

Group Project

**Object : help them to find the right product
and make the purchase process easy →
customer journey**

이해한부분 :

이 회사의 NSM 이 무엇일까?

To maximize the profit and make money → WE NEED TO OPTIMIZE FOR
THE LOWEST FRICTION BEFORE CHECK OUT → 최대한 결제창까지 끌고가
야한다.

소비자들의 journey가 어떻게 되는지 궁금하다.

그속에서 어떤것들을 develop하는것이 좋을까?

무엇이 그들의 지갑을 못열게 하는 것 일까?

어떻게 해야 그들의 지갑을 제대로 열수있을까?

Things to Know

- Customer data
 - Customer ID : unique identifier at customer level
 - Acquisition Date
 - Acquisition Channel
 - Acquisition Device
- Customer Funnel and Spend by category at monthly Level
 - Customer ID : unique identifier
 - category name : category for the product / SKU
 - SKW Viewed
 - SkU added to cart
 - SKU purchased : purchsed in that month by the customer

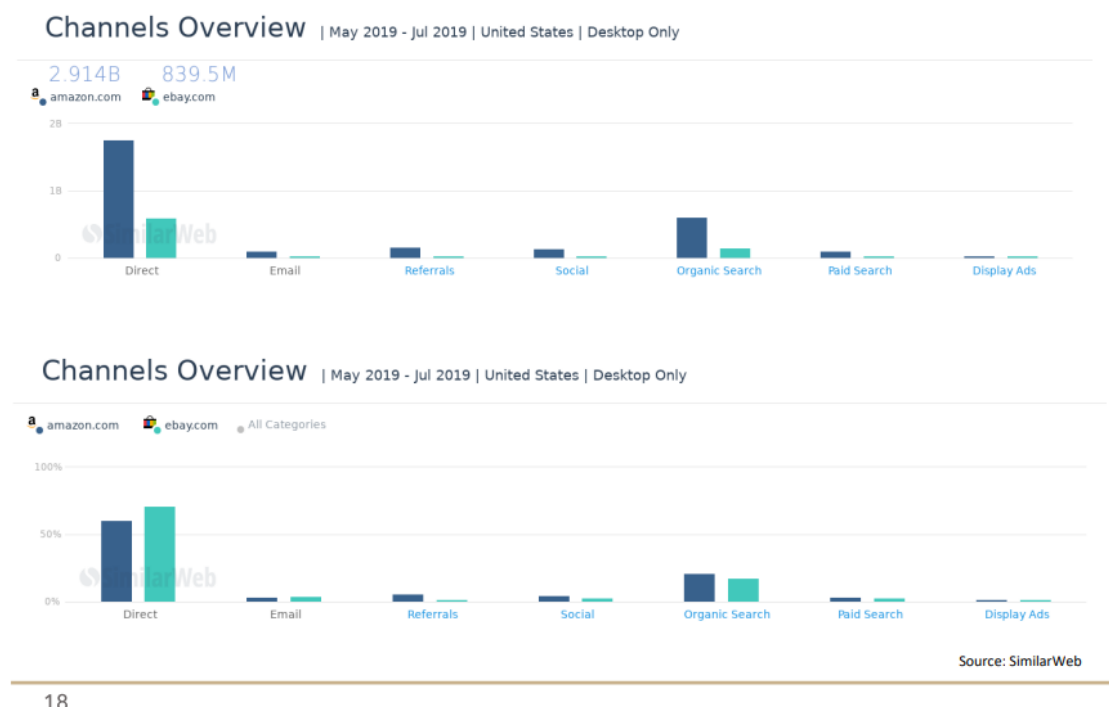
- Revenue Generated (\$) : total revenue generated from the sale of SKU purchased in that month by the customer in that category

Need to know

- 9 important metrics for E Commerce
 - Conversion Rate**
 - number purchase per year**
 - AVG shopping cart size**
 - Abonnement Rate**
 - CAC**
 - Revenue per Customer**
 - number of active customers**
 - Effectiveness of recommendation service ?
 - Repeat buyers**

