



INDUSTRY PROJECT

IS 4007 – STATISTICS IN PRACTICE II
GROUP 03 – TEAM TERZO

TIMELINE

Identifying
the
Business
Domain

Identifying
and Handling
unnecessary
data

Data
Preprocessing

Modeling
Data

Connecting
tables in
order to
achieve the
objectives

Fulfilling
objectives

Analyzing

Interim
Presentation

Describing
on going
work

Recommendations
and conclusions

To gain
maximum
performance
to the
company

Final
Presentation

Stating final
results
using the
dashboard

BUSINESS OVERVIEW

Different Telecommunication companies offer telecom services of different types. The services include voice, video, telephone, internet and communication services.

Services

Competitors

Telecommunication is the most competitive and fastest-growing market in the globe. Dynamic competition in telecom is produced by battle among companies to produce more reliable or more economical commodities.

Main
Revenue
Streams

Customers

Increase in data traffic will create highly utilized network enabling more people to consume and creating more revenue.

The telecommunication sector is made up of companies that make communication possible on a global scale, whether it is through the phone or the Internet, through airwaves or cables, through wires or wirelessly. These companies created the infrastructure that allows data in words, voice, audio, or video to be sent anywhere in the world.

Telecom companies gather different kinds of data to make sure their services answer customers' needs and to develop customer base.

Lte



OBJECTIVES



Finding the current operational gaps in order to provide the business with proper suggestions to enhance performance after a thorough region wise comparison of key performance indicators between the company and competitors.

- Identifying regional business performance and suspect behaviors.
- Identifying possible root causes for such behaviors.
- Delivering suggestions to regional managers to improve regional business performances.

DATA PREPROCESSING

1

Identifying and removing duplicates and missing values

Checked for duplicates in each data table and removed them.

2

Removing Unnecessary variables

Many variable columns which are not of use for analysis were removed from the tables.

3

Pivoting the text data file

Variable "Measure name" was pivoted using data in "Measure value" variable.

4

Appending data and Joining tables

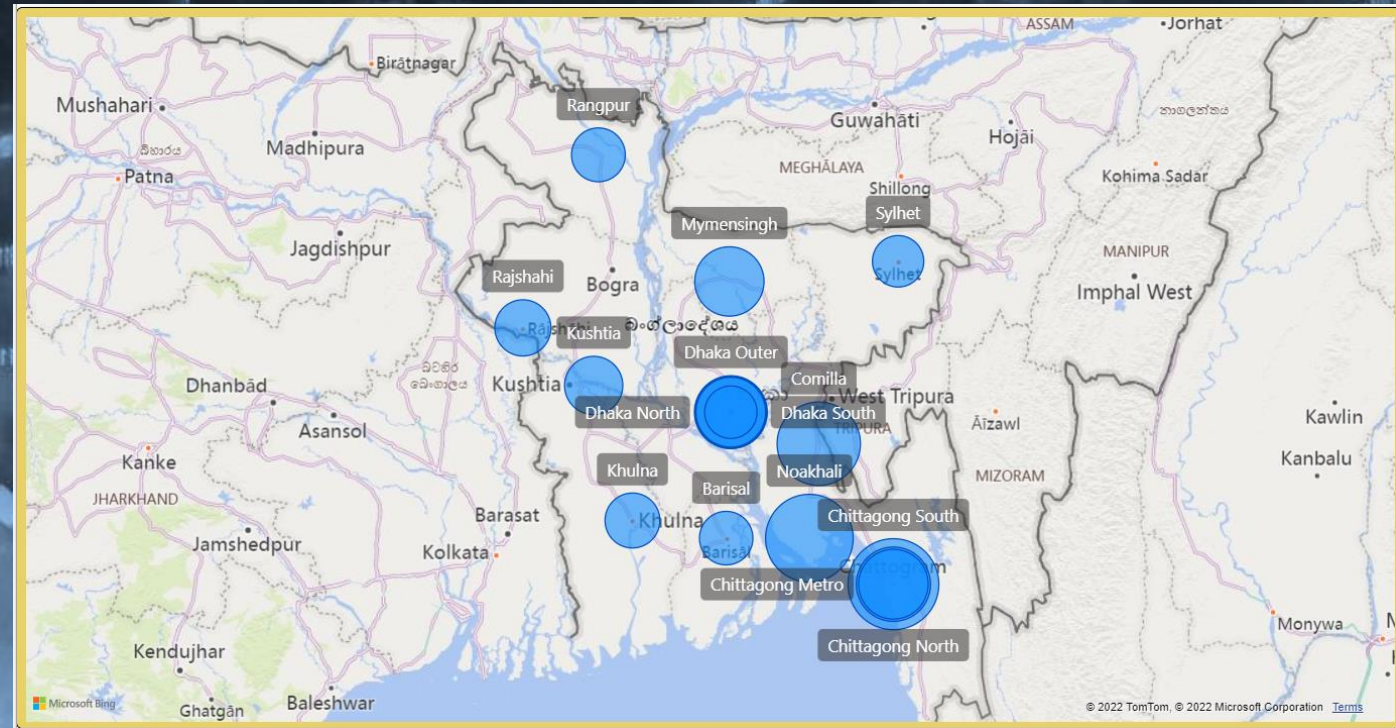
Competitor data was appended to company table and text data table was merged to company table.

