DNSC 6290 Customer Analytics, Fall 2024

Class Project

Decline in Avocci's Conversion Rate

Due: Web 11/4 6pm submitted on BB

Presentation: 11/5 during the class, *Virtual class*

Instructor: Ali Pilehvar, Ph.D.

GW | Business

11/21/2024

Group Project, Due 12-4 6pm Submission

Group project (Presentation Dec 5, 2024)

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8
Daniel Bazargun	Arpine Hovhannisyan	Yu Min Chang	Daniel Miracle Mangiza	Namrata Satpute	Hanna Courtot	Bandana Adhikari	Xilin Yang
Aashiv Shah	Yuxuan Chen	LiWei Huang	Tendai Kupfuwa	Rameen Ridah	Shegufta Tasneem	Yacou Coulibaly	Zeyu Jin
Abhijit Kudtarkar	Nilgun Aslanova	Yi-Zhong Guo	Tinaye Mombeshora	Patrick Zelazko	Binna Suh	Bader Aleidan	Yiying Niu
Arnav Chaudhari	Xiwen Gui	Marc Machado	Idunnu Komolafe	Shubham Patil	Ihsan Wirawan	kason Richard	Tiancheng Wang
Deshna Prakash	Fatima Zahra Manzah	Akshay Thirumal		Mihir Patangia		Aiman Muzaffar	Zineng Mao

Deadline to submit final presentation ppt is Wednesday Dec 4, 5pm at the project folder on BB

10 min each group on Dec 5

7:20-7:30	7:35-7:45	7:50-8:00	8:05-8:15	8:20-8:30	8:35-8:45	8:50-9:00	9:05-9:15

Group Project

Project Title:
Investigating the Decline in Conversion Rates on Avocci

Company Background:
Avocci is an e-commerce platform that specializes in offering high-quality returned inventory from well-known brands across categories such as fashion, home goods, and accessories. Avocci partners with these brands to resell returned inventory—items typically returned due to buyer preferences, wrong sizes, or color choices. To attract customers, Avocci sells these items at a 30% discount off the MSRP (Manufacturer's Suggested Retail Price). With a successful marketing strategy across channels like Google Ads, social media, and direct traffic, Avocci has consistently grown its website traffic. However, recent data shows a worrying decline in the website's conversion rate over the last few weeks.

Problem Statement:
The conversion rate on Avocci's website has been decreasing significantly over recent weeks, but the causes of this trend remain unclear. As an analytics consultant, your task is to investigate potential root causes for this drop. You will analyze available customer behavior data, identify key contributing factors to the decline, and recommend actionable steps to help Avocci regain and improve its conversion rate.

Scope of Analysis:
You will examine various datasets provided, including:

Out of Stock (OOS): Information about items that were unavailable at the time of customer visits.
Traffic: Overall traffic to the website segmented by source.
LandingPageFranchisePDP-Traffic: Data on the traffic to specific landing pages and product detail pages.
CustomerType: Information on customer segmentation, such as new vs. returning customers.
Device: Type of devices used by customers to access the site.
Device-DeviceCategory: Specific categories of devices (e.g., mobile, desktop).
Category: Product category-level data on items available on Avocci.

Assumptions
Assume that the data provided, although limited to two weeks, represents a typical pattern for the analysis. Additionally, assume any missing data points (such as competitor pricing or user satisfaction metrics) would be consistent with industry standards.

What is the ask?

Objective: **Leverage customer acquisition funnel performance data across various channels, devices, customer types, and product categories.**

- **Insights and Trends**: What can be learned from the current status and emerging trends?

- **Conversion Drivers**: Summarize findings on the factors contributing to the decline in conversions.

- **Strategy Proposal**: Present actionable strategies and recommendations to the leadership team to improve conversion rates.

Guidance for Analyzing the Dataset:

- Gain a clear understanding of the data and definitions.

- Identify specific metrics that can reveal the drivers behind the conversion decline.

- Use visuals effectively to create a compelling narrative that conveys the insights clearly.

Some hints on the flow of your presentation and grading

➤ **Provide underlying data and metrics for the identified problem** (5 points)

➤ **Analyze performance across marketing channels, devices, and customer types** (10 points)

➤ **Examine product category performance and inventory levels** (10 points)

➤ **Identify key drivers affecting business questions** (10 points)

➤ **Offer 2-3 recommendations to leadership to support business growth** (5 points)

Deliverable (power point presentation)

➢ **During 10 min group presentation,** you should present your analysis approach, metrics, and trends you observed along Drivers of decline in conversion rates (root cause analysis)

➢ While no specific format is required, keep in mind that you will be assessed on the content, clarity, and conciseness of your presentation.

➢ **The presentation should be in PowerPoint and not more than 12 slides.**

➢ **Finishing up the presentation on time is a MUST! You should be able to present your analysis, findings, and recommendations within your allocated 10 min.**

Project Data

https://drive.google.com/drive/u/0/folders/1rfFFFALOsXxFhenFNthgAfBBrjoWD3Fen

Data Dictionary

WEEK_START_DATE	Week starting date
CUSTOMER_TYPE	Existing vs. Prospect (new)
CHANNEL	Marketing channel
VISITS	Traffic count - Assume visit to be like sessions
VISITS_WITH_PRODUCT_VIEW	Visits with at least one product page viewed
VISITS_WITH_ADD_TO_CART	Visits with at least one add to cart event
VISITS_WITH_CHECKOUTS	Visits with at least one checkout
VISITS_WITH_ORDER_COMPLETE	Visits with at least one order complete event
BOUNCE_VISITS	visits where only one page viewed without any other major action done in the visit
GROSS_SALES	Revenue
ORDER_COUNTS	# of orders
UNITS_ORDERED	# of quantity
PRODUCT_FRANCHISE_NAME	Business unit
VARIANT_VIEWED	# of SKUs viewed in a visit
VARIANT_OOS	# of out of stock SKUs viewed in a visit
DEVICE_CATEGORY	-
PDP_VIEWED	Count of events of product page viewed