MOBILE USAGE ANALYSIS

Insights on Screen Time, Data Usage, Battery Performance, and User Behavior

A DETAILED PROJECT REPORT

BY

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MOBILE USAGE ANALYSIS REPORT

Introduction

1.1 Overview

Mobile devices have become an integral part of modern society, influencing various aspects of daily life, including communication, entertainment, productivity, and social interactions. This report provides an in-depth analysis of mobile usage trends among different demographics, based on data collected from 7000 users employing five mobile models. The analysis focuses on screen time, data usage, battery drain, mobile model preferences, and user behaviour classifications based on app installations and usage patterns.

1.2 Objectives

The key objectives of this study are:

- To identify trends in mobile usage across different age groups and gender categories.
- To analyse the impact of different mobile models on battery performance and app installations.
- To assess user behaviour based on the number of installed applications and app usage time.
- To compare Android and iOS usage distribution across gender demographics.
- To provide recommendations on improving mobile usage habits for better productivity and digital well-being.
- To examine the correlation between mobile usage patterns and battery performance, identifying factors that contribute to excessive power consumption.

Key Findings

2.1 Mobile Model Distribution

Users in the study use five mobile models:

- **Google Pixel 5**
- **iPhone 12**
- **OnePlus 9**
- **Samsung Galaxy S21**
- **Xiaomi Mi 11**

These models are fairly evenly distributed among the users, showing a preference for premium and mid-range smartphones.

2.2 Screen Time and Data Usage by Age Group

- **Young Adults (18-30 years old)** have the highest screen time, averaging **5.7 hours per day**. Their data usage is also the highest, surpassing **1,020 MB/day**. This trend suggests a higher engagement with social media, gaming, and content streaming platforms.
- **Middle Adults (31-50 years old)** report the lowest screen time, averaging **4.5 hours per day**, with data usage around **900 MB/day**. This group primarily engages with productivity applications, emails, and business-related usage.
- **Aged Adults (51+ years old)** have a moderate screen time of **5.2 hours per day**, with a data usage of approximately **950 MB/day**. Their mobile usage is typically focused on communication and media consumption.

2.3 App Usage by Number of Apps Installed

The user behaviour classification, based on the number of apps installed and their usage time, is divided into five categories:

- **A-Least (Minimal Users):** Users with the lowest number of installed apps and app usage time.
- **B-Normal (Standard Users):** Users with moderate app installation and usage.

- **C-Addicted (High App Usage):** Users with a high number of installed applications and extended app engagement.
- **D-Risky (Over-Engaged Users):** Users showing signs of excessive digital dependency.
- **E-Dangerous (Severe Digital Addiction):** Users exhibiting extreme mobile dependency with prolonged app usage exceeding **500+ minutes per day**.

This classification helps in understanding user behaviour and identifying potential cases of digital addiction.

Battery Drain and Operating System Analysis

3.1 Battery Drain and App Installation by Mobile Model

Battery drain is a key concern for mobile users. The study found that:

- **iPhone 12** exhibits the highest battery drain, averaging **1,580 mAh/day**, likely due to high processing power and display usage.
- **Google Pixel 5, OnePlus 9, and Samsung Galaxy S21** have a battery drain between **1,460 and 1,560 mAh/day**.
- **Xiaomi Mi 11** shows the least battery drain, averaging **1,420 mAh/day**, indicating efficient battery optimization.
- The number of installed applications does not significantly correlate with battery drain, suggesting that other factors, such as background processes and screen-on time, play a more critical role.

3.2 Operating System by Gender

- **Android** has a slightly higher adoption rate across both **male and female** users.
- **Female users** are more inclined towards **iOS**, whereas **male users** have a marginally higher preference for **Android**.
- Male users have a slightly higher count of installed applications compared to female users, potentially due to preferences for gaming and utility apps.

User Behaviour Classification and Age Group Analysis

4.1 User Behaviour Classification by Age Group

- **Aged Adults** tend to be more evenly distributed across different user behaviour classes, with a lower representation in the "E-Dangerous" category.
- **Middle Adults** have a balanced mobile usage behaviour, with the highest concentration in the "B-Normal" and "C-Addicted" categories.
- **Young Adults** show the most engagement in categories such as "C-Addicted," "D-Risky," and "E-Dangerous," highlighting higher digital dependency.
- The **E-Dangerous category** is most prevalent among younger users, reflecting potential concerns regarding excessive screen time and app engagement.

