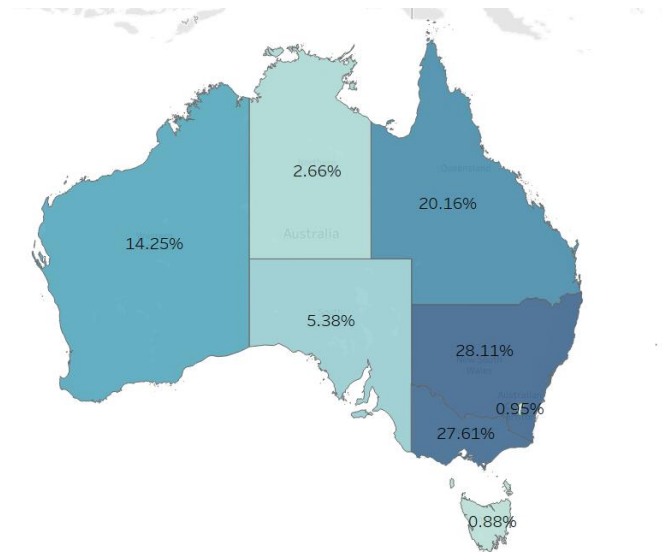
- Merchant information is not very analyzable because there are many blanks in the dataset

- Geographically, approximately 50% of merchants who make transactions are in New South Wales and Victoria

- Australian Capital Territory and Tanzania are the states with the least merchant in this transaction data (less than 1% of total transactions)

Conclusion

- Transaction data need to be corrected by completing blanks values and correcting the format for several columns, so that the analysis can be done well and can provide impactful insights to the organization

- ANZ needs to evaluate and improve the operation of its phone banking transactions, as it constitutes only 1% of the transactions in 3 month.

- ANZ needs to advertise its services even harder for elderly customers, whom usually have higher incomes and stronger spending power.

- ANZ can further expand the number of merchants in West and Central Australia to strengthen its presence

Additional Information

- Visualizations were created using **Tableau** and the report was put together using **Microsoft PowerPoint**

- GitHub: https://github.com/shidqiet

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