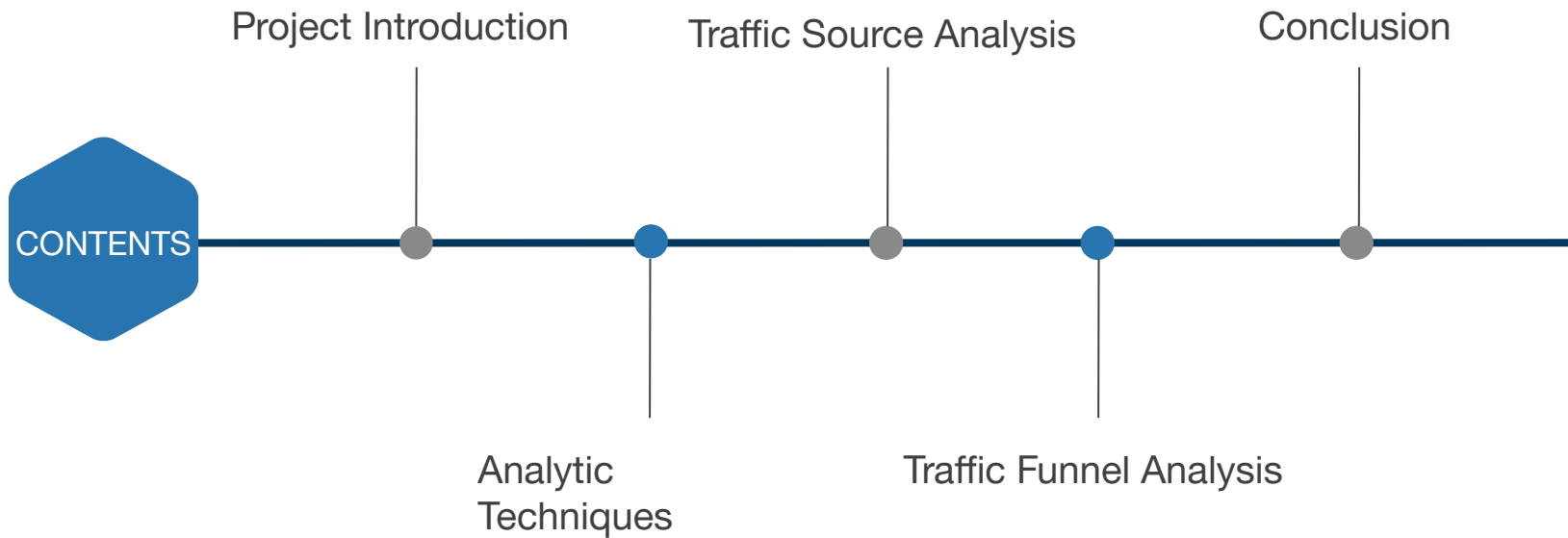


ECON 435 Final Project

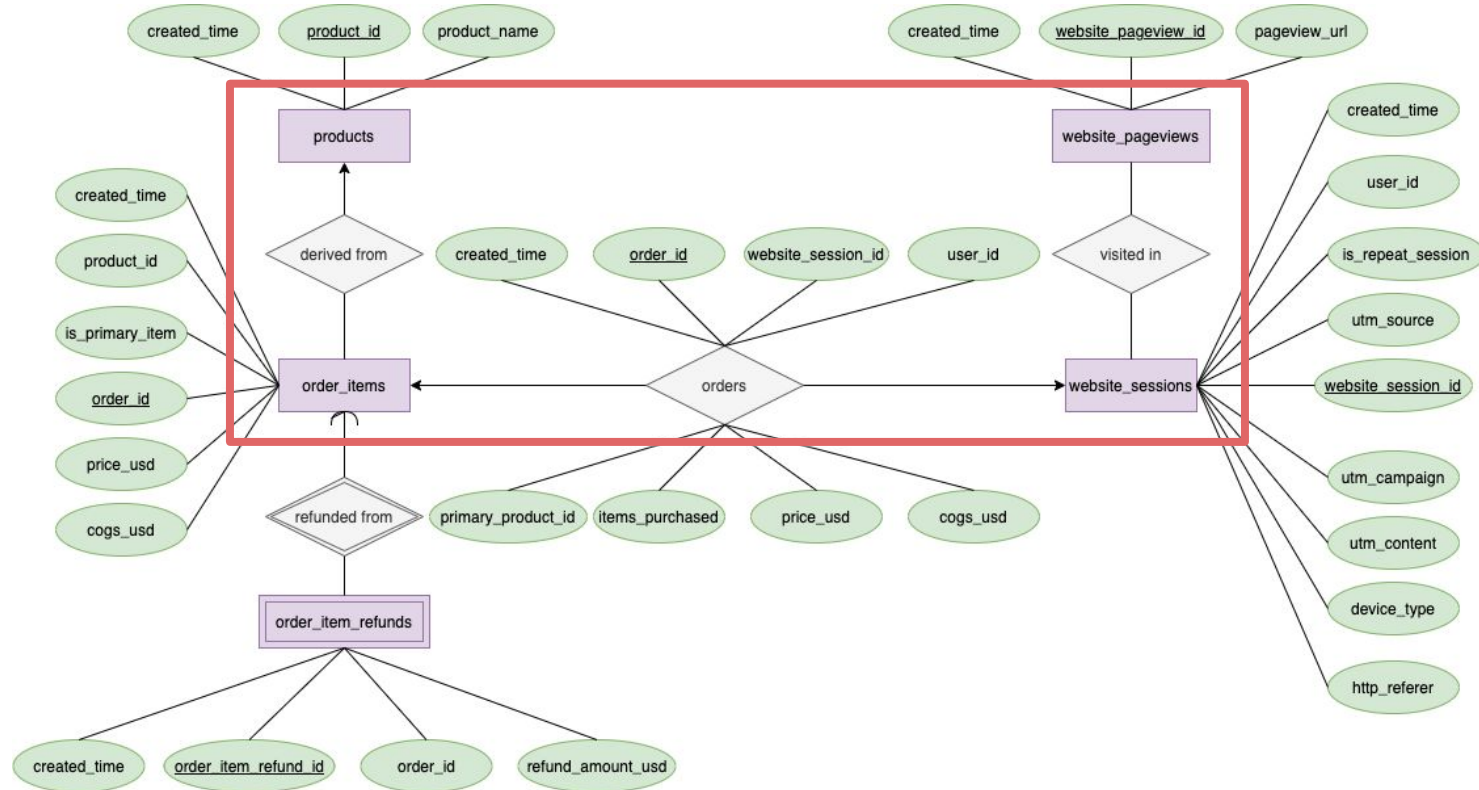
Web Traffic Analysis for an ECommerce Company Using SQL and Python

Yiran Sun (905629996)
Pingshun Xin (305642750)
Yiheng An (805640602)
Xinyi Zhang (805641673)

