Title: Customer Loyalty and recommeder System

Problem Statement/Description:

We are large multinational company with 14k+ Users (consumers of products). Customer loyalty and retention is critical to our business. With e-commerce boom, we need competitive advantage and more personalized experience for our stakeholders. With increasing numbers of brands, growing number of users and changing environment, it is important for us to get insights into our customers, product basis. Our business decisions influenced by analytics can drive our marketing efforts to increase customer retention, build loyal relationship with Users, and increase revenue and User engagement.

Users have a huge choice of products to purchase but limited time. The real challenge is to provide recommendations of products that are relevant to the users, help users discover brands that they might never heard before or brands they might not know they would like. Filtering brand from entire catalog of brands which are relevant to the users is basically the key focus.

Business Case:

Increase loyalty, satisfaction, profits, revenue, engagement and customer life time value (LTV)

Data set:

A subset of Transaction data from Acquire valued shopper dataset (Kaggle) will be used for this project.

Exploratory data analysis, data wrangling and clustering will be performed on the User-brand interaction history (transaction data) to get insights on Users behavior.

Concept:

If two users have the same opinion about a brand. They are likely to have the same opinion about other brands. Based on User purchase behavior history, the scope of this project is to find

- Similar brands
- Similar Users
- Preferences of one brand over another

- Top selling brands
- Top trending brands
- Similar purchases made during a time interval

Business value/Impact:

Insights provided by Data analysis on purchase transactions history will help marketing to:

- Segregate customers into clusters based on different combination of input features
- Profiling clusters for targeted campaign management

Deliverables:

- User to User recommendation
- Visualization & Exploratory data Analysis
- Codes

Cost Benefit Analysis:

Expected Benefits by Recommender system:

- Projected increase in sales by 25%
- Project Duration: 5-6 weeks
- Project Cost = 1.5 M
- Benefit-Cost Ratio = Total Benefit /Total Cost =10 M/ 1.5 M = 6.6

The expected **revenue** is 6.6 times the investment cost