ANALYSIS

RGB users

Revenue Generating Base

It is a count of users who actually contribute to generate revenue by consuming data facilities of each company after paying for them.

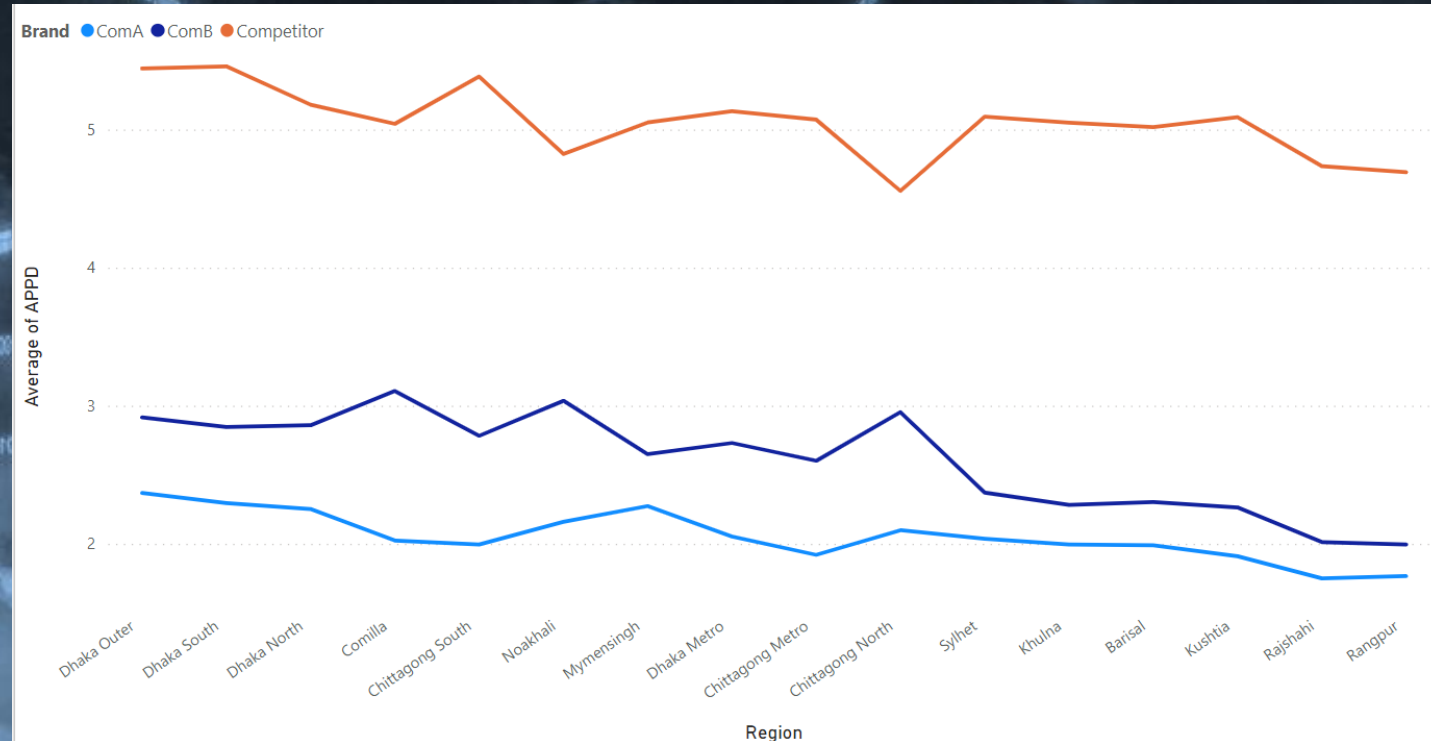


ANALYSIS

APPD

$$APPD = \frac{\text{Revenue of the region}}{\text{Data Volume of that region}} \times 100$$

APPD is the average price per data. When average data price is high it will affect the amount of users using the network in that specific region.

