Synergy Media - Advertisement Strategic Planning

Through Data Analysis

Team 1G：

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Experiment Introduction

With **4431 observations**, Synergy conducted two experiments to try to understand the impact of different elements on advertising success.

- The two experiments documented the factors below:

Ad type	**Placement**	**Body**	**Click through rate**
Category	**Keywords**	**Age mean**	**Click per dollar**

- Based on the data provided by Synergy, **we calculated two other factors** to determine if the advertisement is successful, which are called **Score, and Extend**

Project Mandate

Help Synergy with online marketing strategies through data analysis.

Objective 1

- To determine themes followed by the successful advertisements in the experiment

Objective 2

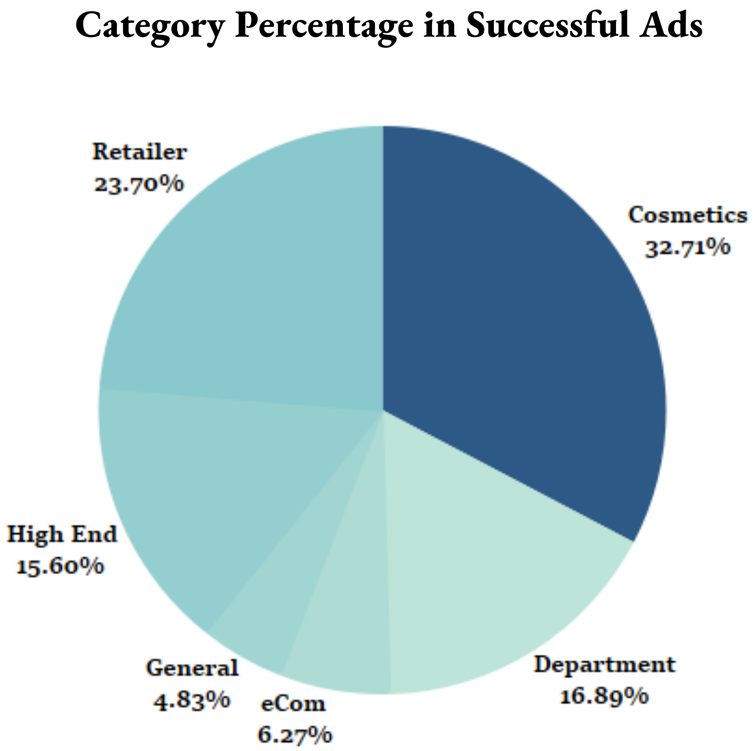
- To compare the results of both experiments
- To determine if E-commerce advertisements engage with the younger population more in the new experiment

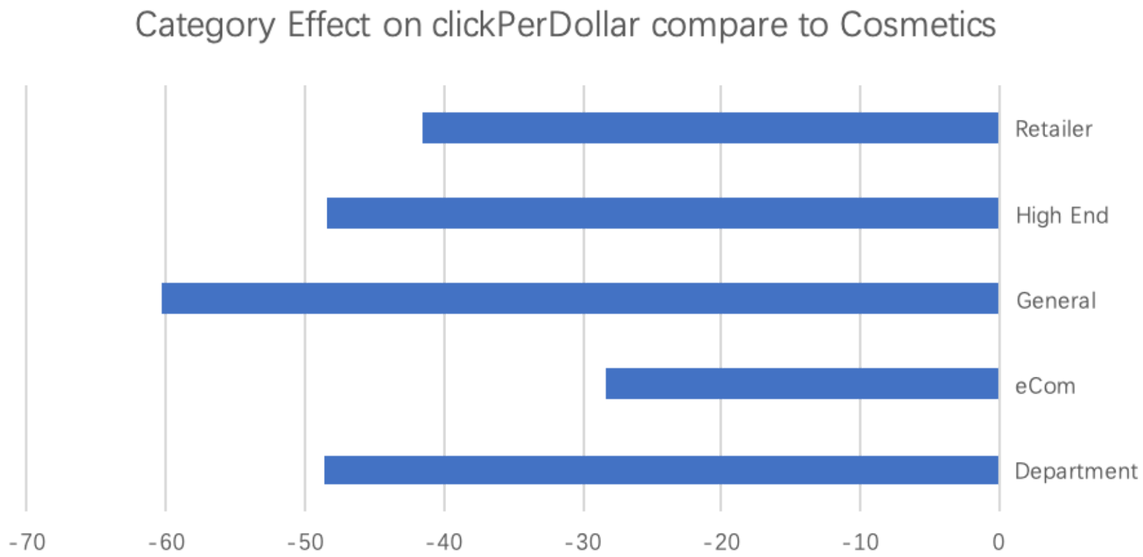
Highlights

- **Cosmetics** is the category with the most successful advertisements, followed by Retailer.
- **Photo Post** is the most efficient Advertisement Type.
- **Mobile** is the best placement for advertising.
- **Action Words** like "Share" and "Like" in the Ads' body engage the audience more.
- In the E-commerce segment, Ads from **Experiment 1 should target the older audience**, and those from **Experiment 2 should target the younger audience.**

