INTRODUCTION

The Looker is a leading e-commerce platform offering a wide selection of fashion, from the latest trends to timeless pieces, all at competitive prices. Serving customers worldwide.

The Looker provides reliable international shipping, Fast delivery, and a hassle-free order cancellation feature, ensuring a more convenient, secure, and satisfying shopping experience.

OVERVIEW

In the e-commerce industry, retaining customers is just as important — if not more important — than acquiring new ones. Cohort Retention Analysis is an effective way to understand customer behavior over time.
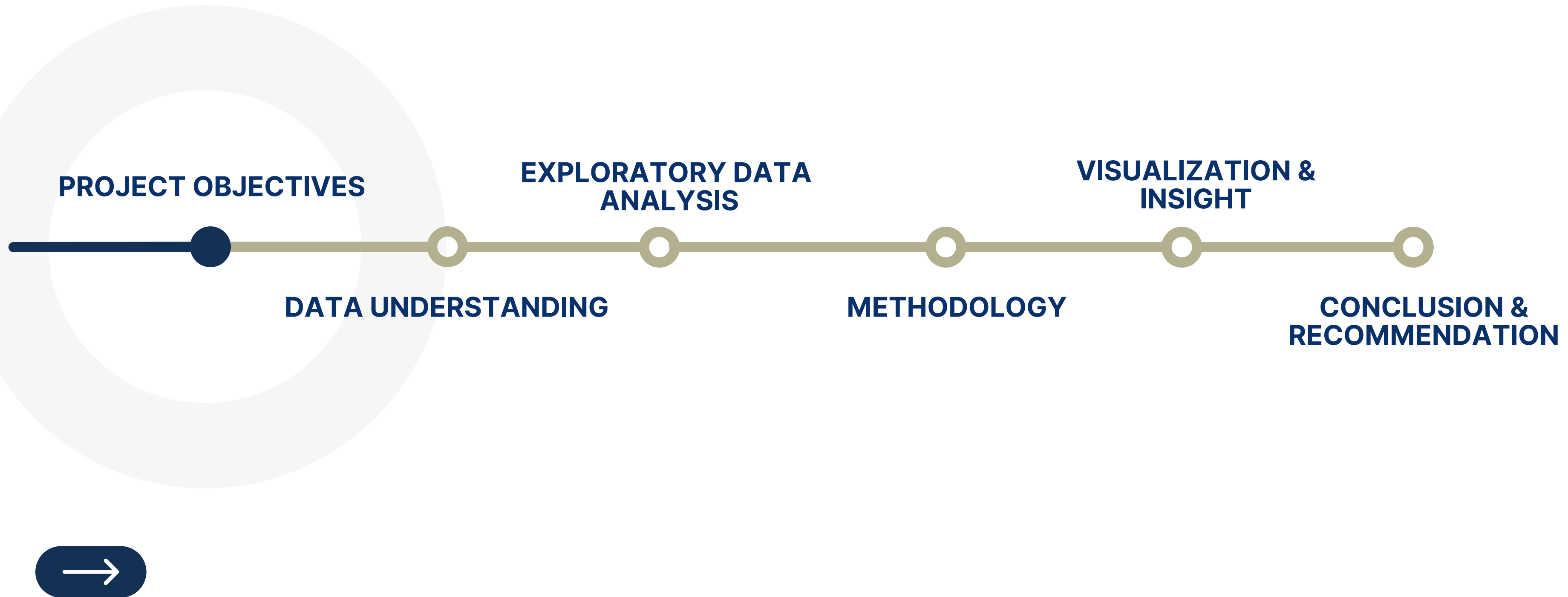
By grouping customers based on the time of their first purchase (cohorts), we can track how likely they are to return and make repeat purchases in subsequent periods.

STAKEHOLDERS

- Business Management Team: Defines strategic goals and ensures alignment with business objectives.
- Marketing Team: Uses insights to refine campaign strategies and improve customer engagement.

PROJECT OUTLINE

LOOKER
E-COMMERCE

PROJECT OBJECTIVES

EXPLORATORY DATA ANALYSIS

VISUALIZATION & INSIGHT

DATA UNDERSTANDING

METHODOLOGY

CONCLUSION & RECOMMENDATION
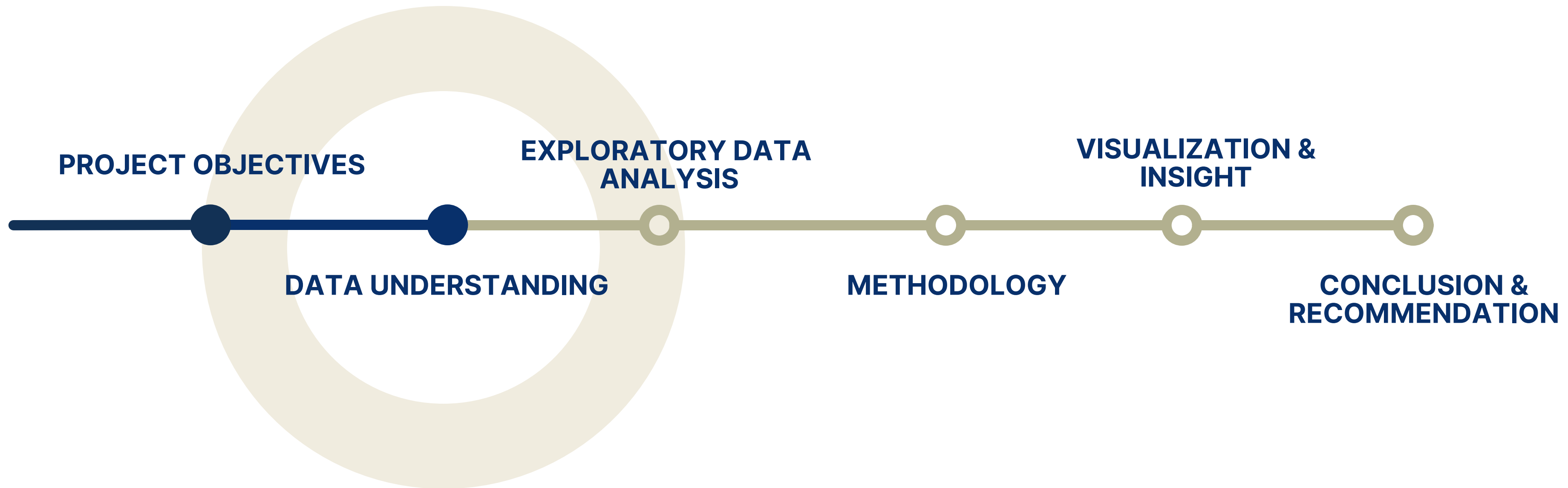
PROJECT OBJECTIVES

To analyze customer loyalty across cohorts to understand how buying behaviour evolves over time. By identifying trends in repeat purchases, we aim to uncover opportunities to improve customer retention, increase customer lifetime value (CLV), and reduce churn.