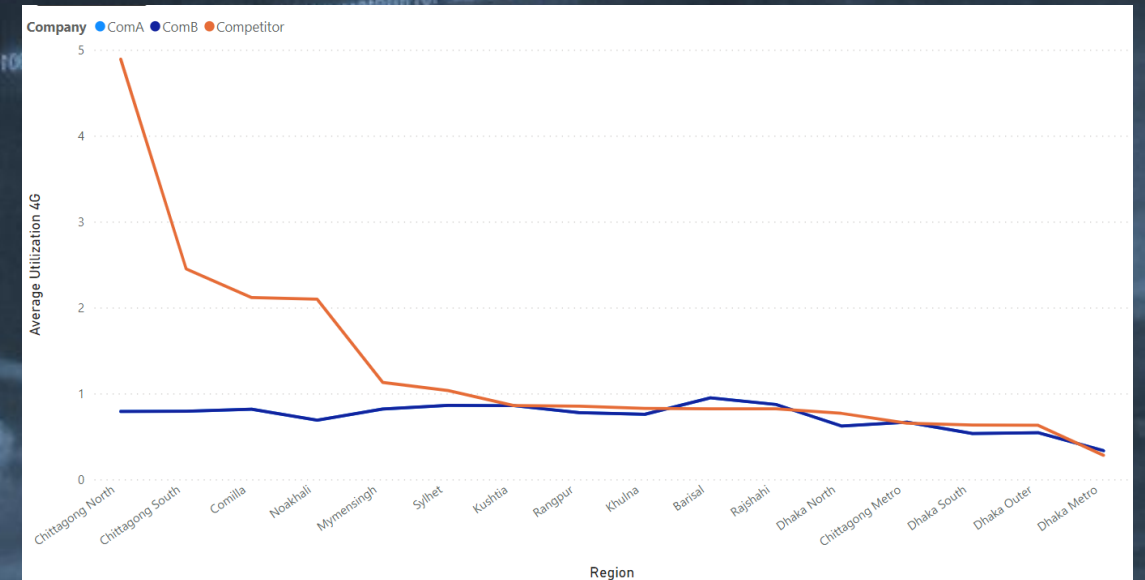
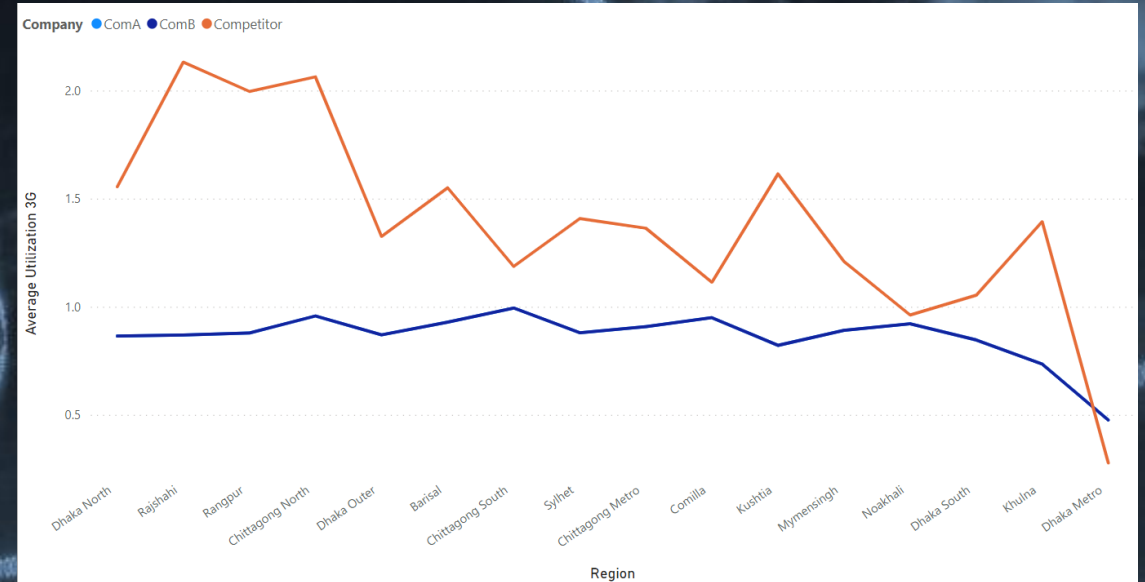


ANALYSIS

Utilization

$$\text{Utilization} = \frac{\text{Traffic of the region}}{\text{Capacity of that region}} \times 0.9$$

Network utilization is the proportion of the current network traffic to the maximum amount of traffic that can be handled (capacity). It indicates the bandwidth consumption in the network. While high utilization means more people are consuming the network, generating more revenue and low utilization means few people are consuming the network generating less revenue.



