Jee Minsun / 지민선 / 2025008495 Monday at 8:17 PM
the first map we drew a system map based on our online shopping system map like a brainstroming. so it is not real but fake. the second map is the map which is based on the hypothesis. and the variables in the second map is all from the dataset we found. But both of them are fake...

2 files ▾   ⊕ Download all

Noah Tuesday at 10:30 AM
i hope you submitted what you had
the key part is in communicating the limitations
in this case, please explain what your initial thought was and how that changed through your data analysis
what you would be doing is making an evolution of your system map based on the learnings

(Feedback applied; our system maps are different from instructions)

<System map 1 (from dataset 1)>

(Expected)   (After data analysis)
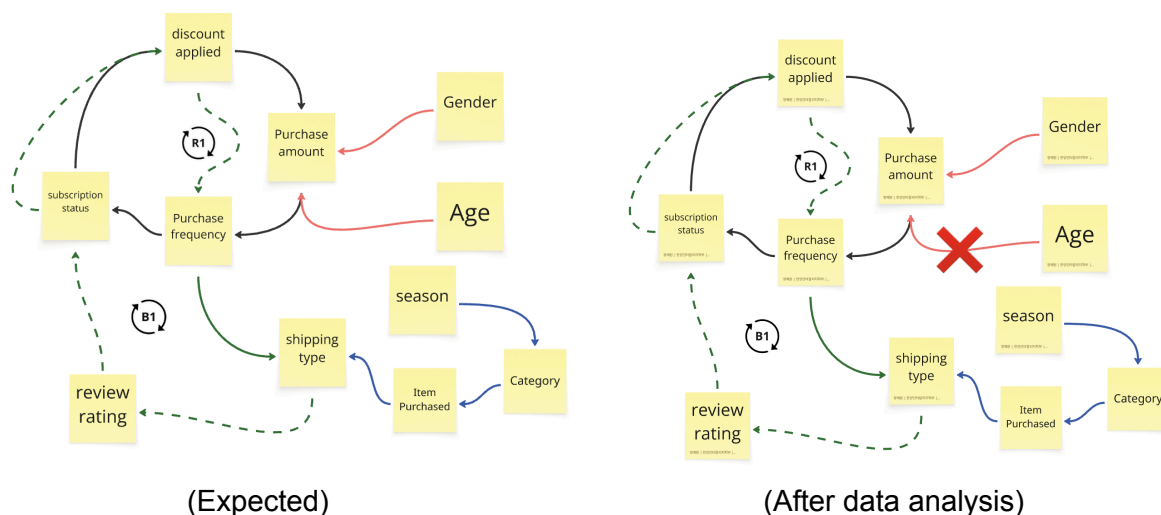
R1: When discounts or membership benefits are applied, customers tend to buy more, increasing total purchase amount. As spending grows, purchase frequency also rises, which encourages users to keep or join memberships. A larger membership base leads to more exclusive discounts or promotions, which again stimulates purchasing behavior. This creates a self-reinforcing cycle where benefits lead to higher spending, and higher spending strengthens the membership system.

B1: As purchase frequency increases, customers may choose slower or cheaper shipping options to save costs. Slower delivery lowers satisfaction and reduces review ratings. Poor reviews decrease membership retention, leading to fewer discounts and promotions. With fewer benefits, customers buy less frequently, allowing the system to self-regulate and prevent overgrowth. In short, declining service quality limits excessive growth, maintaining overall balance.

How age influence the system loops

We expected that middle-aged people use online shopping less than younger generations. Age influences how strongly each loop operates. We expect younger consumers respond more to discounts and membership benefits, so the reinforcing loop (R1) drives higher purchase frequency and amount. Middle-aged consumers would focus more on delivery quality and trust, so the balancing loop (B1) dominates, reducing their online shopping activity.