○ GOALS

01 **Understand customer retention and churn rates within each cohort period**

02 **Analyze sales trends based on orders across different cohort periods**

03 **Identify customer segments that tend to be more active and loyal**

04 **Develop more effective customer retention strategies based on insights from the cohort analysis**

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DATA UNDERSTANDING

Below is a description of each column in the dataset to support further analysis

No	Name of Columns	Description
1.	User ID	Identifier for the user who placed the order
2.	Order ID	Identifier for the associated order
3.	Created at	Briefly elaborate on what you want to discuss
4.	Status	Status of the order item
5.	Country	Country where the user is located

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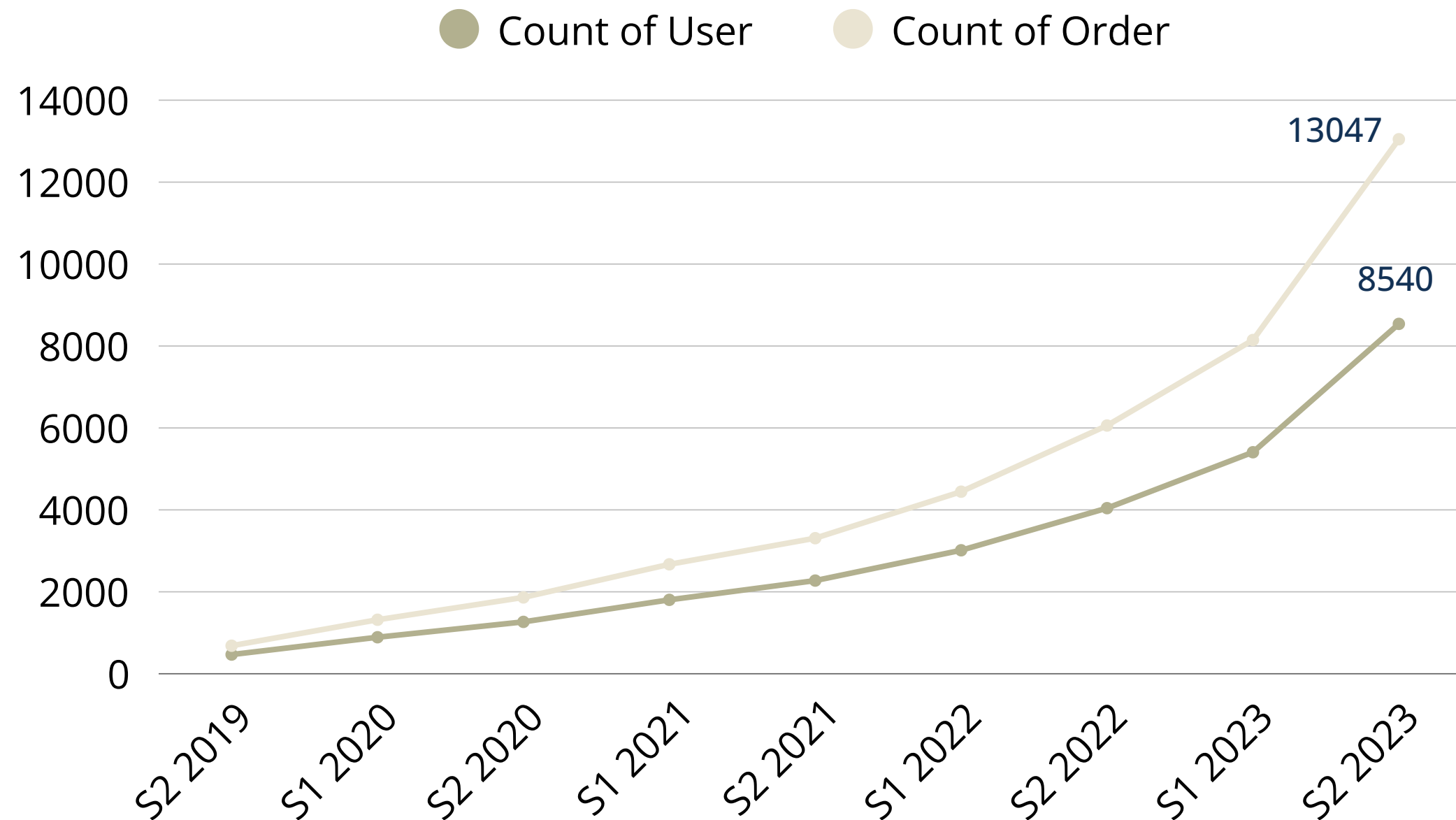**DATA UNDERSTANDING**