OUTLINE



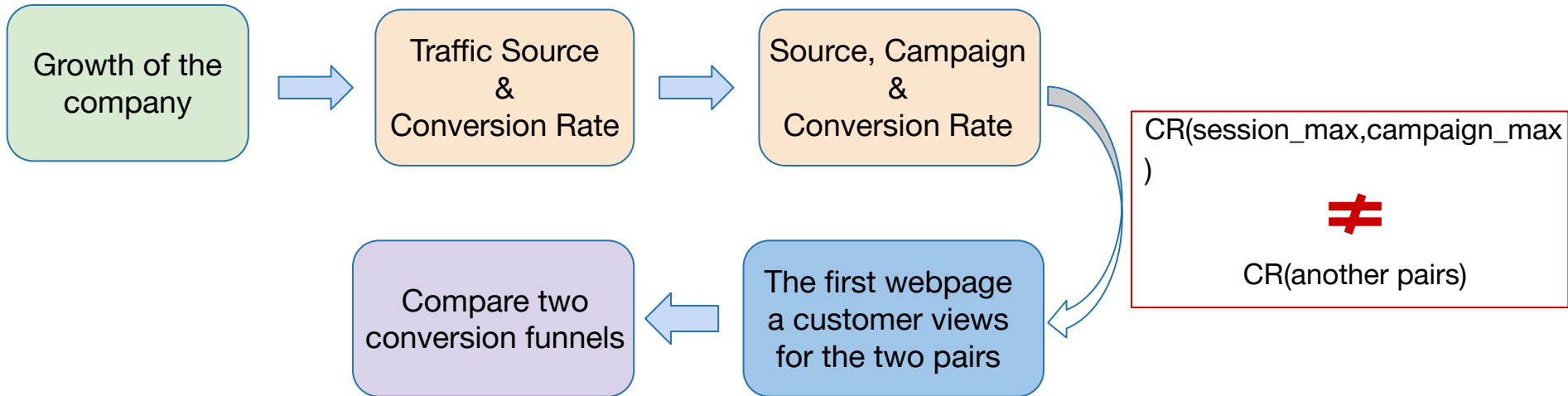
ER Diagram



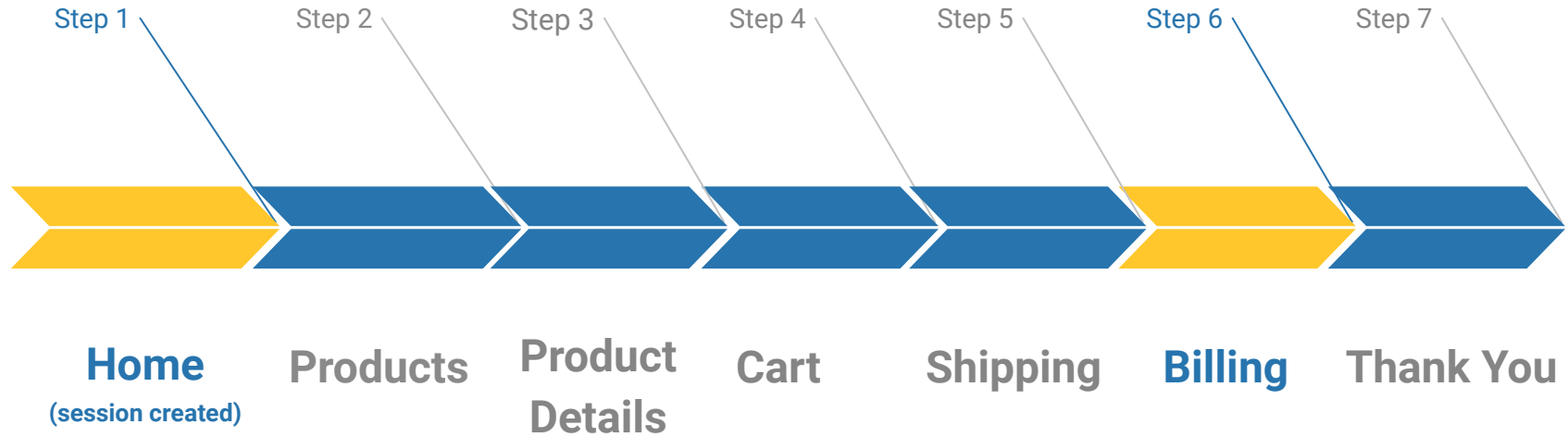
Analytical Process

We try to answer two questions:

- The source of company's growth.
- Compare the conversion rates of different traffic sources.