우리가 해볼수 있는것들

- acquisition channel break down

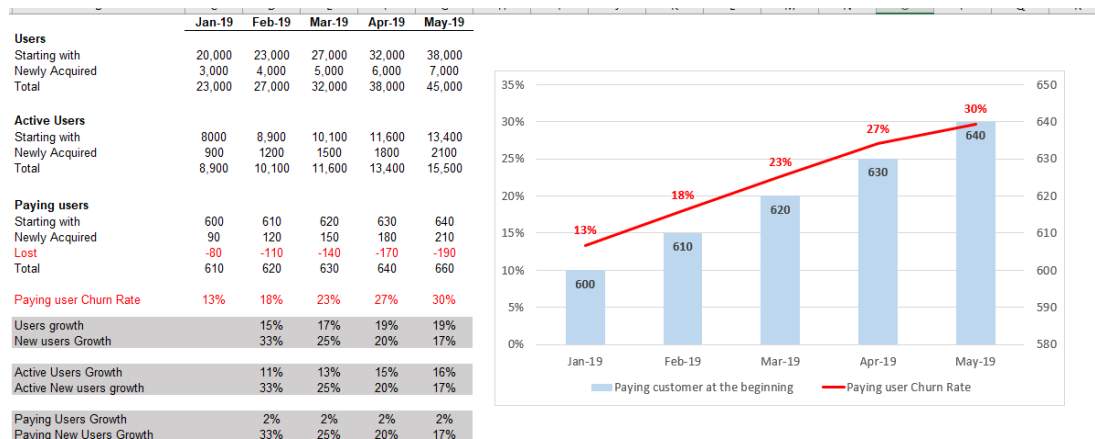


1. Each Acquisition Channel

- #of visitors
- percentile of purchase conversion
- avg value per order
- avg order per buyer
- Conclusion : which channel is more valuable?
 - total reveue
 - total revenue / visit

2. Churn Rate Calculation

a.



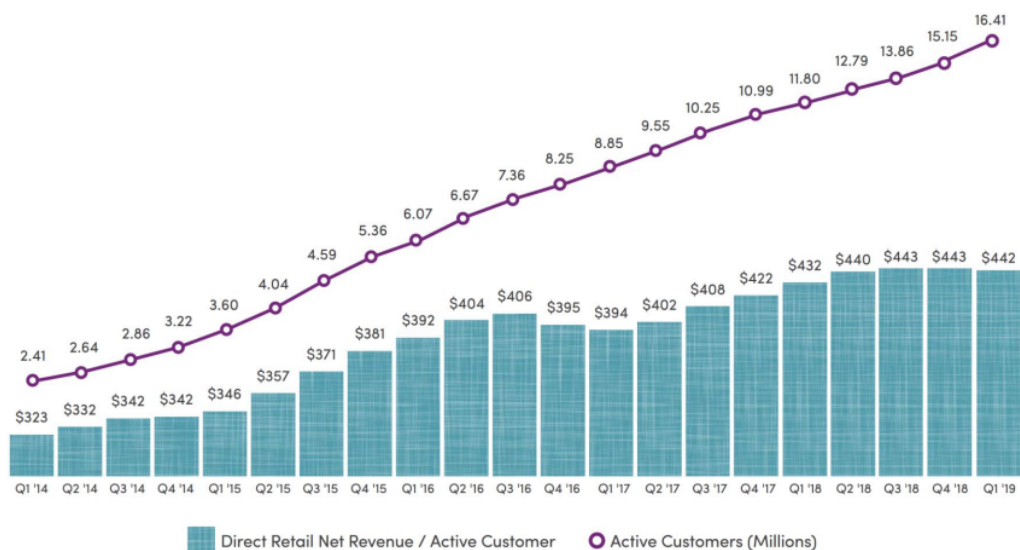
2. Customer journey

a. 5 stage of buyer journey

- Signup
 - %of visitors who sign up
- View Conversion
 - % customers who view skus
- Cart Conversion
 - %customers who add SKUs to cart
- Purchase Conversion