METHODOLOGY

CONCLUSION & RECOMMENDATION
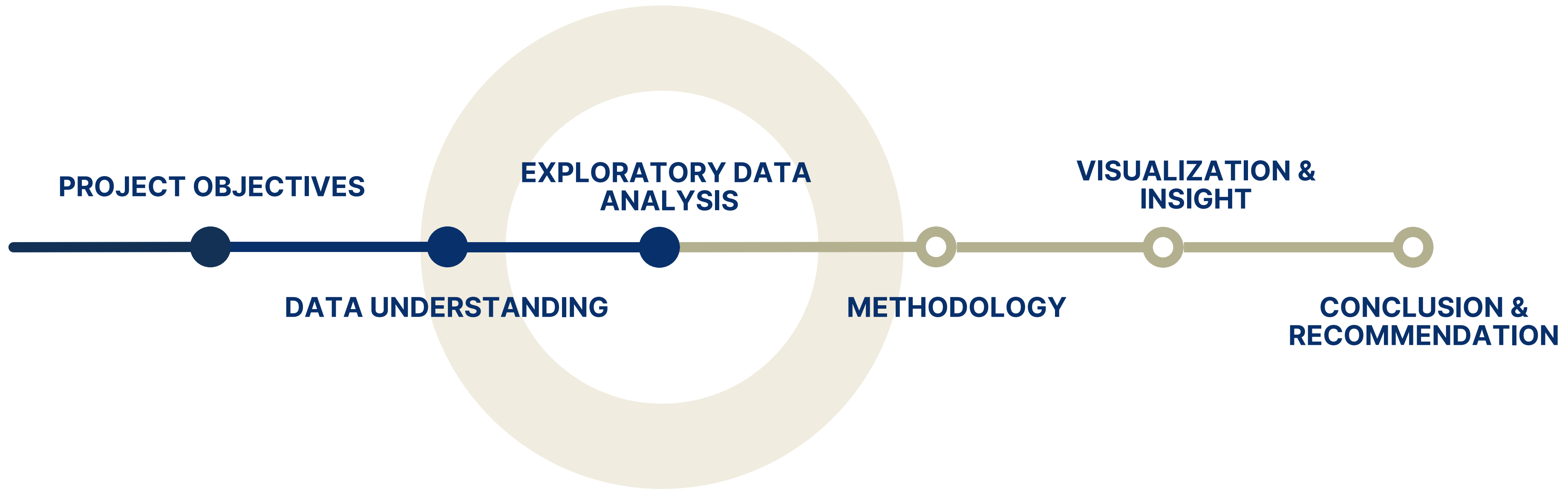
EXPLORATORY DATA ANALYSIS

TREND COUNT OF USER AND ORDER BY SEMESTER

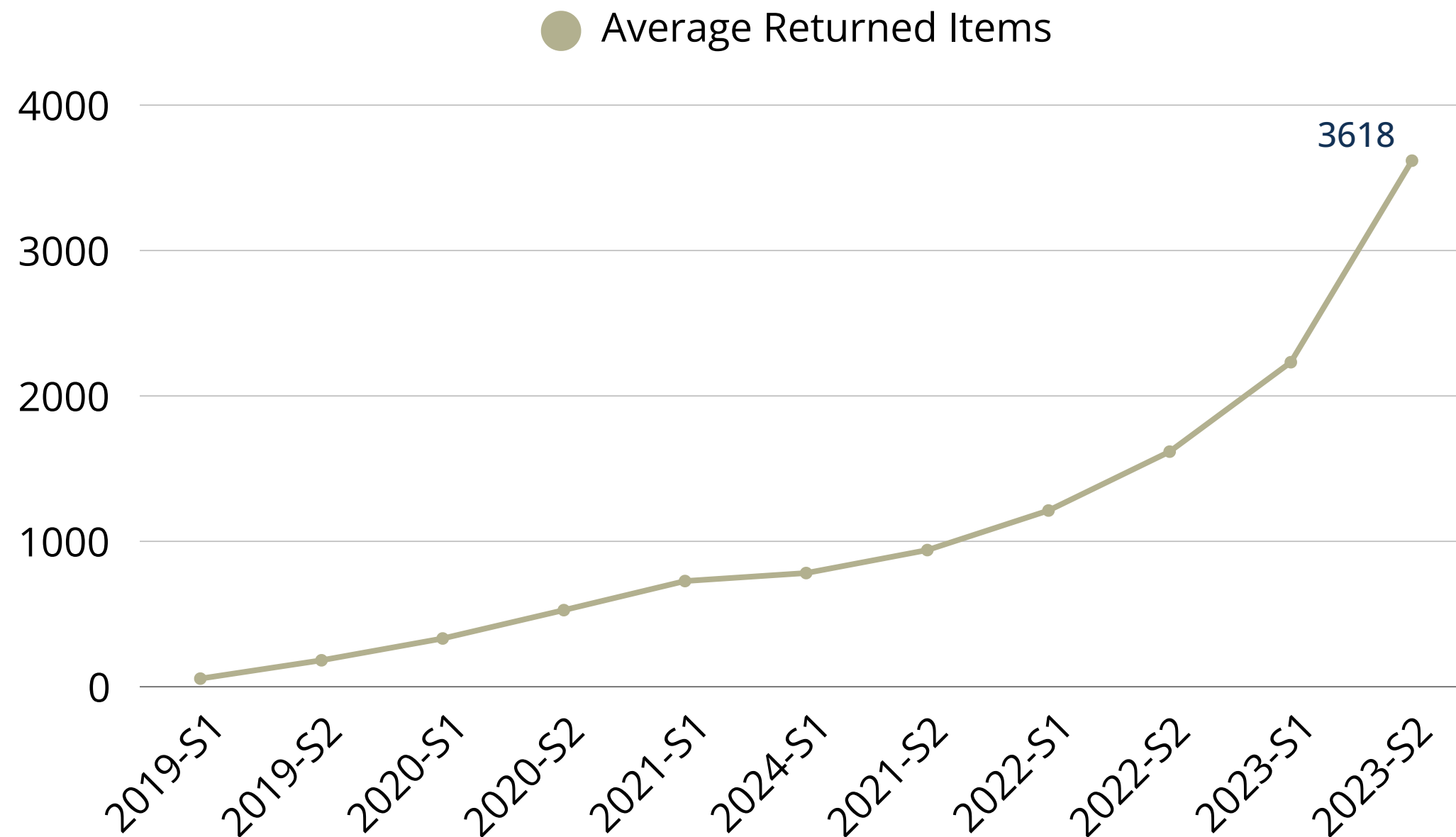- There is an increasing trend in the number of users and orders each semester
- In contrast to the retention rate trend
- New users keep coming to place orders