Business Model



Analytical Models: Traffic Source Analysis

Used to get to know **where customers are coming from** and **which channels are driving the highest traffic quality**

- Quantify traffic growth
- Break down the traffic by channels
- Evaluate the quality of traffic for each channel

Analytical Models: Traffic Funnel Analysis

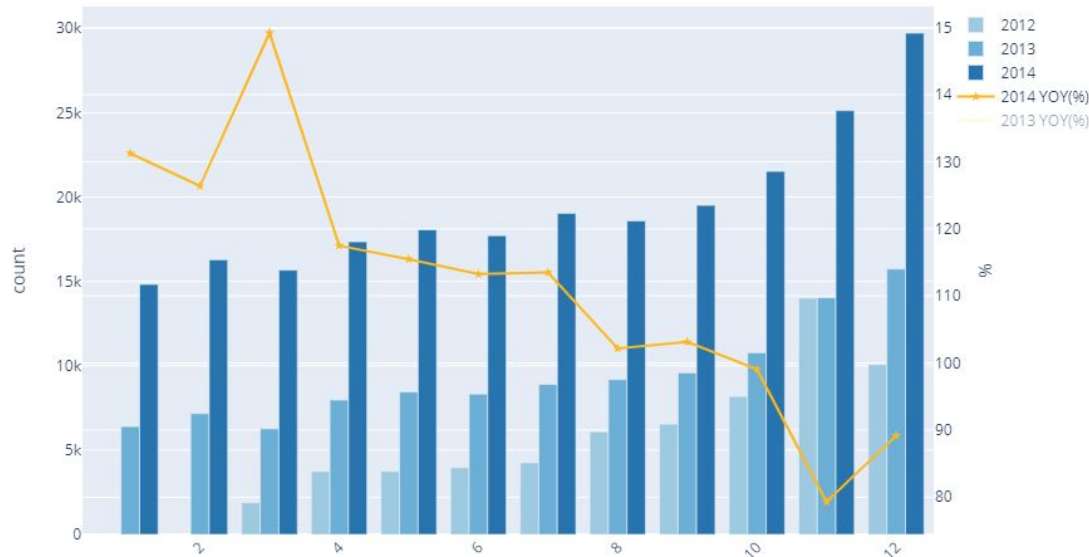
To know and optimize each step of user's experience on their journey toward purchasing products

- Comparing page view conversion by various sources
- Analyzing the first-viewed page which contain the highest drop-off

Analytical Insights: Traffic Source Analysis

Quantify Company's Growth

Monthly Web Sessions from 2012 to 2014

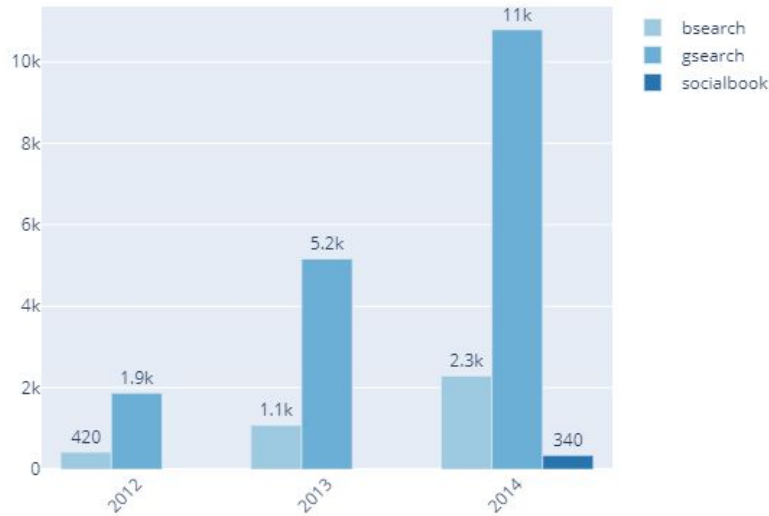


- **Sessions**
create for a user as long as s/he start to interact with the company's website
- **Monthly Growth**
positive users growth in most months, but there is a moderate decrease in growth rate over years
- **Year-Over-Year (YOY) Growth**
reaches its peak in March and falls into a trough in November