1. % who purchase SKUs
- v. Repeat purchase conversion
 1. % Customer with repeat Purchase more than 1
- b. we could use **AARRR** method
 - i. Acquisition → activation → retention → revenue → referral
3. Active User
 - a.
 - b. Check the User Growth and where it comes from
 - c. Active user Growth
4. number of active users as well as revenue per customer in quarter

Wayfair.com reports on # active customers as well as revenue per customer in quarterly earning call (Q1 2019)

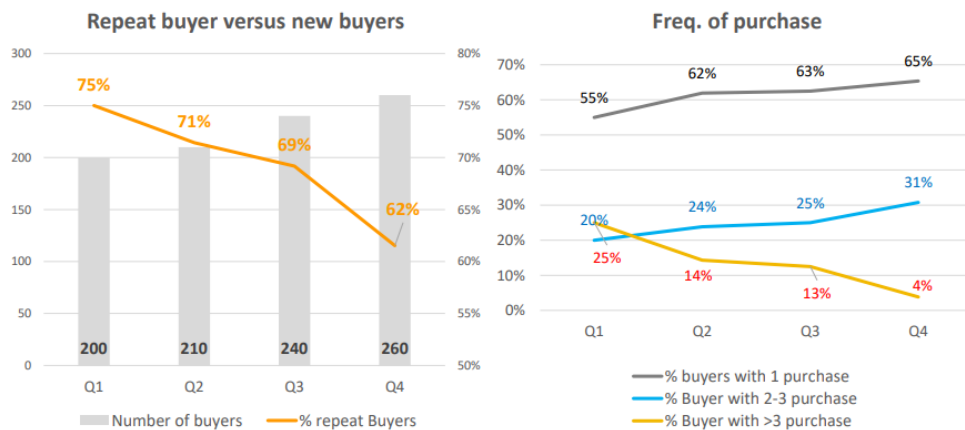


5. Is there anyway to have a value for CAC? For prediction or have any data about costs that they spend for acquire new customers?
 - a. If we do have CAC might be a good idea to calculate LTV for it.
6. Customer Retention
 - a. Why good?

- i. When customer retention up → CLV up → boost revenue
- b. mostly, cost for retention is cheaper than acquiring new customers.
- c. Charts Sample

➤ **What** can we learn from repeat buyer behavior?

➤ **How** can we increase the repeat behavior here?



- d. **Online channels primarily for customer retention vs acquisition among companies**

Online Marketing Channel	Acquisition	Retention	Both Equally
Mobile messaging	23%	58%	19%
Email	21%	52%	27%
Mobile apps	30%	44%	26%
Mobile and web push notification	34%	39%	27%
Social media marketing	31%	28%	41%
Web retargeting	61%	22%	18%
Mobile web	52%	18%	30%
Website	29%	16%	55%
SEO (Organic) search)	66%	6%	28%
Online display advertising	85%	4%	11%
Paid search	86%	2%	13%

1.

7. CCR (Customer Retention Rate)

a. Calculation

- i. number of buyers in specific period who also purchased in previous period / number of buyers in previous period

Customer Retention Rate (CRR) Formula for E-Commerce businesses

$$\left\{ \begin{array}{l} \text{Number of Buyers in this} \\ \text{period who also} \\ \text{purchased in previous} \\ \text{period} \end{array} \right\} / \left\{ \begin{array}{l} \text{Number of} \\ \text{Buyers in} \\ \text{previous period} \end{array} \right\}$$

	Jan	Feb	Mar
Number of buyers	50,000	54,000	48,000
Number of new buyers	7,000	10,000	8,000
Number of repeat buyers	43,000	44,000	40,000
Number of buyers from previous month		30,000	35,000
Retention Rate (from prev period)		60%	65%