Key Factors that Determine Possibility of Being Successful

Category





Cosmetics is the category with the most successful ads.

Cosmetics is the category with the most positive effect on clickPerDollar.

Key Factors that Determine Possibility of Being Successful

AdType and Placement

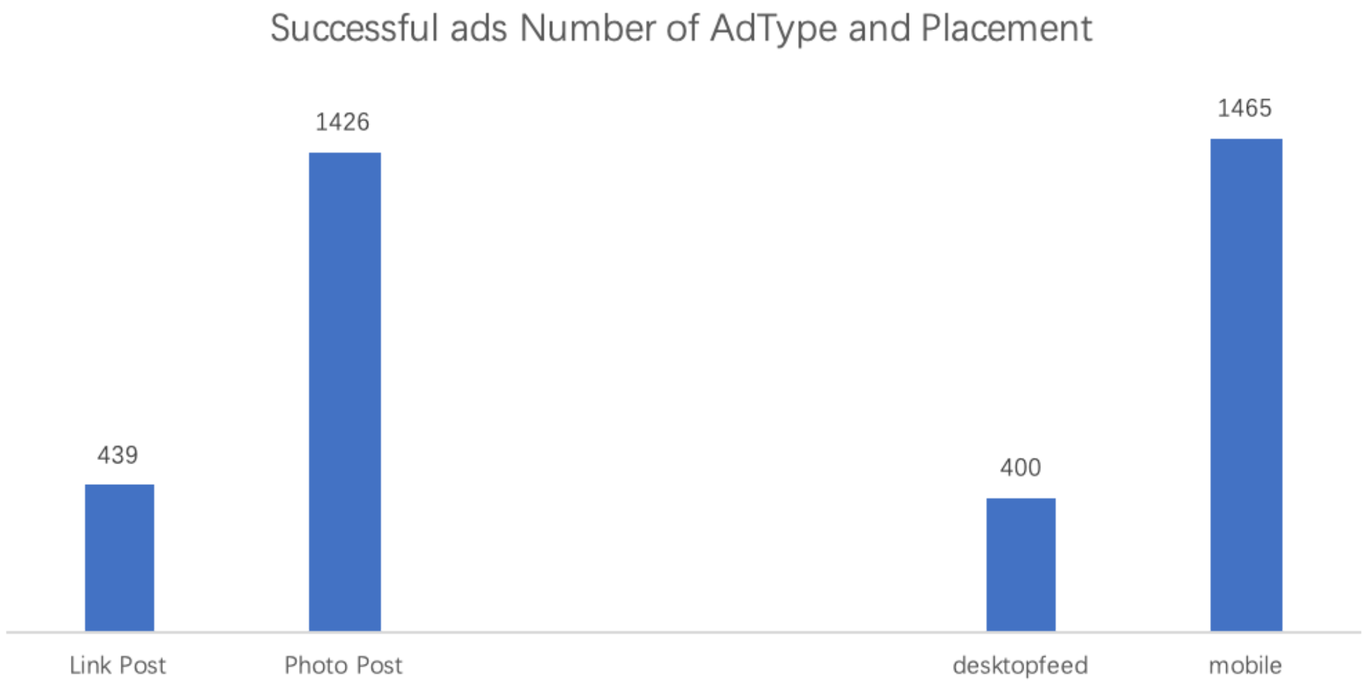


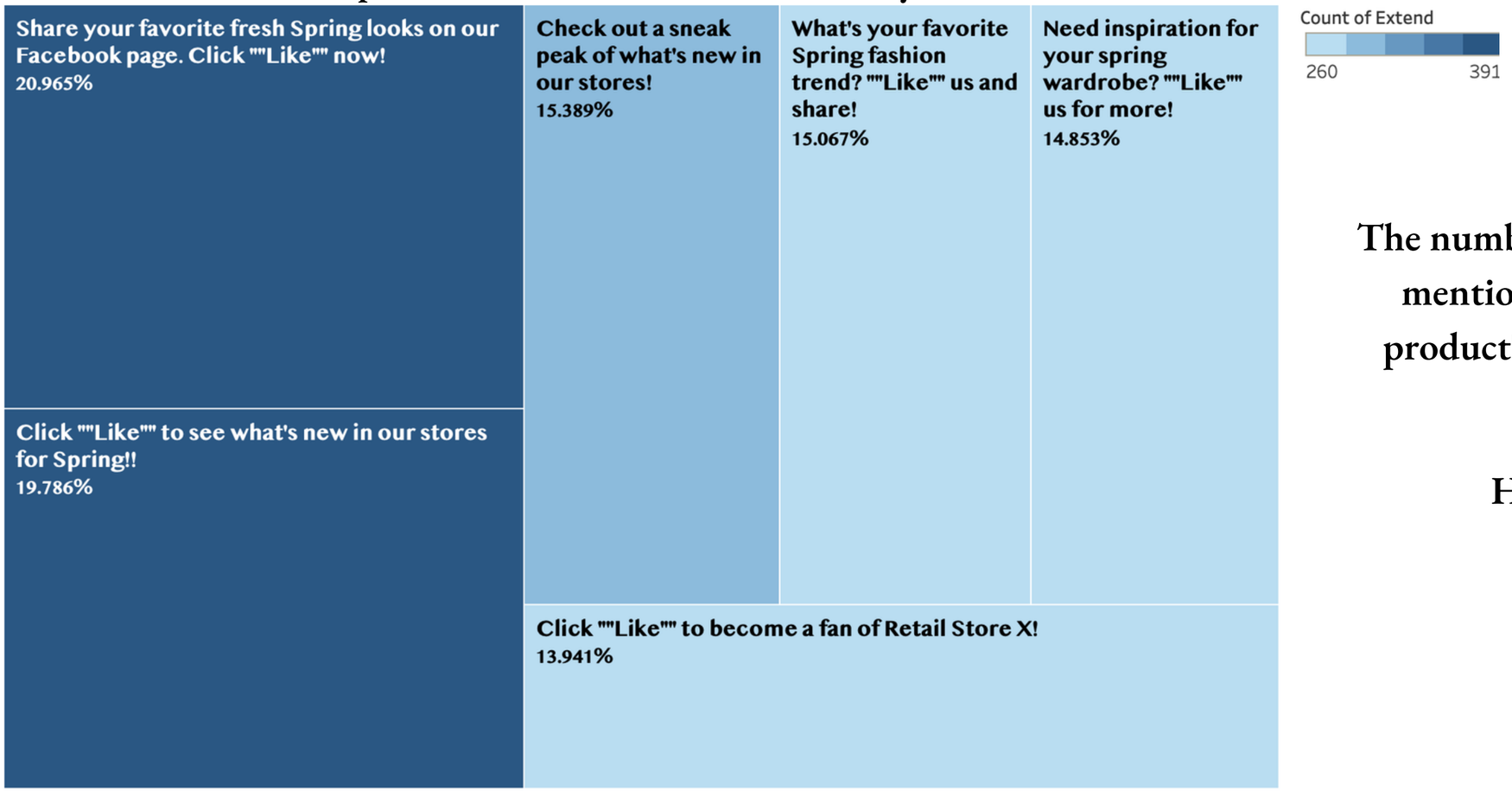
Photo Post can increase by 6.90 clicks per dollar than Link Post.

Mobile can increase by 33.70 clicks per dollar than Desktopfeed.

Key Factors that Determine Possibility of Being Successful

Body

Proportions of Each Successful Ads 'Body'



The number of successful ads that mentioned "share" and "new product" in the body is higher.

Highly engaging

&

Useful

Which Advertisement to use to Target a particular Age Segment ?

Older population consisted of 94.8% of successful E-Commerce Ads in Experiment 1

Age Group	Total Succesful E-commerce Advertisements
27	**2**
34.5	**4**
44.5	**45**
54.5	**66**

Younger population **did not** engage with the advertisements

111 out of 117 successful ads had an average age of the targeted audience from older population

117 successful E-Commerce advertisements in Experiment 1

Which Advertisement to use to Target a particular Age Segment ?