Analytical Insights: Traffic Source Analysis

Sources of Company's Growth

Annual Orders Amount by Channels from 2012 to 2014

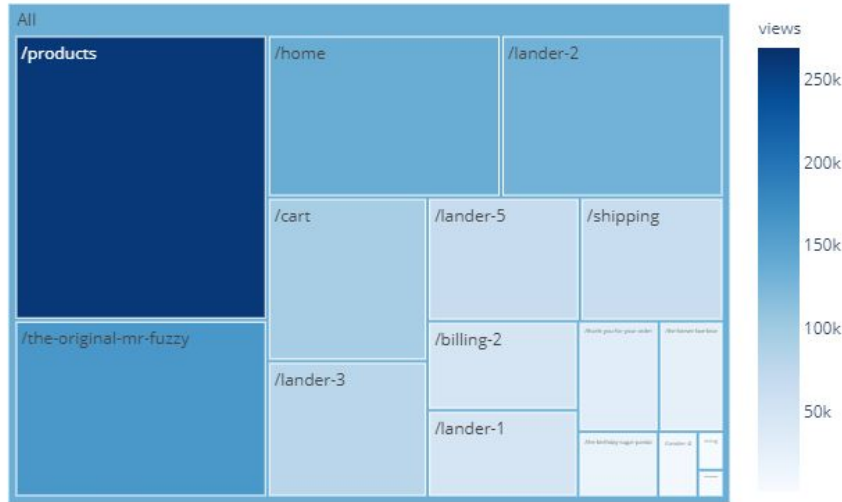


- **Gsearch** is the dominant channel that contributes the most orders and highest annual growth rate.
- **Bsearch** generates moderate orders amount and growth rates. Both channels display a decreasing growth rate.
- **Social book** is a newly introduced channel that is not fully-developed.

Analytical Insights: Traffic Source Analysis

Top Web Pages

Web Pages by Views

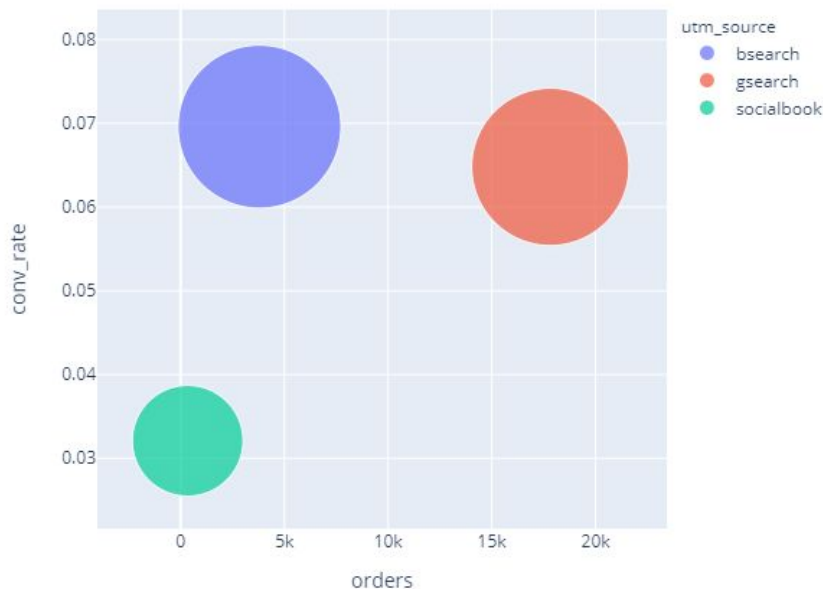


- **Product Page, Mr. Fuzzy Page** and **Home Page** are Top3 pages with highest views
- There are **5 different** custom made lander pages that parallel with the home page. **Lander 2** obtains the highest views.