ii. Repeat Rate

Difference between Repeat Rate and Retention Rate for E-Commerce businesses

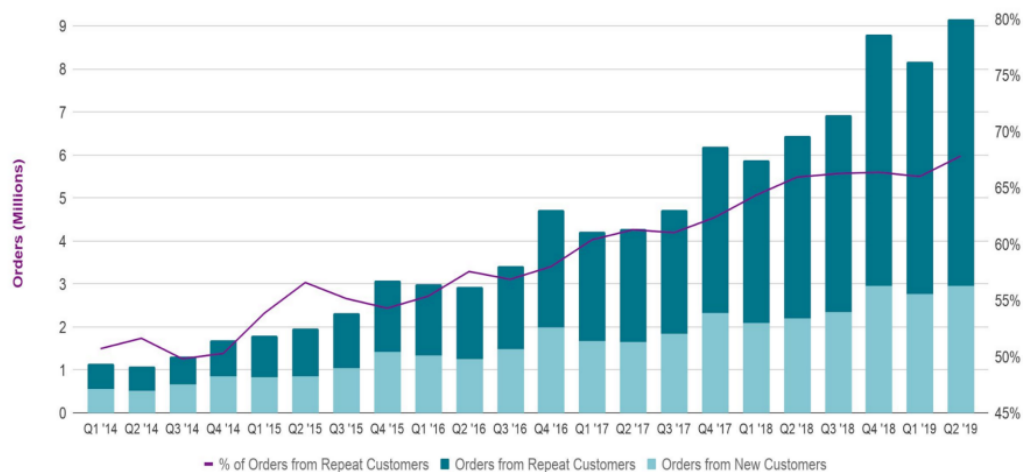
Repeat Rate:

$$\left\{ \begin{array}{l} \text{Number of Buyers in this} \\ \text{period coming from} \\ \text{previous periods} \end{array} \right\} / \left\{ \begin{array}{l} \text{Number of} \\ \text{Buyers in this} \\ \text{period} \end{array} \right\}$$

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Retention Rate (from prev period)		60%	65%
Repeat Rate	86%	81%	83%

8. Repeat customer Rate \rightarrow total repeat buyers / total customers
 - a. AOV (Average Order Value)
 - i. revenue / number of orders
 - ii. Focus on deriving more revenue value from loyal customers
 - iii. Can a good purchase experience can encourage more spending?
 - b. CLV

Retention metrics are reported by companies (e.g., Wayfair.com) in their quarterly earning call to the public



9. Cohort Analysis

10. Engagement (Suggestion) 에 사용하면 좋을듯싶다

- a. if users are getting more value from the business, they are staying longer
- b. if users stay longer, the business can retain longer
- c. more opportunity to generate revenue and increase customer life time value

power user calculation

DAU / MAU

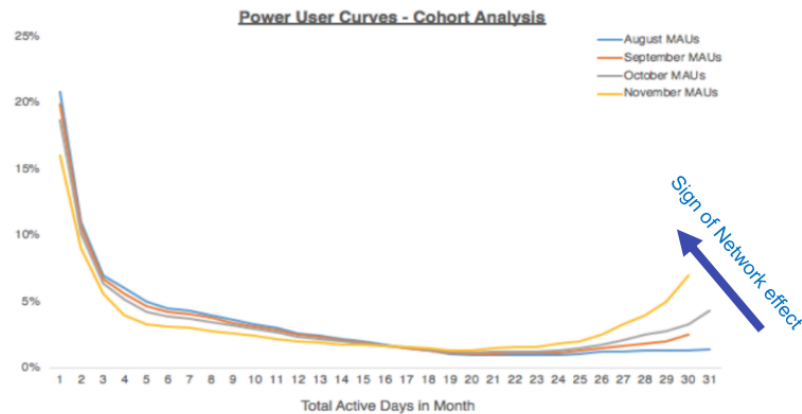
Power User Curve

power user curve will smile when thing are good

When network effect kicks in, the retention rate and engagement will improve for newer cohorts

Plotting the Power User Curve for different WAU* or MAU cohorts can also be very insightful

*WAU=weekly Active user



11. Measure Latency

a.

12. ss

13. ss

14. ss

15. ss

16. ss

17.

Suggestion

1. Based on channels, which channels should we spend more money for?
 - a. ? DO WE HAVE ANY MROI??? TO MEASURE OF IT?
2. Remind email, messages for non-active users? sending notification that they would like to click for.
- 3.