EXPLORATORY DATA ANALYSIS

TREND OF AVERAGE RETURNED ITEMS
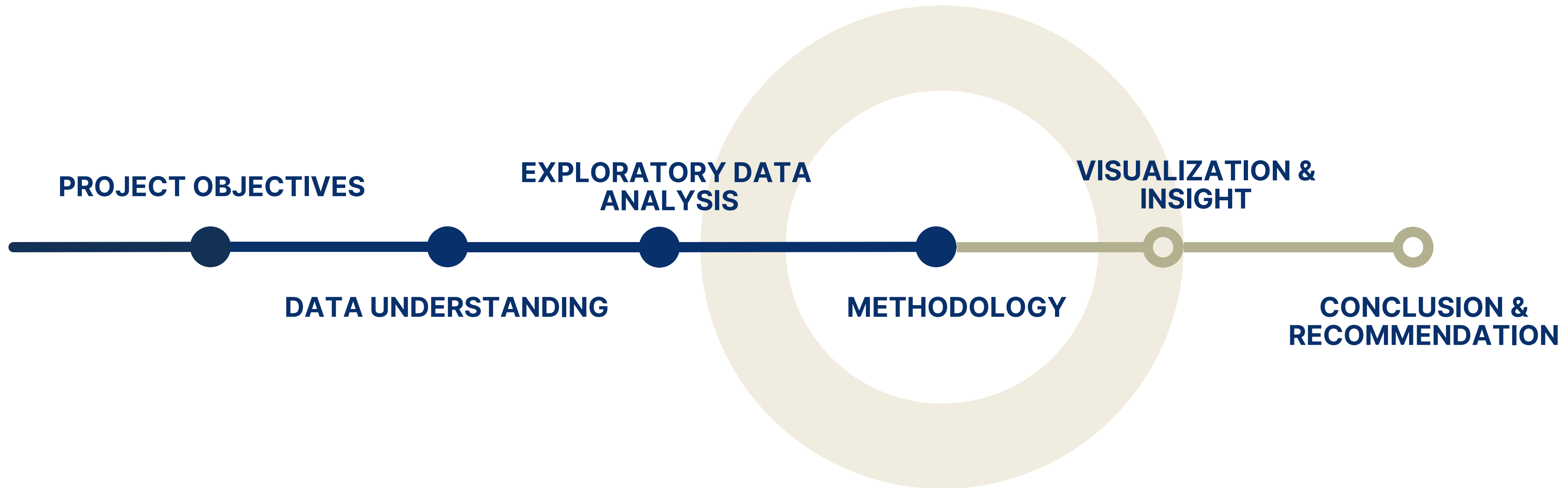
● Average Returned Items

- The average number of returned items has consistently increased from 2019-S1 to 2023-S2.
- This rise appears exponential, especially after 2021-S2.

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RETENTION COHORT ANALYSIS METHODOLOGY

Cohort Determination

User Activity Tracking

Count user calculation

Retention Calculation

Visualization & Analysis

Users are grouped based on the semester they were first active (cohort_smt), for example Semester 2 2019, Semester 1 2020, etc.

Each user is tracked whether they remain active in subsequent semesters (current_smt), thus forming a time distance called semester_distance.

For each semester cohort, the total number of users who were first active in that semester is calculated (cohort_smt = current_smt).

For each cohort, it is calculated how many users remain active in the next semester.

Retention results are visualized in the form of heatmaps or tables to identify trends in retention, loyalty, or churn in each cohort.

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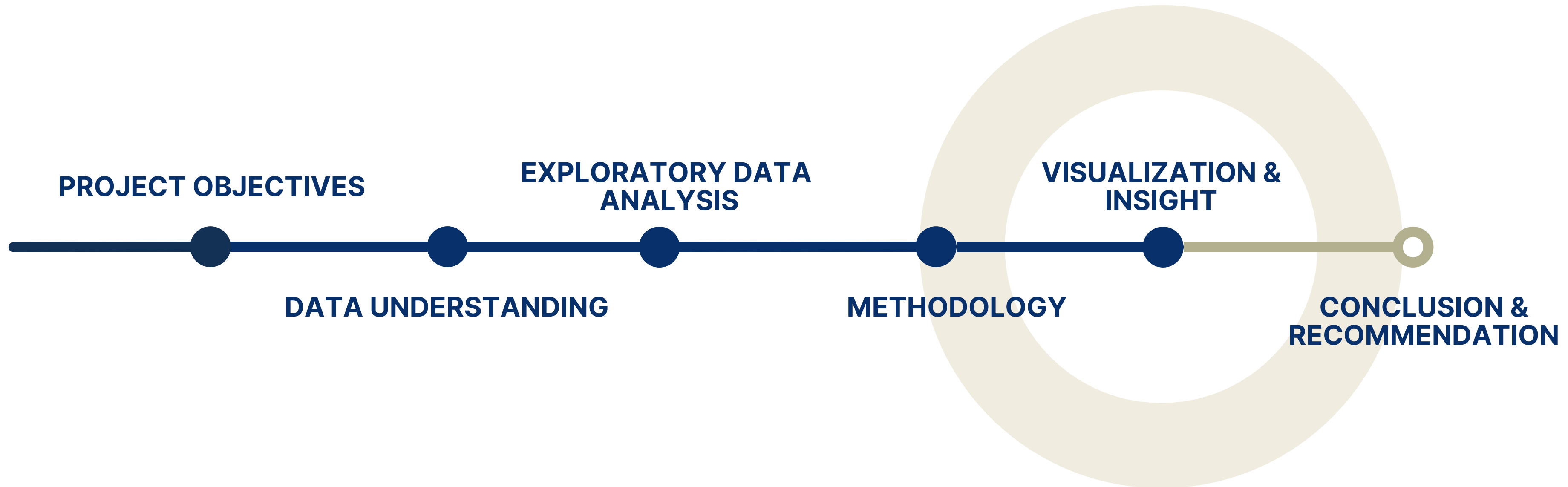
COHORT ANALYTICS

RETENTION RATE BY SEMESTER

Customer retention typically declines each semester.
The company should examine potential changes in marketing or product strategies during these periods that may have impacted retention.