Thus, as age increases, the reinforcing effect weakens and the balancing effect strengthens, leading to lower purchase amounts.
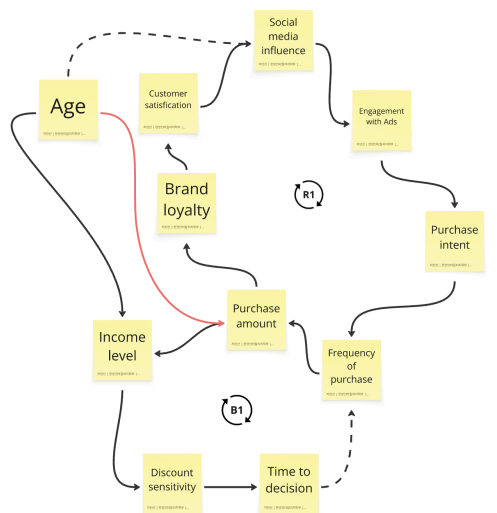
After data analysis through Tableau

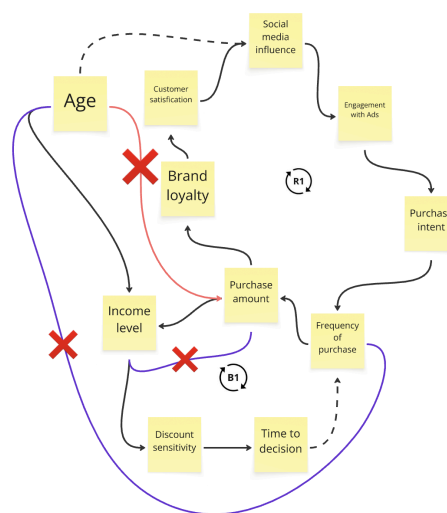(1) Age vs Purchase Amount (from Dataset 1)
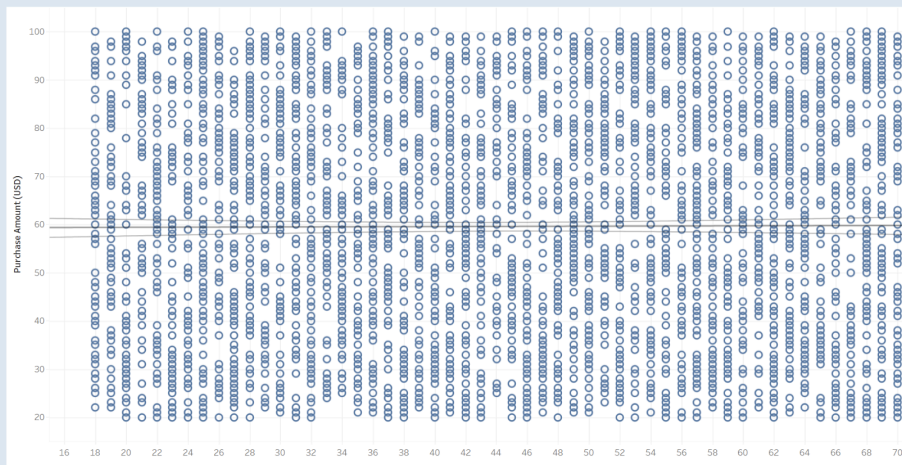
We found that Age and Purchase amount have no relationship from scatter plot.

<System map 2 (from dataset 2)>

(Expected)   (After data analysis)

R1: When Age decreases (younger consumers), Social media influence increases. This leads to greater Engagement with Ads, which strengthens Purchase intent and increases the Frequency of purchase. As they buy more, the purchase amount rises, resulting in higher Brand loyalty and Customer satisfaction. Satisfied customers share more on social media, further boosting Social media influence — completing a self-reinforcing cycle.

B1: For older consumers (higher Age), Income level and Discount sensitivity play key roles. As age increases, discount sensitivity also rises — people become more cautious about spending. They spend more Time to decide, which lowers the Frequency of purchase and reduces the Purchase amount.This lower spending feeds back to maintain their controlled Income level, forming a balancing loop.