Analytical Insights: Traffic Source Analysis

Quality of Traffic Sources

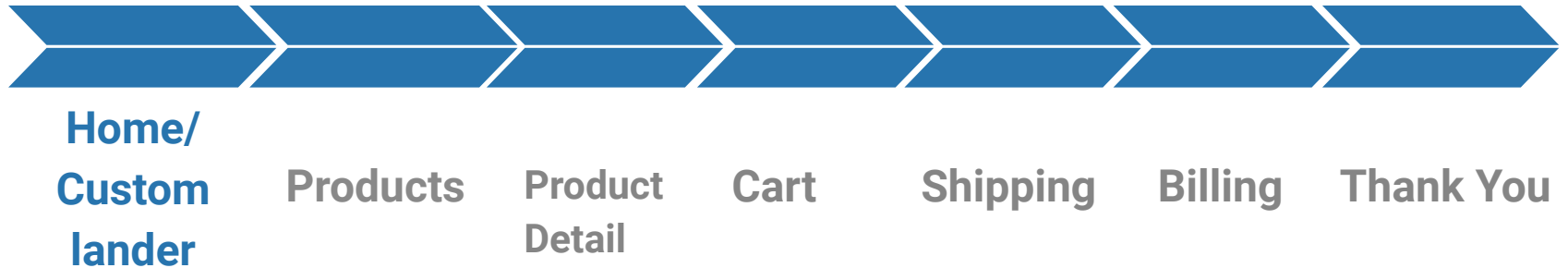
Session-order Conversion Rate for Each Traffic Channel



- **Traffic Quality**
 - a. Number of Orders
 - b. Session-order CVR
- **Bsearch** has the highest session-order CVR but it doesn't generate many orders
- **Gsearch** has relatively high session-order CVR and drive the most orders.

Analytical Insights: Traffic Funnel Analysis

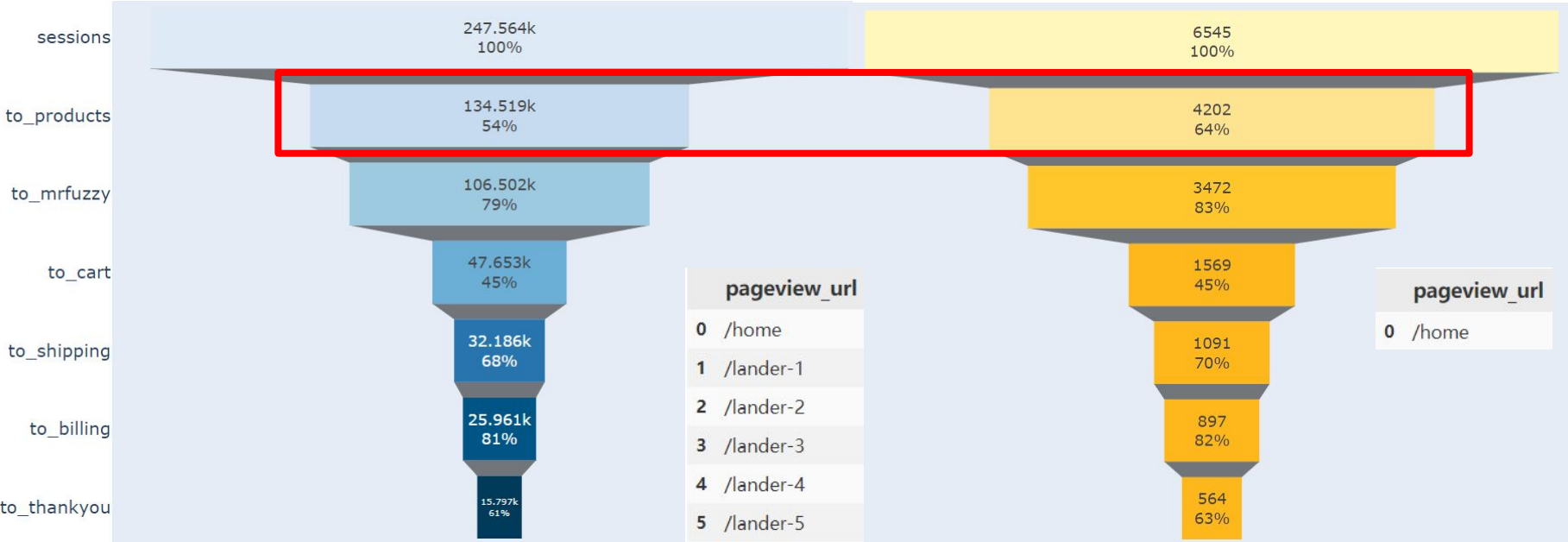
What process are affecting the CVR?



