



MID 1 Solution by Dr. Rana Maqsood
BA Spring 2022 Continuation Sheet _____ of _____

A1 a: Navigation based Search of Product

- Q1. How ~~good~~^{much} satisfied a customer while navigating within a category? It will answer correct label assigned to products w.r.t. category.
- Q2. How quickly one may find the product.
- Q3. Conversion rate from navigation to Add to cart.

Keyword Searches to product

- Q1. No. of interactions / swipes / touches required to reach out the desired product.
- Q2. Keywords to top '5' search result hit ratio.
- Q3. Failure or success, conversion from searches to product.
- Q4. Conversion from searched product to Add to Cart ratio.

Showcared products

- Q1. No. of products hit by user at first place (hit ratio)
- Q2. Engagement with the ~~search~~ products on screens
- Q3. Swipes / product seen ratio

1. b. Engagement: Bounce rate, time on screen, total time on screen (e.g. Navigation, ~~to~~ showcase), Bounce rate
No. of clicks

Interest: clicks, swipes (heat maps) click through ratio i.e. product / clicks, Bounce rate.

Relevance: heat maps, click through ratio, Add to Cart / products ratio
product offer / purchase ratio

(2)

Q1 C. i. Add to Cart from product (Selection product)

ii. Bounce rate.

Reasoning:

Add to Cart from product: It can be done by segmenting the users among similar/relevant class. ~~So~~ It can also be achieved through personalization.

In any case of above supervised classification can be performed. Based on historically labelled data we can infer statistically/probabilistically or categorically Y/N.

Product catgeory: price: Brand

User decision of
Purchase
Y/N

Features

Label

ii. Bounce rate:

Same method can be used for supervised learning based method. Bounce time can be binned and can be labeled.

For e.g. $< 5s$ U

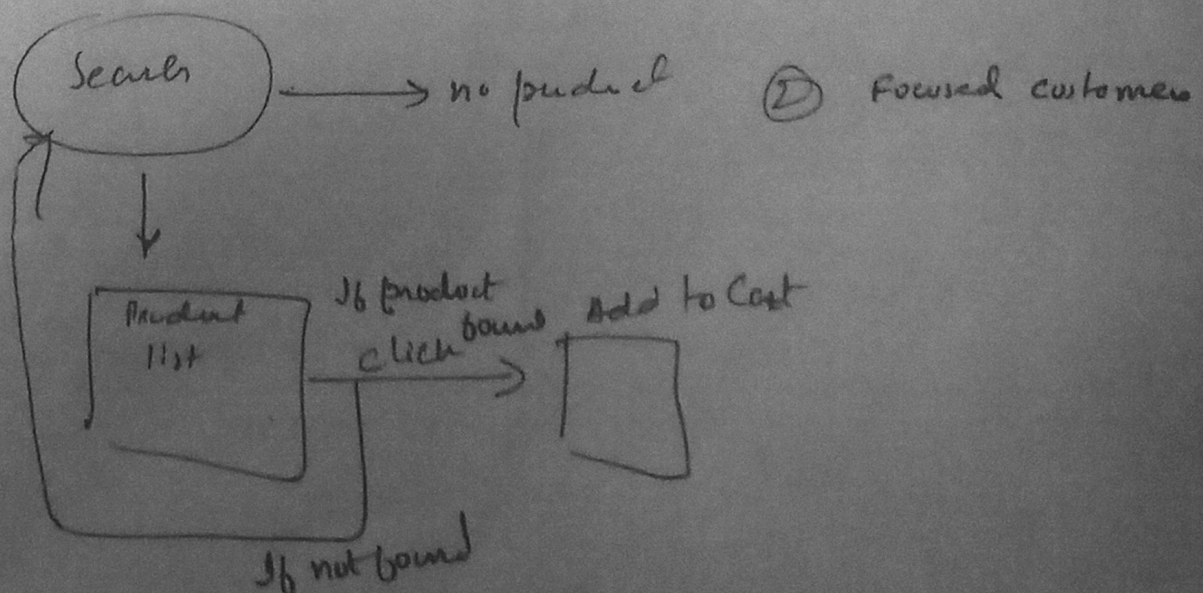
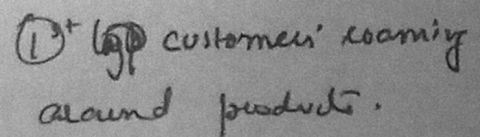
$5s > B.time < 20sec$ M

$20s > B.time$ B.

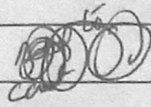
Then it will become classification problem. Otherwise on continuous variable it will be prediction problem.

Some features can be used.

③



A 2 A B



Customer Satisfaction KPI for CTO

CTO has to deal with technology. He needs to take decision towards the technology choices and their improvement. The KPIs, particularly designed for CTO must be helping him in measuring the relevant information and particularly for taking right decisions.

Usability: (A few aspects are discussed below)

- * Customer Perceiving the right function?
- * Easiness of desired actions?
- * Responsiveness of the application?
- * meeting the requirement of the customer from desired actions

Usability of ^{product} 'Search' feature is desired into

Responsiveness:

- * How long the app is taking to response against the provided searched keywords?
- * Customers leaving the feature/screen of search without reaching the desired product (quitting in process of search)
- * ~~Product~~ How successfully (by measuring/counting) the taps a customer finds a product (adding to the Cart) i.e. the taps/swipes — per product required for to be added into the Cart?
- * ~~What~~ Avg. time — distance of actions taken by the customers to reach out to some products.
- * Category exploration vs product selection ratio
- * searched keyword hit/miss ratio

meeting the customer's expectation