Smartphone Usage Behaviour Dashboard

Abstract

This project uses Excel to analyze smartphone usage based on device type, OS, and user demographics. It identifies usage patterns, segments user behavior, and presents insights through a visual dashboard to support data-driven decisions.

Submitted By

Rineesh M S

Muhammed Zameel C

Athulya C

Akhil Das

Shadin P K

Aim

To analyze smartphone usage Behaviour across different users based on device model, operating system, and demographic attributes, and to develop a summarized dashboard for insight-driven decision-making.

Problem Statement

With the increasing diversity in smartphone models and user behaviour, understanding how device usage varies by demographic factors (age, gender) and technical factors (device type, OS) is crucial. The challenge is to effectively extract, process, and visualize this data to:

- Identify usage patterns.
- Compare device performance across user groups.
- Profile users based on their app usage and data consumption habits.

Requirements

- Microsoft Excel
- Basic Knowledge in Excel
- A Computer or laptop

Procedure

- **Collect User Data**
  - Gather information such as:
    - **Device Model** (e.g., iPhone 13, Samsung Galaxy A52)
    - **Operating System** (e.g., Android 12, iOS 15)
    - **Usage Metrics** (e.g., screen time, number of apps used, data consumed)
    - **Demographics** (e.g., age, gender)
  - This can be done through surveys, logs, or export from mobile analytics tools.
- **Store Structured Data in the DATABASE Sheet**
  - Enter all collected data in an organized table format in a sheet named **DATABASE**.
  - Each row should represent one user, and columns should represent the attributes (device, OS, age, gender, etc.).
- **Summarize Data Using Pivot Tables in the TABLE Sheet**
  - Use **PivotTables** in a separate sheet named **TABLE** to analyse the data.
  - Create summaries like:
    - Average screen time by age group
    - App usage by gender
    - Data consumption by OS
  - This step helps transform raw data into meaningful summaries.
- **Build Visual Dashboard in the DASHBOARD Sheet**
  - Create charts and tables using the PivotTable summaries:
    - Bar charts, pie charts, and line graphs for comparisons

    - KPI indicators for total users, average usage, etc.
  - Organize visuals neatly on a sheet named **DASHBOARD** for easy interpretation.
- **Segment Behaviour Using the User Behaviour Class Column**
  - Add a new column in your **DATABASE** sheet called **User Behaviour Class**.
  - Classify users based on patterns, such as:
    - Light / Moderate / Heavy users (based on screen time)
    - Data savers vs. heavy downloaders
  - Use conditional formulas or rules to automate classification.

Conclusion

The Excel dashboard provides insights into how users interact with their smartphones, enabling better understanding of app performance, demographic trends, and device-specific behaviour patterns. This empowers data-driven decisions in product design, marketing, and user experience optimization.