ASK

My Project Case study.

Is my daily data package worth the spend?

Case study: This year, I have resulted to buying daily data plans (2 days for 2.5gb.) from MTN ( A network service provider in Nigeria) due to the expiration of my double data package which I got as an incentive for buying a new sim card. Before the expiration of the double data package, I would normally go for a #3500 GB for 12gb (A 1 month plan) after which the data will be doubled to 24gb. Now I consider the 12 gb data insufficient by my instinct and this has resulted into me going for the 2days plan #600 for 2.5 gb. after checking my bank statement, I realized my monthly spend in data has risen recently, I have purchased more 2.5gb's than usual. Now, I have decided to use every available data to understand my mobile data spend and usage behavior so as to be able to make informed decision.

Questions:

List.

1. what is my monthly Data consumption behavior.

2. Average Daily spend on data.

3. Average weekly spend on data.

4. Mobile data consumption by application.

5. Which application is most frequently used by average daily screen time for a week.

Prepare:

The Data required to answer the above questions are to be sourced from my SMS on successful data purchase, monthly bank statement, mobile screen time behavior, and the data usage behavior channel of my device.

Duration and mode of Data collection: The duration of collection is a day as this data will be manually sourced and imputed into a google spread sheet, from available data on my mobile device and bank statement.

Here, two sets of bank statement data were collected from Opay and Access Bank respectively from the 7th of May to the 7th of June, 2024.

Data Process Report.

The gathered Data was not in the best conditions, here are some of the changes made.

1. Inconsistent values for the same attribute:

(e.g. in Subscription details sheet under the Description column had values like; Mobile data, BILLS/ MTN DATA/07064495304”). This is as a result of inconsistency in data format from the different Banks.

The description was made to adopt a unique value "Mobile Data".

Also, the charges slightly varied due to discounts offered i.e. 588, 600, 593. The values were all rounded up to the original value 600.

2. The Data types have been ensured to be consistent.

Here is a brief meta data for both sheets.

Under the User behavior Sheet:

There are 28 observations and 5 columns

a. Application: This contains the different applications on the mobile device. - String.

b. Category: This contains the category each of the applications belong too depending on their functions - String.

c. Screen Time (Daily Avg): This contains the average daily screen time for just a week in minutes. - Float

d. Rating: This contains the age ratings for these individual applications - String.

e. Mobile Data Usage: This contains the all-time data usage in Gigabytes of this applications since over a year - Float

Under the Subscription Details:

There are 36 observations and 5 columns.

the columns are;

a. Transaction Date: Shows the transaction date and contains Day, Month and Year. i.e. when the data was purchased - Date Format

b. Description: Contains the reason for the transaction i.e. mobile data - String

c. Charges: Contains the value for the data purchased, in this case it is #600 for 2.5gb to expire in 2 days. - INT

d. Channel: E-channel helps to indicate the transaction was done electronically. - String.

e. Mobile Bank App: Contains information on which bank the purchase was made from. - String.

