**Exercise 7**

**Email Analytics**

An ecommerce marketing strategy often involves communicating with customers and potential customers over email. Email distribution lists are put together using methods including online and offline signups, and in person solicitations. In some cases, email lists may be purchased from specialized vendors. The objective of these efforts is to put together high-quality lists with accurate names and addresses, and finely targeted to reach a clientele that may be interested in your products and services.

Once a distribution list is generated, a marketing campaign is designed including text and visuals that will appeal to your target demographic. The subject lines need to be thoughtfully designed to encourage users to open the email and interact with the content. Links are included in the body of the message that will lead customers back to your website. The URLs for such links should include [tracking parameters](https://support.google.com/analytics/answer/1033867?visit_id=0-636239943700635853-3991027817&hl=en&rd=2) to allow Google Analytics to track the user back to the specific campaign and message. Marketers also choose the number of blasts (separate mailings) to be included in the campaign, and the timing of each blast.

Once an email campaign is designed, marketers choose a distribution service. Smaller firms might choose to do this internally, but specialized third-party services such as Mail Chimp are available for more sophisticated campaigns. These services may charge a per campaign initial set-up cost (fixed cost) and a “pay as you go” charge per email sent out.

Marketers carefully assess the cost effectiveness and returns on each campaign to ensure that each marketing dollar is well-spent. Several metrics are used to measure the effectiveness of campaigns.

**Email marketing metrics**

The first metric that needs to be tracked pertains to the quality of the distribution list. A high-quality list will have accurate and current email addresses; however, realistically, a percentage of addresses are likely to be undeliverable because of wrongly entered addresses, or defunct email services. The delivery rate measures the quality of the database.

Delivery Rate (%) = # of emails delivered \* 100 / # of emails sent

Once emails are delivered to a potential customer, a fraction of them will be opened. Emails with poorly designed subject lines, or targeted to uninterested customers may not be opened. Therefore, the Open Rate implicates both design elements as well as the targeting of the campaign.

Open Rate (%) = # of emails opened \* 100 / # of emails delivered

Data to calculate the Delivery Rate and the Open Rate are available from the email server. Once the email is opened and the customer views the content, a fraction of customers may decide to click on the URL included in the text of the email. The customers’ choice to click on a URL (or not) depends on the trustworthiness of the vendor, the quality and relevance of the included message and the targeting of the campaign – all message features. This is measured by the Click-Through Rate (CTR). For email campaigns two CTRs are often measured: a Click-to-Open Rate and a Click-to-Delivery Rate.

Click-To-Open Rate (%) = # of URL clicks / # of emails opened.

Click-To-Delivery Rate (%) = # of URL clicks / # of emails delivered.

Both are considered CTRs, but they are calculated differently. The CTR may be measured as a fraction of emails opened, or as a fraction of emails delivered. Be sure to look up how CTR is defined by your firm or campaign and use the appropriate definition.

Each user who clicks on a URL in an email campaign becomes a visitor to your website. Once a visitor reaches your site, data on the user’s subsequent interactions is collected by your website’s web analytics provider. Metrics such as bounce rate, conversion rate and average order value (AOV) are calculated for each user. But the tracking parameters included in the URLs allow the source of the traffic (the email campaign) to be tracked and attributed.

**Problem 1**

Public radio station WPSU has a membership drive aiming to get listeners to sign up as members for $25 annual subscription. As reward for signing up WPSU provides a coffee mug as a souvenir, which costs $7, plus mailing cost of $1. (25-8=17)

An email campaign using Mailchimp has an initial set-up cost of $10,000 and a pay-as-you go price of $0.03 per email. It receives a delivery rate of 90%, a click-to-delivery rate of 20% (note: CTR as a fraction of deliveries), and a conversion rate of 25%.

**Q1: If 5,000 emails were sent, calculate the email campaign’s profitability. What do you infer about the cost effectiveness of the campaign at the scale initially chosen for it (# of emails = 5,000).**

Number of emails sent: 5000

Number of emails delivered: 5000 \* 90% = 4500

Number of URL clicks (number of visitors): 4500\*20% = 900

Conversion: = 900 \* 25% = 225

AOV = 25-8 = 17

Revenue = 17 \* 225 = 3825

Cost = 10000 + 0.03\*5000 = 10150

Profit = Revenue – Cost = 3825 – 10150 = -6325

Your campaign is actually losing money due to the cost effectiveness is super low because it is not earning money.

Use Microsoft Excel to create a graph of total campaign costs and net returns (subscription revenues – costs of souvenirs and mailing). Assume that campaign parameters such as the delivery rate, the click-to-delivery rate, and the conversion rate remains unchanged with the scale of the campaign.

\*To create the chart follow these steps: 1) select columns A, B, C and click insert, chart, line, 2) right click on the chart you created and click “select data”, 3) for chart data range, select columns B and C, 4) for the Y values, select column B, 5) for the horizontal (category) axis, select column A.

**Q2: Using excel, what is the minimum scale (# of emails to be sent) for the campaign to break even? Identify the breakeven volume on the graph.**

The breakeven volume = ~13600

**Q3: Now solve for the minimum scale (# of emails to be sent) arithmetically for the campaign to break even using the formulas we have learned in class.**

Revenue = N\*0.9\*0.2\*0.25\*17 = 0.765\*N

Cost = 10000+0.03\*N

Revenue = Cost

0.765\*N = 10000 + 0.03\*N

0.765\*N – 0.03\*N = 10000

0.735\*N = 10000

N = 10000/0.735 = 13605