4.2 Data Interpretation

- Younger users tend to have higher engagement with social media, entertainment, and gaming applications, resulting in increased screen time and data usage.
- Older users exhibit more balanced usage patterns, focusing more on communication and essential applications.
- The variation in screen time and app usage behaviours suggests that mobile habits are strongly influenced by age demographics, technological exposure, and personal lifestyle choices.

Conclusion and Recommendations

5.1 Summary of Findings

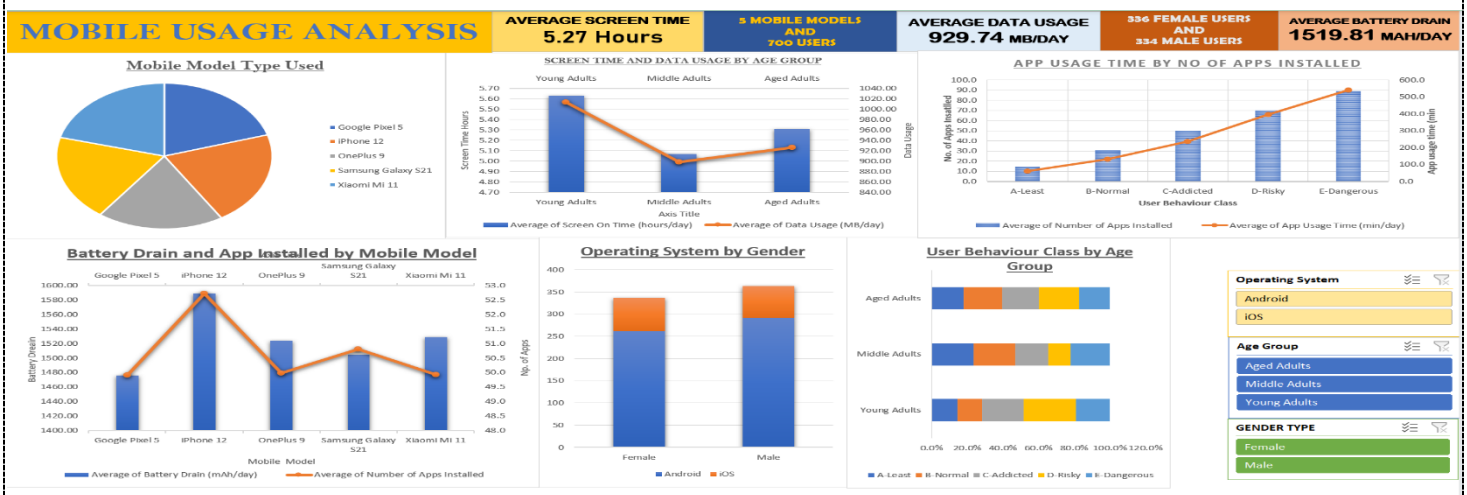
- Young Adults exhibit the highest screen time and data consumption, primarily driven by entertainment and social media.
- Middle and Aged Adults have more balanced mobile usage patterns, with a focus on productivity and communication.
- The iPhone 12 has the highest battery drain among all mobile models analysed.

- Android has a higher adoption rate among male users, whereas iOS is slightly more popular among female users.
- Risky user behaviours, such as excessive app usage, are more prevalent among younger age groups, potentially leading to digital addiction.

5.2 Recommendations

- **Digital Well-being Awareness:** Implement mobile usage awareness programs to educate younger users on responsible screen time management and app engagement.
- **Battery Optimization Strategies:** Encourage manufacturers to develop better battery management tools to optimize power consumption in high-drain devices.
- **App Usage Monitoring:** Users should be encouraged to monitor and regulate their app usage through built-in tools like screen time trackers and digital well-being applications.
- **Balanced Mobile Habits:** Middle and aged adults should explore features that enhance productivity while minimizing distractions.
- **Further Research:** Future studies should explore the psychological impact of excessive mobile usage and ways to mitigate digital dependency.

This report provides a comprehensive understanding of mobile usage patterns, offering valuable insights for both users and industry stakeholders to optimize mobile interactions for different demographics.



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