DASHBOARD

Region

All



Average of Rgb Data User by Region

84.84

Average of Total APPD by Region

3.08

Max of Data Rev by Event Date

21.75K

Average of Total APPD, Average Utilization 4G and Average Utilization 3G by Region

● Average of Total APPD ● Average Utilization 4G ● Average Utilization 3G



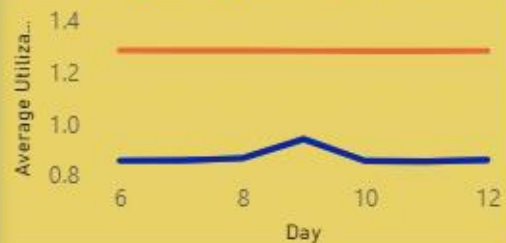
Average of Total APPD by Day and Company

Company ● ComA ● ComB ● Competitor



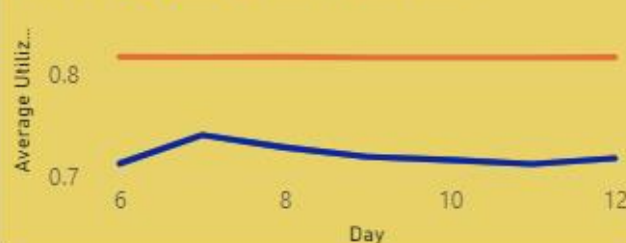
Average Utilization 3G by Day and Company

Compa... ● ComA ● ComB ● Competitor

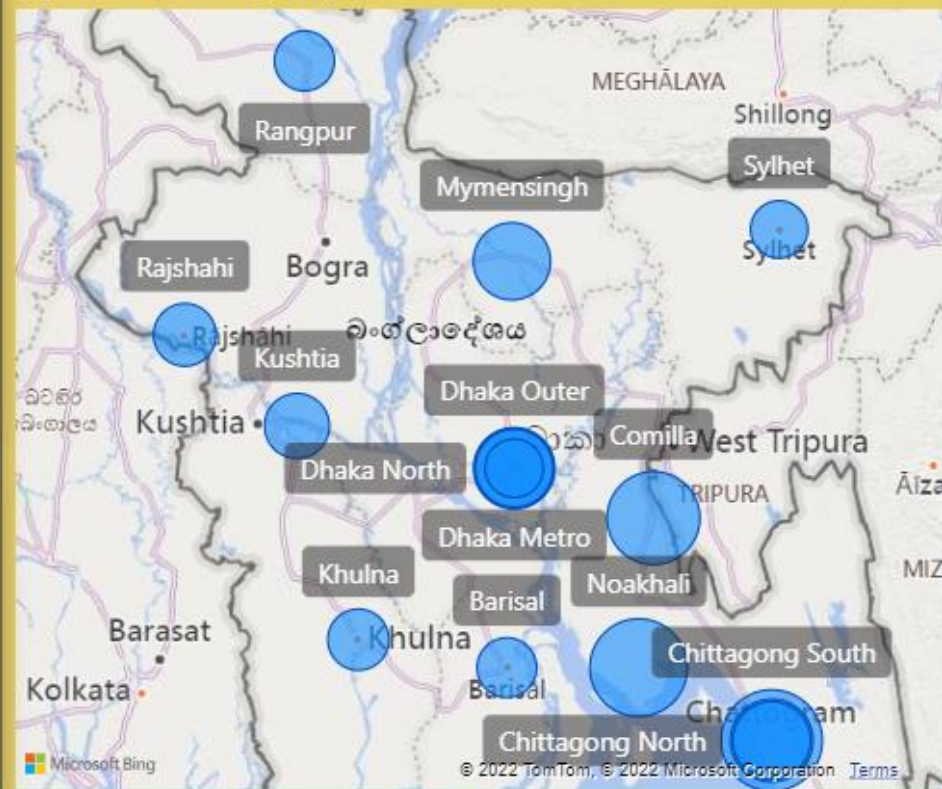


Average Utilization 4G by Day and Company

Company ● ComA ● ComB ● Competitor

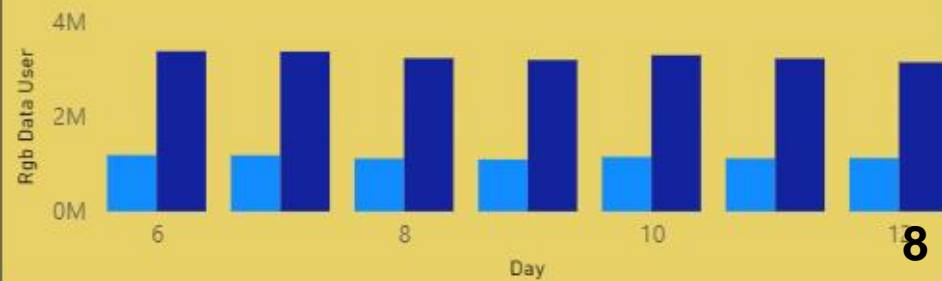


Rgb Data User by Region



Rgb Data User by Day and Brand

Brand ● ComA ● ComB



THANK YOU