The younger population consisted of 89.6% of successful E-Commerce Ads in Experiment 2

Age Group	Total Succesful E-commerce Advertisements
27	78
34.5	34
44.5	13
54.5	0

113 out of 125 successful ads had an average age of the targeted audience from older population

Older population **did not** engage with the advertisements

125 successful E-Commerce advertisements in Experiment 2

Experiment 1 Advertisement for Older Audience, Experiment 2 Advertisement for the Younger

Experiment 1	Experiment 2
111 out of 117 successful E-commerce Ads from Average Age Group 44 -55 years	113 out of 125 successful E-Commerce Ads from Average Age Group 27-34.5 years
84 out of 111 ads have the Ad Type: **Photo Post**	94 out of 113 ads have Ad Type: **Photo Post**
104 out of 111 have **Mobile Placement**	91 out of 113 have **Mobile Placement**

Recommendations

- **Putting more photo post advertisements on mobile phones** helps increase engagement with the audience.
- It is crucial to **add action words in the advertisement body**.
- **Highlight "New"** in the ads' body for the new or incoming products.
- In E-commerce segment, **Ads from Experiment 2 works more effective for the younger population.**

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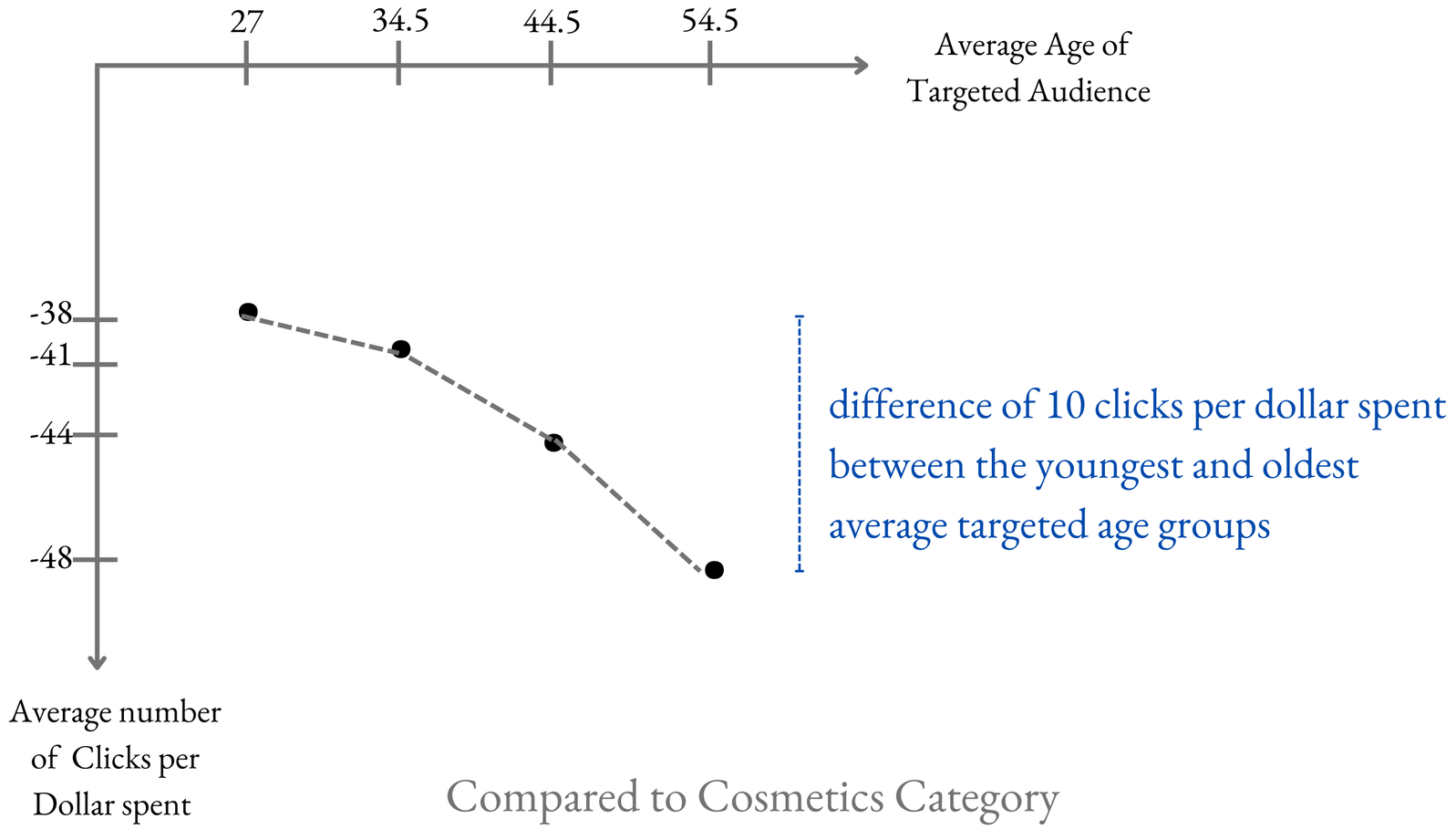
Appendix

Which Advertisement to use to Target a particular Age Segment ?