Analytical Insights: Traffic Funnel Analysis

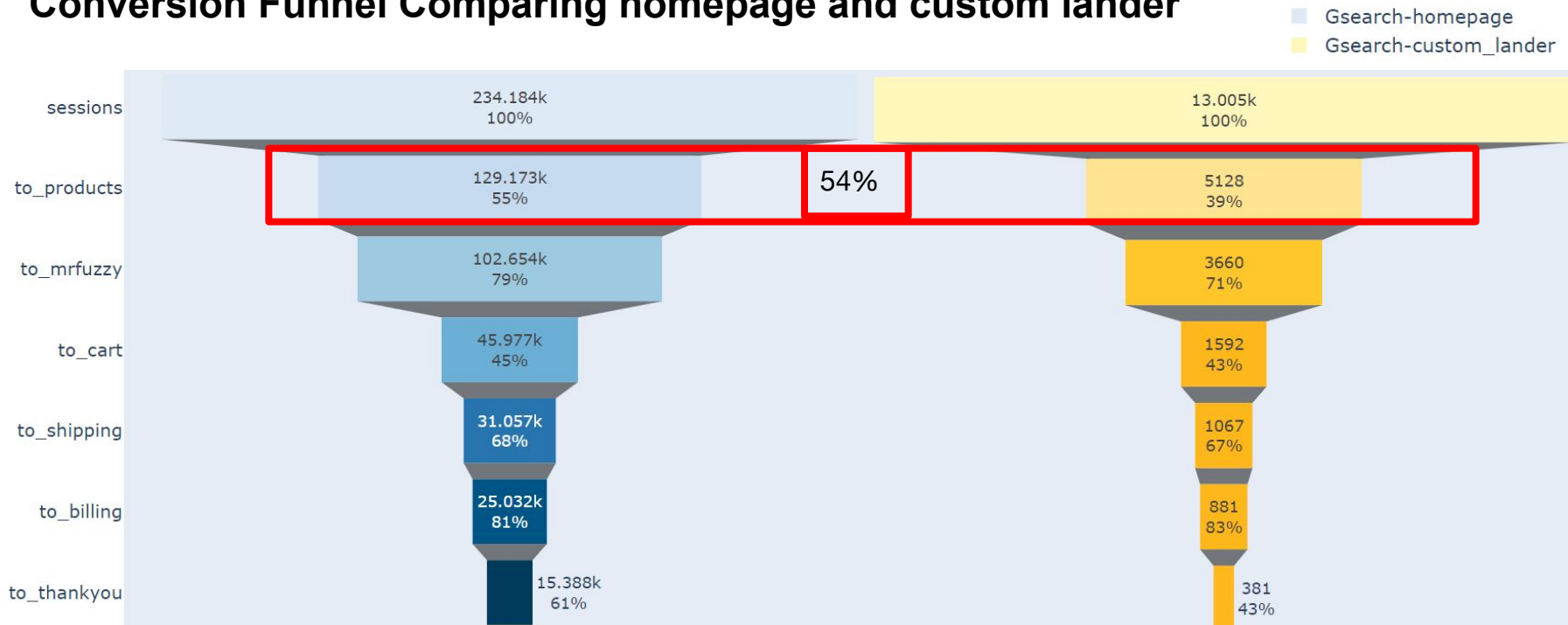
Conversion Funnel Comparing Gsearch and Bsearch

Gsearch
Bsearch



Analytical Insights: Traffic Funnel Analysis

Conversion Funnel Comparing homepage and custom lander



Conclusion

- The company possesses positive user growth but moderate decreasing growth rate.
- Bsearch brings most orders while Gsearch converts users to orders most successfully.
- Both as first-viewed page, homepage has higher conversion capability than custom lander.
- But the base population matters.

Thank You