Cohort Semester	0	1	2	3	4	5	6	7	8
2019-S2	100%	4,48%	1,45%	4,19%	2,89%	3,90%	2,75%	4,05%	2,75%
2020-S1	100%	3,78%	4,62%	2,08%	3,47%	2,93%	2,77%	2,54%	
2020-S2	100%	2,99%	2,54%	4,65%	3,43%	3,37%	3,93%		
2021-S1	100%	3,67%	3,09%	3,52%	3,05%	3,56%			
2021-S2	100%	3,50%	3,69%	4,07%	3,53%				
2022-S1	100%	4,93%	4,16%	4,14%					
2022-S2	100%	5,30%	6,01%						
2023-S1	100%	8,13%							
2023-S2	100%								
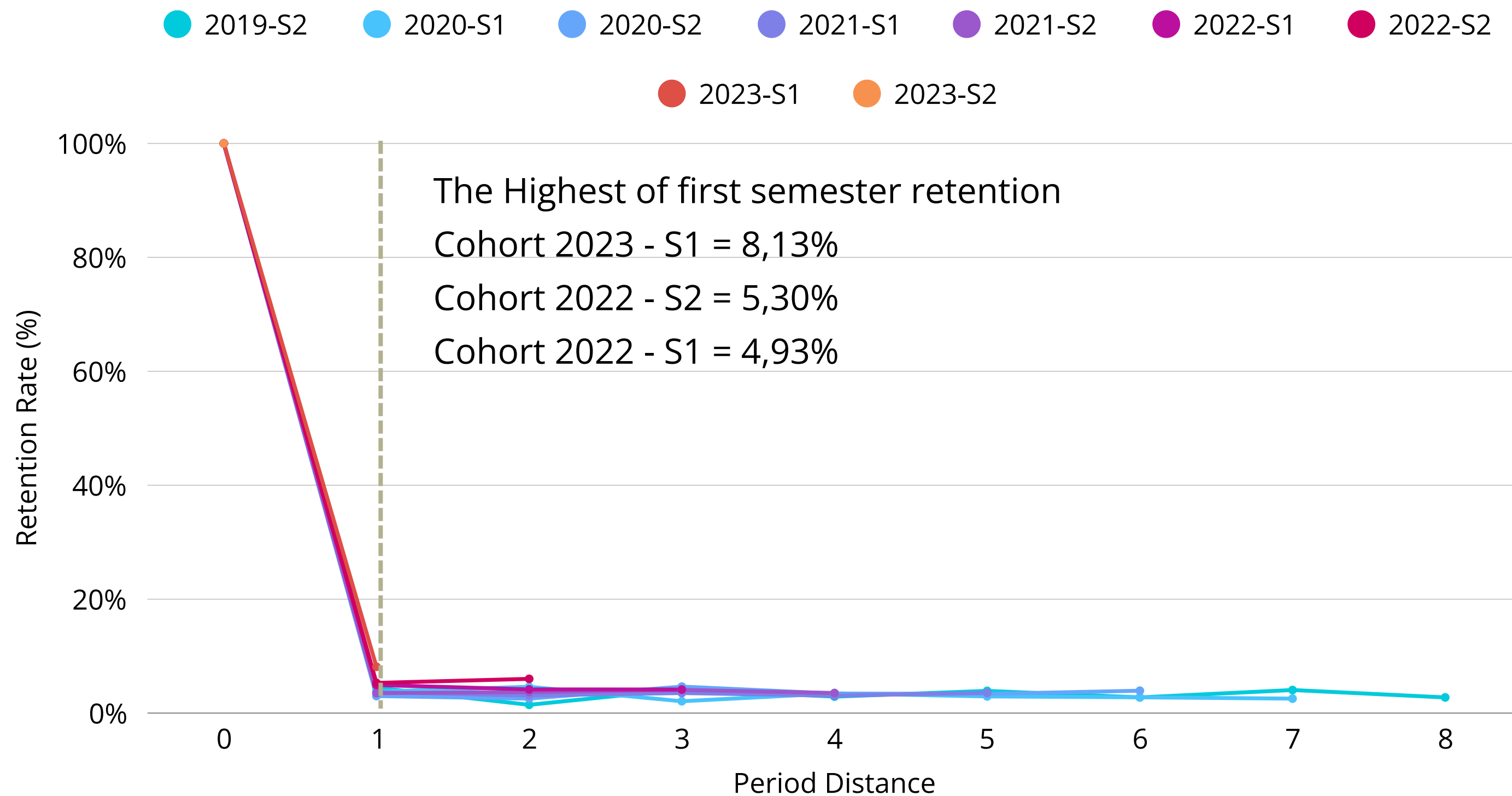
STATISTIC