1. Shifting target audience from oldest to youngest age group generates 10 additional Clicks per Dollar spent in Experiment 1



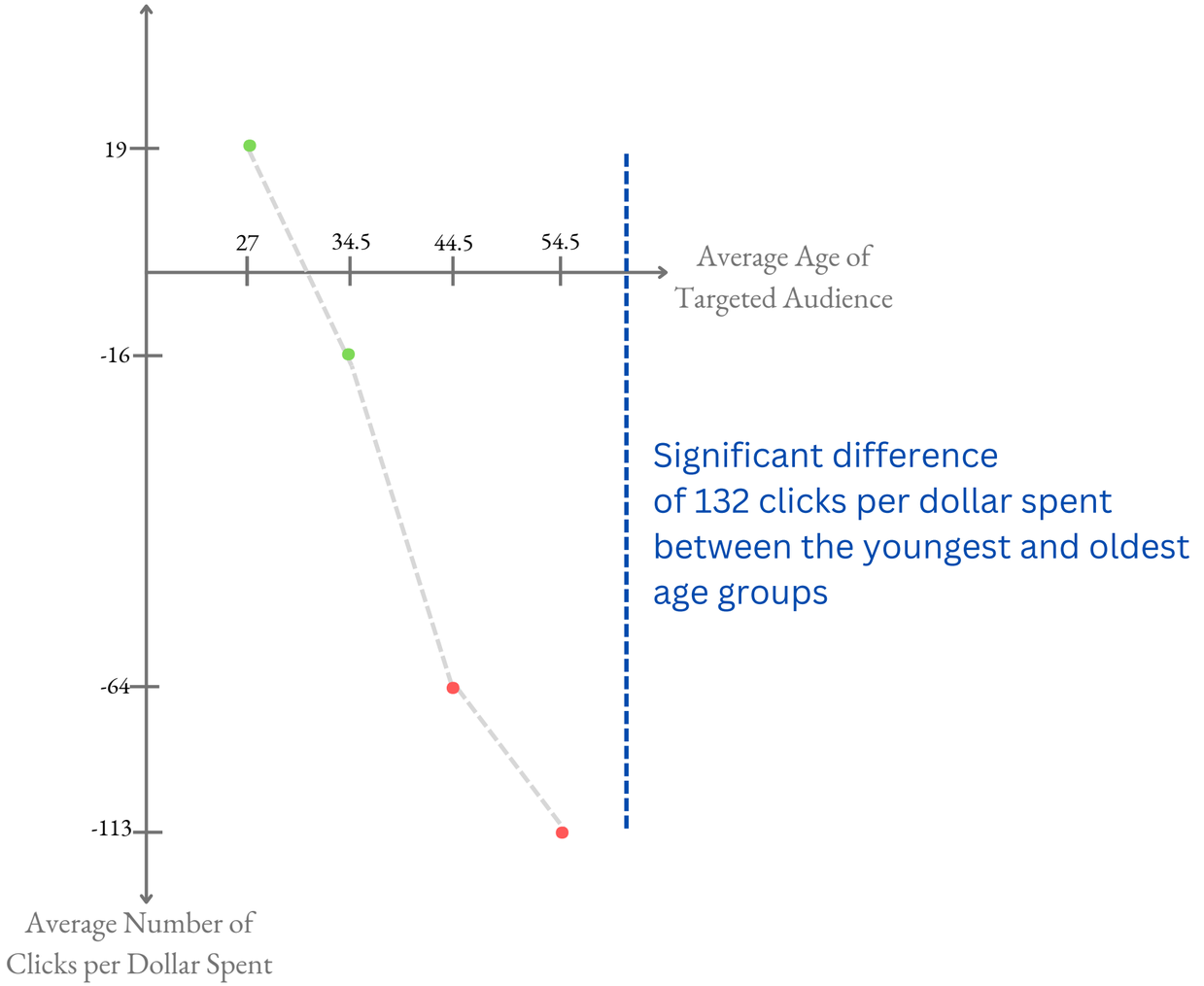
Compared to Cosmetics Category

Which Advertisement to use to Target a particular Age Segment ?

