

**ASSESSMENT TITLE : Data Analysis and
Insights for Page Optimization & Increasing
User Installation and Engagement**

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Data Analysis and Insights for Page Optimization & Increasing User Installation and Engagement

- As an intern in the Business Analytics team, my task is to analyze a provided dataset and generate actionable insights to optimize page performance for a fictional company called "XYZ Inc."
- The analysis aims to generate actionable insights and recommendations to optimize page performance, increase user installation, and enhance user engagement on the company's App and Website.

UNDERSTANDING THE DATASET

- **Key Variables:** The key variables in this dataset were User Acquisition, Event Report, Traffic Acquisition, Conversion Report, Pages & Screens Report, Demographics Report, Citi wise Report and Gender Report.
- **Data Preprocessing:** Null values were eliminated, checked for duplicate records and eliminated them and checked for outliers if any were present.

EXPLORING USER DATA INSIGHTS

Event Report:

- The "notification_receive" event has resulted in the highest number of conversions.

Gender Report:

- Men have more conversions and new users compared to females.
- Females, on the other hand, exhibit a higher engagement rate than men.

Factors Influencing User Installation & Engagement

Demographics Report:

- India has the highest number of users among all countries in the dataset.

Citi wise Report:

- Top 5 cities with the highest average engagement time are Budaun, Jammu, Eluru, Dharmapuri, and Erode.

User By Interest Report:

- Users interested in "Shoppers" have the most conversions.
- "Media & Entertainment/Comics & Animation Fans" show the most engaged sessions.
- "Sports & Fitness/Sports Fans/Racquetball Enthusiasts" have the highest engagement rate.
- "Media & Entertainment/TV Lovers/Game, Reality & Talk Show Fans" exhibit the most engaged sessions per user.
- "Shoppers/Shoppers by Store Type" have the highest average engagement time.

User By Language Report:

- English language users have the most significant number of users, event count, and conversions.
- Chinese language users, however, show the highest engagement rate, engaged sessions per user, and average engagement time.

User By Age Report:

- The age group "18-24" has the most conversions and average engagement time. □ The age group "45-54" has the least number of conversions.

Evaluating Marketing Campaign Effectiveness

Google Ads Report:

"App Installation for May --Shahid" campaign achieved the most users, engaged sessions, clicks, cost, conversions, and event count.

"App Install-1to5NC-StateA200-07Jul22" campaign had the highest cost per click.

Actionable Insights for Performance Optimization

As per the Exploratory Data Analysis, we can conclude that the targeting of the Indian market has been achieved. We can target the worldwide market with keeping in mind of the things that have worked in the Indian market. It has been seen that the females have been more engaging with the campaigns with compared to males and the interest which has led to the greatest number of audiences has been shopping. We can strategize an online marketing campaign targeting the youth aged 18 – 24 years particularly the females to boost the conversion.