PERCENTAGE OF USERS REPEAT ORDER

9%
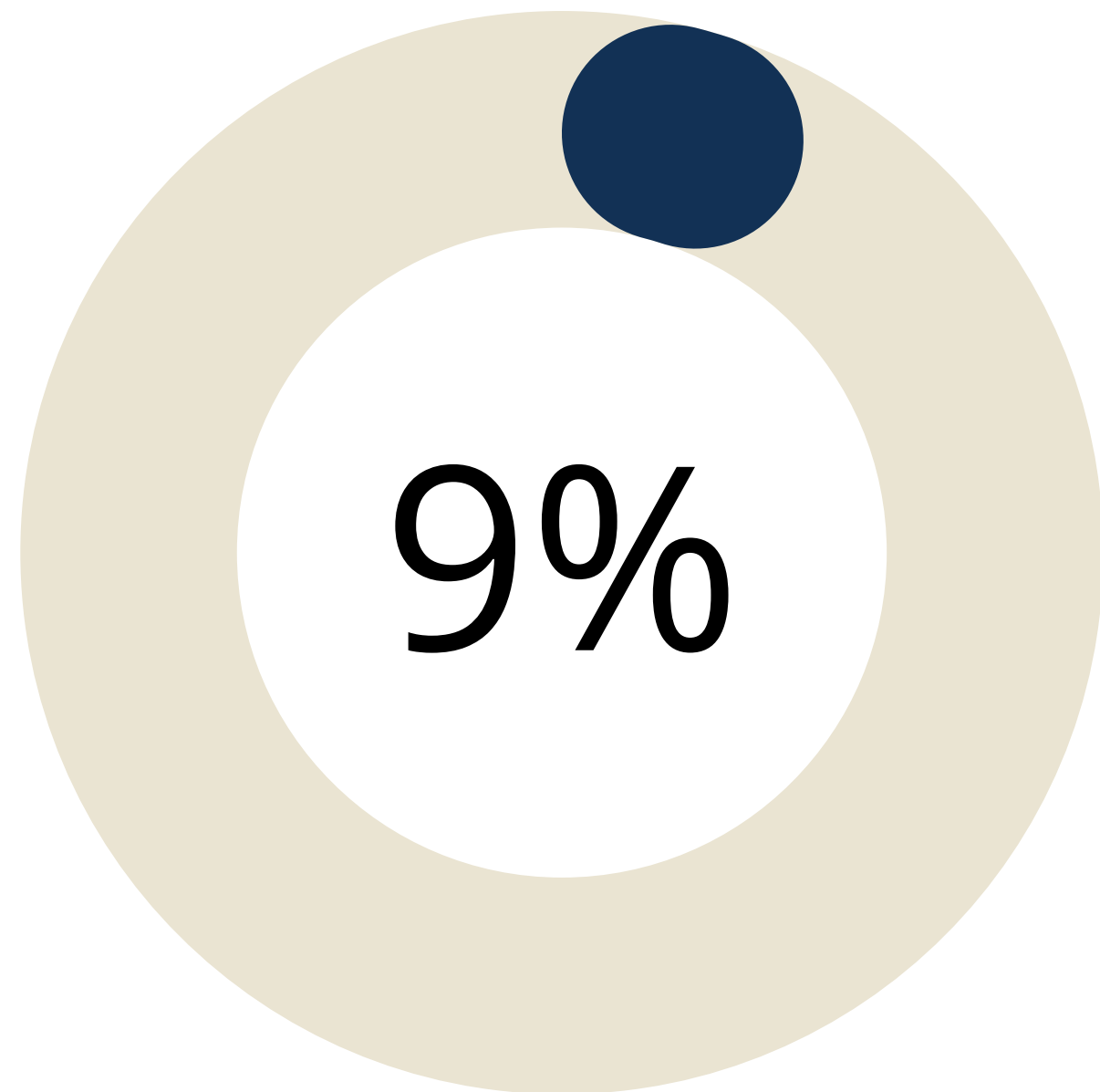
The data shows a low level of customer loyalty. We are working to improve satisfaction and loyalty so that more customers continue to do business with us in the future.

9%	**Looker E-Commerce has loyal users that still do transaction on the products (No churn)**
91%	**Looker E-Commerce lost its loyal users (Churn)**

COHORT ANALYTICS

RETENTION RATE OF UNITED STATES

All three countries show retention drops by Semester 2, but the severity varies. This indicates a problem with long-term engagement, where customers are not staying beyond a few semesters.
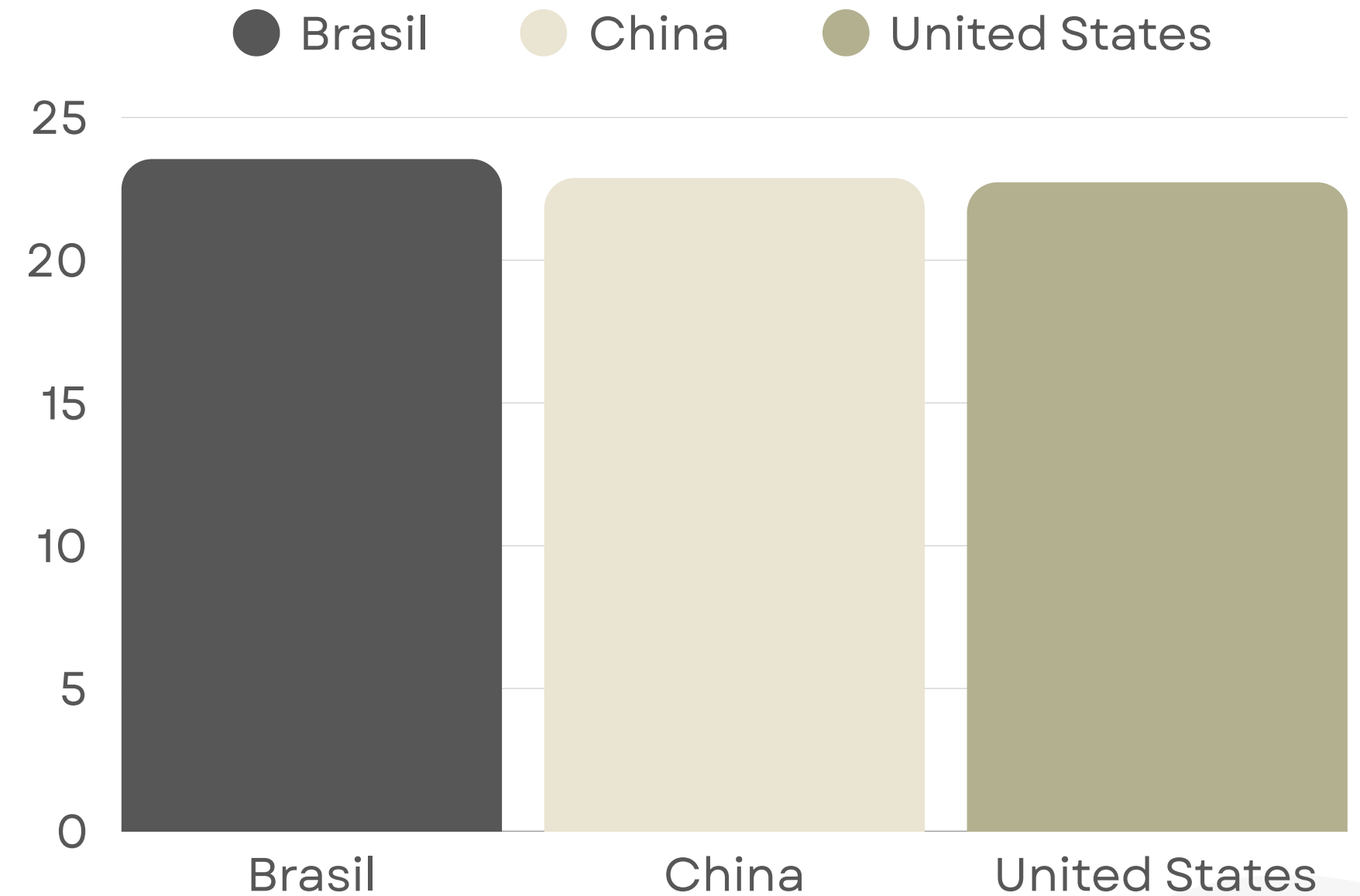
Cohort Semester	0	1	2	3	4	5	6	7	8
2019-S2	100%	5,08%	0,85%	2,54%	3,39%	0,85%	2,54%	1,69%	6,78%
2020-S1	100%	4,26%	2,13%	0,53%	0,53%	3,72%	2,13%	1,06%	
2020-S2	100%	3,32%	1,11%	4,80%	3,32%	2,21%	4,06%		
2021-S1	100%	3,24%	3,78%	3,51%	3,24%	2,97%			
2021-S2	100%	4,34%	3,94%	4,34%	4,54%				
2022-S1	100%	3,79%	3,95%	3,32%					
2022-S2	100%	6,33%	6,45%						
2023-S1	100%	8,06%							
2023-S2	100%								