2. Younger Audience expected to engage significantly more with Advertisement from Experiment 2

Audience engagement in Experiment 2

- **improved** for the younger population
- **declined** for the older population compared to Cosmetics Category



3. Frequency count of factors of successful E-commerce Ads from the older targeted audience in Experiment 1

```
> a1
# A tibble: 2 × 2
  adType      Freq
  <chr>      <int>
1 Photo Post    84
2 Link Post     27
> a2
# A tibble: 2 × 2
  placement    Freq
  <chr>       <int>
1 mobile        104
2 desktopfeed     7
> a3
# A tibble: 18 × 2
   keywords                                                    Freq
   <chr>                                                      <int>
 1 #Almay, #Clinique, #CoverGirl, #Maybelline, #Sephora, mac cosmetics    23
 2 #Lucky Brand Jeans                                          21
 3 #American Eagle Outfitters                                  12
 4 #Lululemon Athletica                                        12
 5 #Abercrombie & Fitch                                        11
 6 #Old Navy                                                    6
 7 #Shopping                                                    6
 8 #Amazon.com, #EBay                                           3
 9 #Banana Republic (clothing retailer)                         3
10 #Ann Taylor (clothing retailer)                              2
11 #Burlington Coat Factory                                     2
12 #Kohl's                                                      2
13 #Urban Outfitters                                            2
14 #Zappos.com                                                  2
15 #Dillard's                                                   1
16 #Kmart                                                       1
17 #Macy's                                                      1
18 #Talbots                                                     1
> a4
# A tibble: 6 × 2
  body                                                                                                  Freq
  <chr>                                                                                                <int>
1 "What's your favorite Spring fashion trend? \"\"Like\"\" us and share!"                                 25
2 "Click \"\"Like\"\" to see what's new in our stores for Spring!!"                                       23
3 "Need inspiration for your spring wardrobe? \"\"Like\"\" us for more!"                                  18
4 "Share your favorite fresh Spring looks on our Facebook page. Click \"\"Like\"\" now!"                 16
5 "Check out a sneak peak of what's new in our stores!"                                                  15
6 "Click \"\"Like\"\" to become a fan of Retail Store X!"                                                14
```

4. Frequency count of factors of successful E-commerce Ads from the younger targeted audience in Experiment 2

```
> b1
# A tibble: 2 × 2
  adType      Freq
  <chr>      <int>
1 Photo Post    94
2 Link Post     18
> b2
# A tibble: 2 × 2
  placement    Freq
  <chr>       <int>
1 mobile         91
2 desktopfeed    21
> b3
# A tibble: 14 × 2
   keywords                                                    Freq
   <chr>                                                      <int>
 1 #Lucky Brand Jeans                                            24
 2 #Shopping                                                     18
 3 #Lululemon Athletica                                          17
 4 #Almay, #Clinique, #CoverGirl, #Maybelline, #Sephora, mac cosmetics    14
 5 #Abercrombie & Fitch                                          12
 6 #American Eagle Outfitters                                    12
 7 #Burlington Coat Factory                                       4
 8 #Kate Spade                                                    2
 9 #Macy's                                                        2
10 #Sears                                                         2
11 #Zappos.com                                                    2
12 #Amazon.com, #EBay                                             1
13 #Bebe stores                                                   1
14 #Kmart                                                         1
> b4
# A tibble: 6 × 2
  body                                                                                  Freq
  <chr>                                                                                <int>
1 "Check out a sneak peak of what's new in our stores!"                                   28
2 "Click \"\"Like\"\" to see what's new in our stores for Spring!!"                       26
3 "What's your favorite Spring fashion trend? \"\"Like\"\" us and share!"                 19
4 "Need inspiration for your spring wardrobe? \"\"Like\"\" us for more!"                  17
5 "Click \"\"Like\"\" to become a fan of Retail Store X!"                                 16
6 "Share your favorite fresh Spring looks on our Facebook page. Click \"\"Like\"\" now!"   6
```

5. Effects of different variables on click per dollar compared with baseline

```
## Coefficients:
##                                                                  Estimate
## (Intercept)                                                    56.042064
## factor(adType)Photo Post                                        7.395170
## factor(category)Department                                    -32.538466
## factor(category)eCom                                          -42.643506
## factor(category)General                                       -45.741606
## factor(category)High End                                      -42.101003
## factor(category)Retailer                                      -28.402593
## factor(placement)mobile                                        33.650630
```