

## Artsy Targeted Promotions<sup>1</sup>

### Company Background:

Artsy is an online gallery for local artists to display and sell their artwork. In contrast to its competitors, Artsy focuses exclusively on the greater Los Angeles area, cultivating long-term relationships with up-and-coming artists and developing a loyal, repeat customer base.

Their business model is fairly simple. Local artists partner with Artsy. Any pieces Artsy chooses to display (see below on curating work) are shown on the website. Customers set-up an account on the website, log-in, and browse any available artwork. If they choose to purchase a piece, Artsy handles all of the financial and shipping arrangements for a small commission. Any pieces that are not sold after 12 months are taken down from the website (to reduce clutter.) Over the past three years, the startup has enjoyed continued growth and profits.

According to co-founder Gary Lagosian, Artsy's success is predicated on two key features: First, unlike other online art marketplaces, Artsy curates all pieces shown on its website. Curating artwork has a long history in the brick-and-mortar gallery business. Its purpose is to ensure not only that all displayed artwork is of high-quality, but also that the artwork and artist reflect the culture and vision of the gallery. Lagosian spent many years in the gallery business before co-founding Artsy, and pushed for the company to adopt a similar model. The results have been unequivocally successful. Artsy quickly established a reputation for selling impeccable art that captured a unique perspective of the urban, non-Hollywood side of LA. According to Lagosian, "Artsy's the place to go to find that one-of-a-kind piece dripping with gritty, LA flavor." As Artsy's reputation grew, so did the number of up-and-coming artists looking to sell their work through the website.

The second feature of Artsy's success is its product assortment and pricing. Artsy offers a variety of pieces at different price points. In contrast to traditional galleries that showcase expensive works targeted at wealthy customers, Artsy displays a number of moderately priced pieces aimed at middle-income art lovers. This affordability significantly increases Artsy's potential market. Moreover, by focusing exclusively on the greater LA area and not maintaining a brick-and-mortar gallery, Artsy has avoided high overhead costs associated with shipping, inventory and logistics. The result is that Artsy can afford to charge a fairly small commission on all pieces it sells. (See Fig. 1 for details.)

	<u>Paintings</u>	<u>Jewelry</u>	<u>Mosaics</u>	<u>Sculpture</u>
<b>Type</b>	8%	8%	12%	12%

Fig 1: Average commission per piece by category of artwork.

### To Promote or Not Promote:

Artsy's second co-founder Richard Chaderson spent many years working in e-tailing before joining Lagosian to create Artsy, and is, consequently, a firm believer in using analytics and data to drive the business. While Chaderson entertains long-term goals of one-day

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incorporating personalized recommendation systems and revenue management at Artsy, most recently he has been toying with the idea of offering simple targeted promotions. He argues:

*Think about receiving a 10%-off coupon in your email. Maybe that coupon convinces you to visit our site, and when you're there, because things are just a little bit cheaper, maybe you make a purchase. Maybe you even buy something that's a little more expensive than you normally would have... Increasing site traffic and increasing revenues are only good for Artsy.*

Lagosian strongly disagrees:

*People don't buy art because it's cheap. They buy it, because it speaks to them. If you offer a 10%-off coupon to customers, all that will happen is that customers that would have bought the same piece of art without the coupon will now use the coupon, and your revenues will go down by 10%.*

To settle the debate, the co-founders agreed to run a small A/B test where approximately 20% of their customers were given a 10% off coupon in their email (expiring in one month). These 20% of customers were selected at random from those customers that had made a purchase within the last 2 years. After one month, Artsy collected all data on revenues from customers that were offered the coupon and those that were not.

Chaderson has hired you to help him analyze the data. Beyond the question of whether or not promotions like the 10%-off coupon improve revenues, Chaderson has deeper questions about how to best structure a promotion program at Artsy. Maybe offering a 10%-off coupon is ineffective, but a different type of promotion might be more effective. More generally, how can the data Artsy now has be used to improve the business? Should they be collecting different data?

The use of analytics in the retail art industry is fairly undeveloped, and Chaderson suspects that opportunities abound. What he needs now is actionable business recommendations with rationale and evidence clear enough to win-over his skeptical co-founder.

#### **Assignment:**

With your team, you should analyze and discuss the accompanying datasets. (These are described more fully below). Based on the data and your analysis, write a 3-5 page report summarizing:

- *Your recommendation regarding the promotion campaign.* Should Artsy offer the 10%-off coupon to all, some, or none of its customers? Which ones? Should it adopt some other type of promotion? Why?
- *Other business recommendations based on insights from the data.* How can these data be used to improve Artsy's profits? Your recommendations should be actionable and evidence-based.

You may include a supplementary Appendix (beyond the 3-5 pages) with graphs, plots, charts or other visuals to support your analysis. Remember: effective business documents are concise and compelling.

In addition the 3-5-page report, your group will present its findings in a 10-15 min. presentation in class. (If you use powerpoint slides (or other visuals) in your presentation, you should include them in the Appendix of your report.) After your presentation, I will moderate

a 5-10 min discussion in the class to field questions and comments your peers have on your analysis.

Not all team members need to participate in the presentation. If not all of your team members participated in the presentation, I may use this time to ask specific team members (who did not present) questions about the presentation. Their responses will affect the entire team's performance.

Overall your grade will be based on your report, your presentation, and the quality of your feedback to your peers' presentations. (See the rubric for details.) You will be assessed not only on the accuracy of your analysis, but its quality and depth, and the clarity with which you explain your recommendations, the analytics tools used, and the evidence supporting your position.

**Discussion Questions:**

To get you started, it may help to investigate and discuss the following questions within your team:

1. What do typical customers at Artsy look like? Are there natural market segments?
2. Can hypothesis testing be used to disprove Lagosian's claim about promotions? Are there confounding variables? Can you use the data to check?
3. How big an up-lift in revenues would you want to see to make the promotion campaign worthwhile?
4. Are there other ways to structure the campaign? Does everyone need to get coupon? Who would you pick to get a coupon ideally?
5. What are the business consequences of introducing promotions at Artsy? Might there be long-term effects on the brand?
6. Are there any other insights you can glean from the data that might help the business? In an ideal world, what other data might you suggest tracking at Artsy? Why?

Warning: A good write-up will NOT simply be a laundry-list of responses to these questions. Your goal is to provide useful analysis to Chaderson to guide decision-making. Listing responses to these questions is not useful analysis.

**Data Description:**

All data files are available on BB.

**Artsy.csv**

This file contains demographic and revenue for each customer.

- CustID – A unique id number used to identify the customer
- JoinDate – The date which the customer first joined Artsy
- DOB – The customer date of birth.
- Gender
- Visits – The number of visits the customer made to the website in the last 3 months
- Paintings – The amount in dollars the customer has spent on items in the category Paintings in the last month.
- Jewelry – Similar to above.
- Mosaics – Similar to above.
- Sculpture Similar to above.

For the avoidance of doubt, we stress that these last four variables correspond to revenue, not the commission earned by Artsy. In other words, if a customer purchased a painting priced at \$100 from the website, this would be listed as an entry of \$100 in the database. However, Artsy would only earn  $8\% * \$100 = \$8$  in commission on this purchase. Similarly, if the customer applied a 10%-off coupon to the same painting before purchasing, we would see a \$90 entry in the database, and Artsy would earn  $8\% * \$90 = \$7.20$  in commission on this purchase.

**Coupon.csv**

This file contains the Customer ID of each of the customers that was offered a 10%-off coupon by email.