TOP 3 COUNTRIES

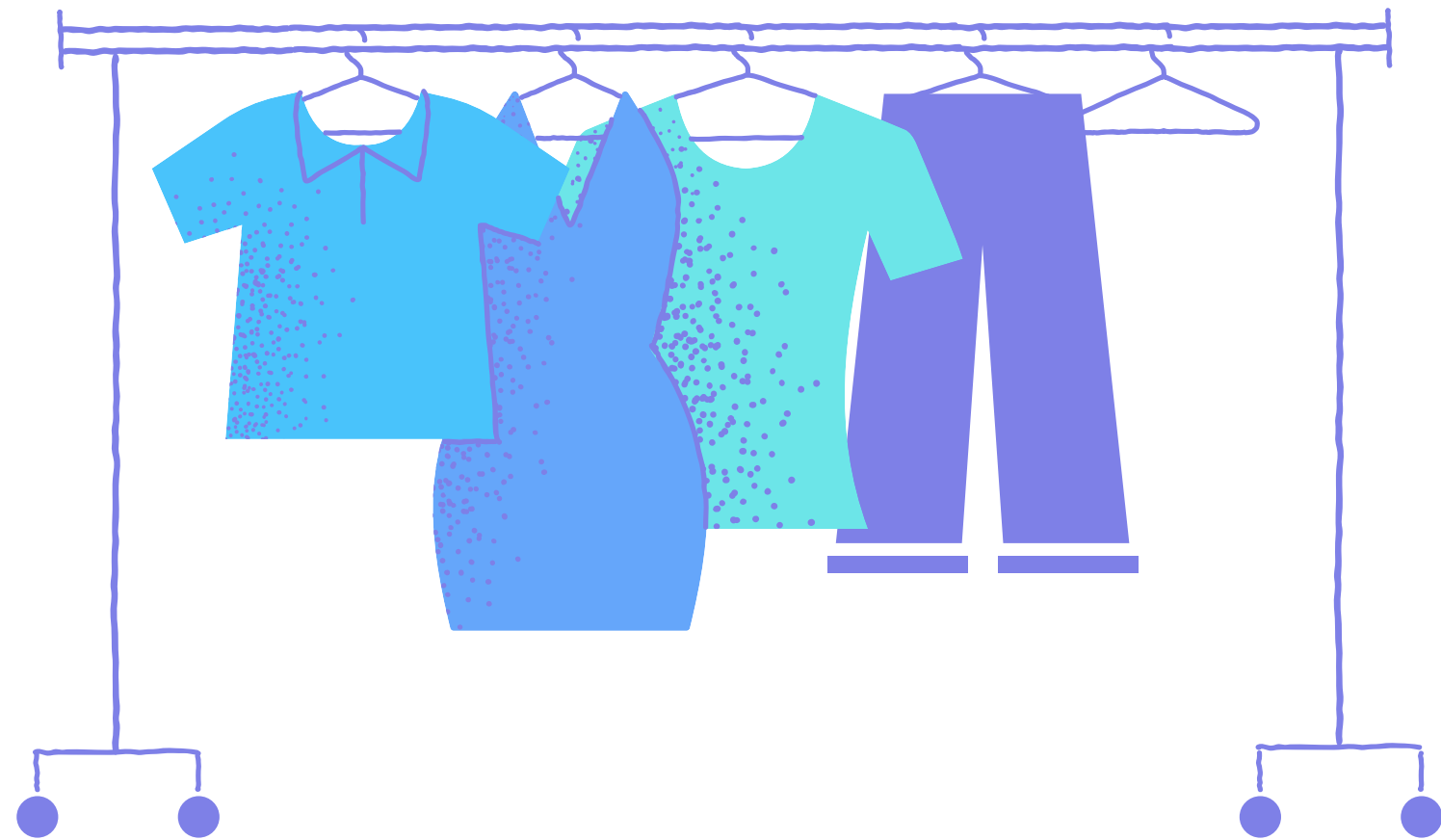## AVERAGE RETENTION RATE OF TOP 3 COUNTRIES

- Brazil consistently shows the weakest performance across all semesters

- China shows a steady decline, it maintains the most stable retention rates overall

- The U.S. starts strongest but experiences the most severe drop

Legend: ● Brasil ● China ● United States

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CONCLUSIONS

01 **Perform Retention Analysis to Analyze Loyality of Various Customer Segments**