### How age influence the system loops

Younger customers activate the reinforcing loop, where social media engagement leads to increased spending, while older customers activate the balancing loop, where discount sensitivity and cautious decision-making reduce spending.
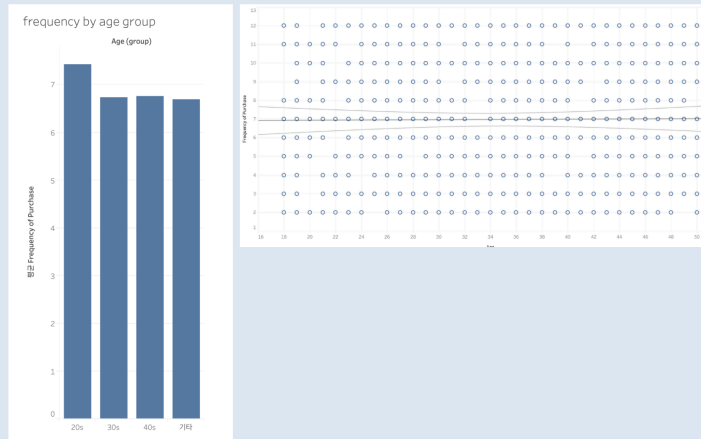
After data analysis through Tableau

(2) Age vs Purchase Amount (from Dataset 2)
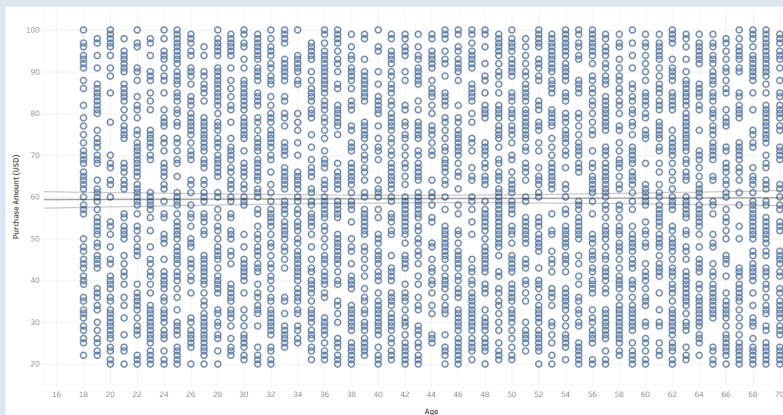
(3) Income Level vs Purchase Amount (from Dataset 2)
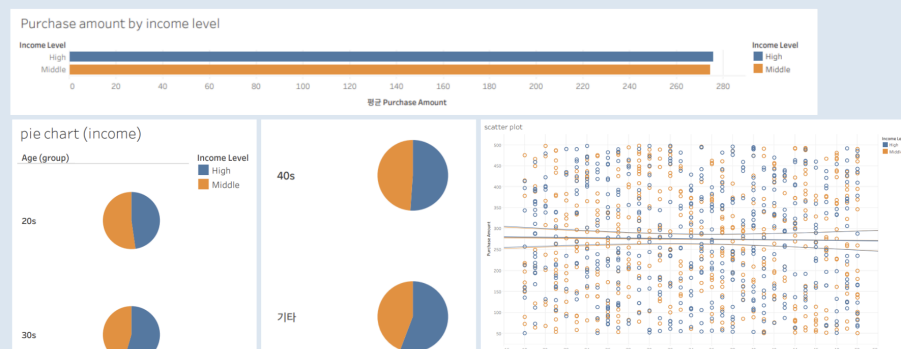
(4) Frequency purchase vs Age (from Dataset 2)

We found that Age and Purchase amount have no relationship from scatter plot, Income level and Purchase amount from bar graph, pie chart and scatter plot and Age and Frequency of purchase from bar graph and scatter plot.