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Artea: Designing Targeting Strategies

Alex Campbel, co-founder and CEO of Artea, an online retailer specialized in selling handmade clothing and accessories, was reflecting on the customer dashboard created by the data science team a few months back. There was one figure from the dashboard that struck her the most: 87% of those who visited their website never made a transaction. Engagement metrics such as time spent on the website and referral rates were very healthy, suggesting that their product offering and content were well received amongst customers. Nevertheless, the large majority of customers who landed on their website never made a purchase. Was it a matter of time? Should Artea wait and let customers come back when they were ready to transact? Or should they follow up with those visitors and encourage them to buy? Should they also follow up with those who have purchased in the past to encourage them to purchase again?

Promotional activity at Artea

With the advent of customer browsing data and the development of email marketing tools, Artea could easily target communications and other marketing tools to selected users with a high-level accuracy and cost effectiveness. Because most visitors provided their email to receive the site's newsletter, the company had been personalizing the content of the emails depending on the customer interests (when they created their profile) and updated them depending on their past browsing behavior. This content personalization led to higher engagement from the email channel, resulting in a notable increase in opening and click-through rates.

While website visitors were definitely welcome, the real objective was to get people to buy and generate more revenue for the firm. With that goal in mind, the team started to explore the possibility of incentivizing purchases by sending discounted coupons to registered users. Campbel was mindful of the possible negative consequences of price discounts. Her past experience in fashion taught her that massive discounts could potentially hurt the brand by "educating" customers to only buy on discount and therefore destroy margins. She decided that if they were going to send discounts, it would only be to a selected group of customers, and not to the whole customer base. She chose to start with the customers who had recently visited the website, as it was very likely that these customers were "still looking."

Professors Eva Ascarza and Ayelet Israeli prepared this exercise as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. The exercise is not based on a single individual or company but is a composite based on the authors' general knowledge and experience. Alex Campbel and Artea are fictional.

A/B test

To better understand their customers and their purchase behavior, Campbel decided to run an A/B test. She asked the data science team to identify the users who had visited the website in the last 2 months but had not made a transaction. There were about 5,000 users with those characteristics. The team randomly selected half of those customers and sent them a coupon that offered a 20% discount on the next purchase. The coupon was non-transferable to other users and was valid for one month.

The data

The team collected the number of transactions and total expenditure (net of discount) that customers made during the month *after* the experiment and combined those behaviors with other information the company had collected *before* the AB test was run. These data included the channel of acquisition (i.e., whether the customer had been originally acquired via Google search, social media campaigns, or referral), data on past transactions (e.g., expenditure in past purchases, if any), and information from past browsing behavior (e.g., when was the last visit to the website). The variables included are described in **Table 1**

Table 1

Variable Name	Description	Notes
id	Unique customer identifier	
trans_after	Number of transactions after the experiment	Only available for AB_Test
revenue_after	Total revenue after the experiment	Only available for AB_Test (USD)
test_coupon	Whether the user received a coupon	Only available for AB_Test (=1: Yes; =0: No)
channel_acq	Channel of acquisition for the customer when they first signed up to Artea	(=1: Google, =2: Facebook =3: Instagram,=4: Referral =5: Other
num_past_purch	Number of previous purchases	
spent_last_purchase	Total spent in previous purchase	(USD)
weeks_since_visit	# weeks since last visit	
browsing_minutes	Time spend on website in last visit	(minutes)
shopping_cart	Whether the user added a product to the shopping cart in last visit (but did not transact)	(=1: Yes; =0: No)

Note: The individual-level data for the 5,000 users who participated in the experiment can be found in the "AB_Test" tab of the spreadsheet supplement (HBS No. 521-703). The "Next_Campaign" tab includes the information about another 6,000 users who were not part of the experiment but can be considered for future campaigns.

Designing future marketing campaigns

As the experiment was run and results were analyzed, more users were visiting the website, which created a large pool of potential targets for another coupon campaign. Should Artea continue sending coupons? Should they send coupons to all customers, to none, or only to some customers? If so, to whom? Would Artea be able to increase transactions and revenues with targeted campaigns? By how much? Which proportion of users should Artea target?