02 **Low Level of Customer Loyalty Based on Cohort Retention Analysis**
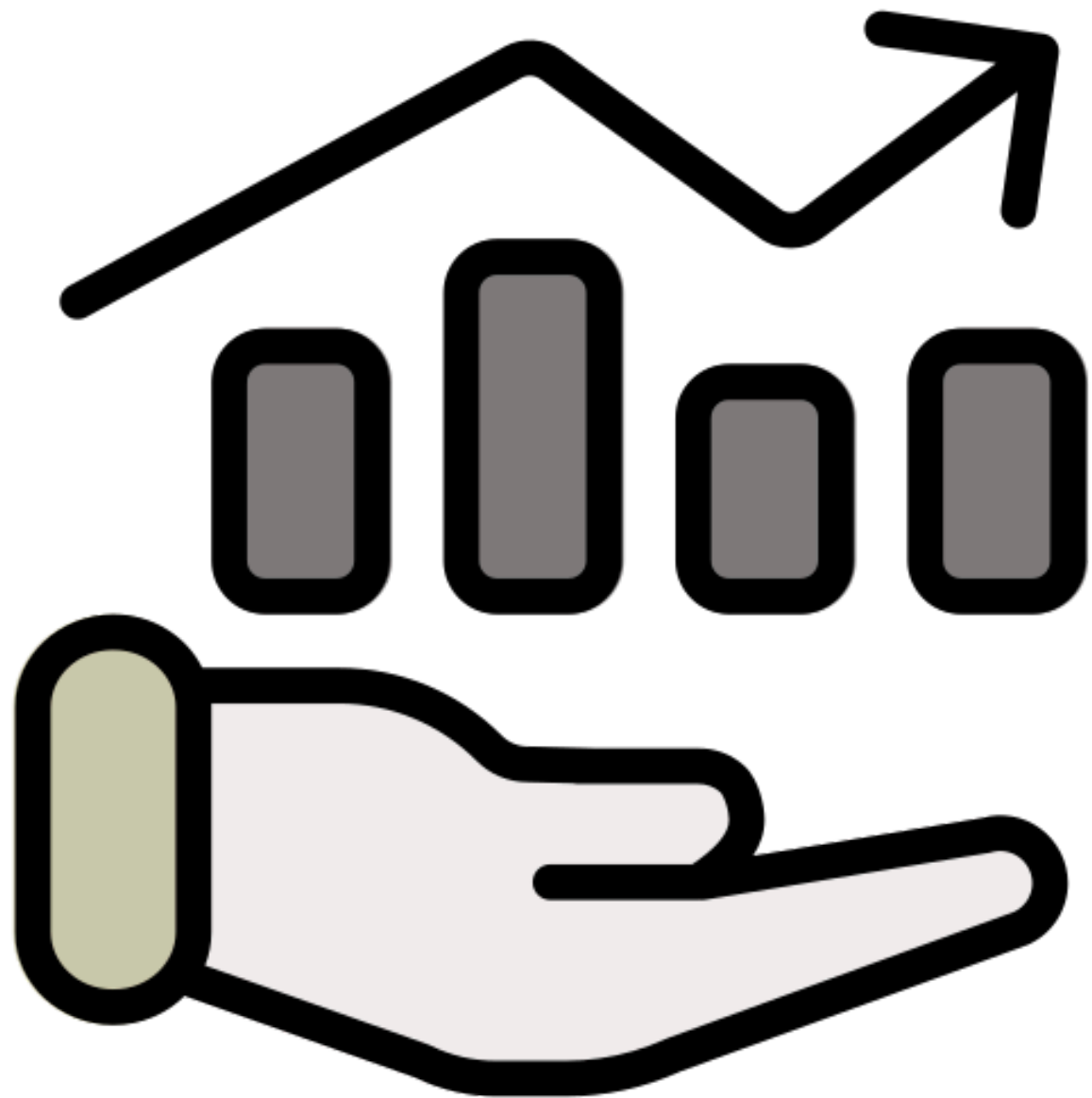
03 **Increasing Count of Order Trend Across Cohort Period**

04 **Carry Out Developed Campaign and User Privilege Strategies Based on the Cohort Analysis**

RECOMMENDATIONS

01 **Attract New Users with Second Purchase Discounts**

Implement introductory discounts for new customers, applied to their initial purchase. This strategy aims to boost customer retention rates.

02 **Enhance Sales through Exclusive Offers for Loyal Users**

Introduce enticing deals exclusively tailored for our loyal clientele. This approach seeks to drive higher sales volume from our repeat customers.

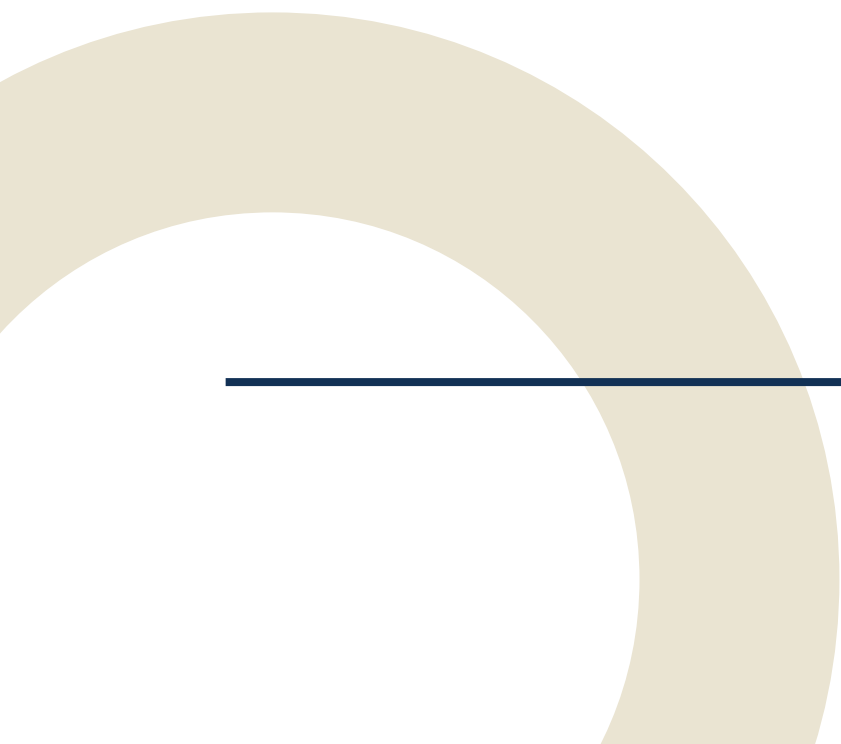**03** **Attractive Promotional Campaign**

Interactive product campaign that could bring an emotional connection between users and the company so that can increase user loyalty.

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THANK YOU

● FOR YOUR NICE ATTENTION