

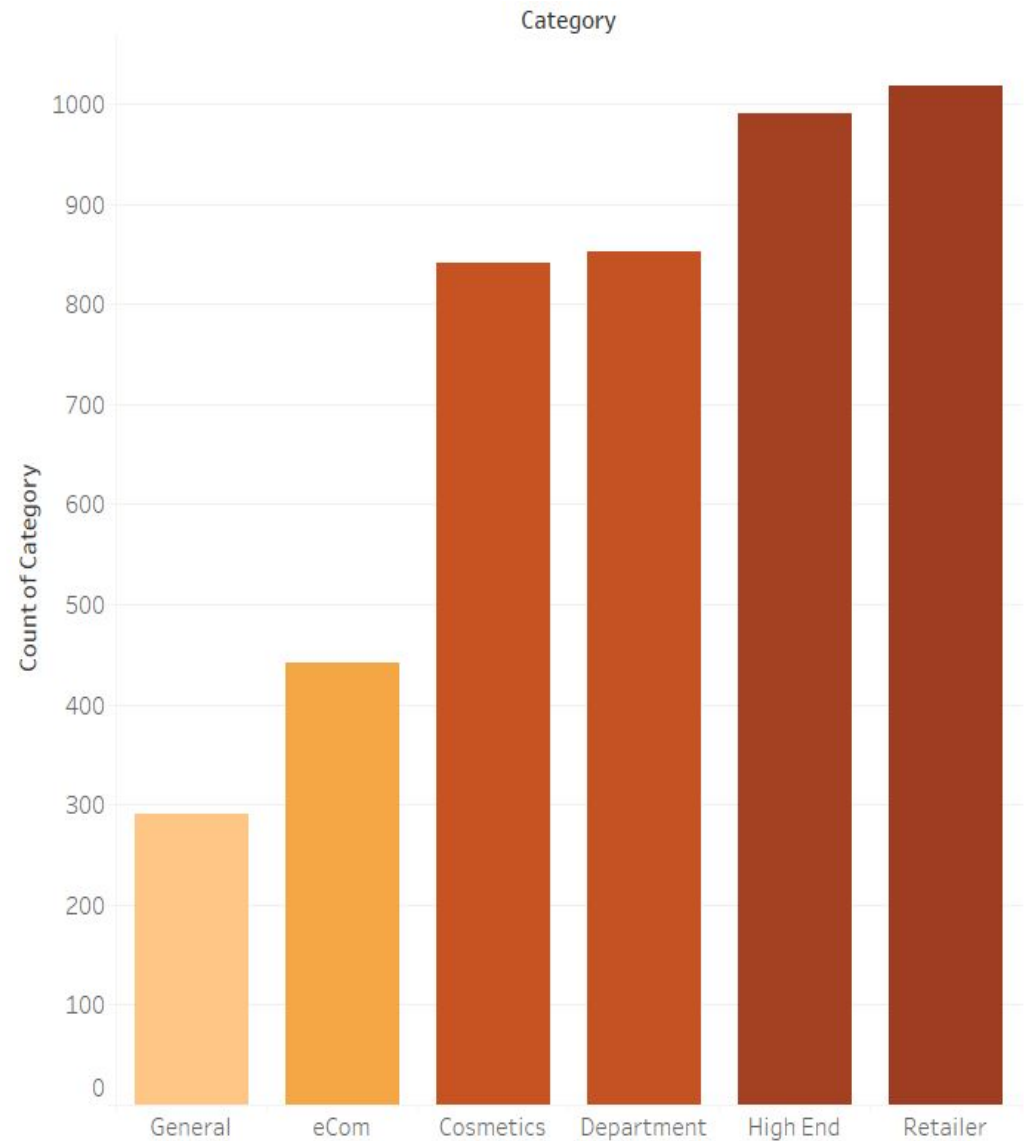
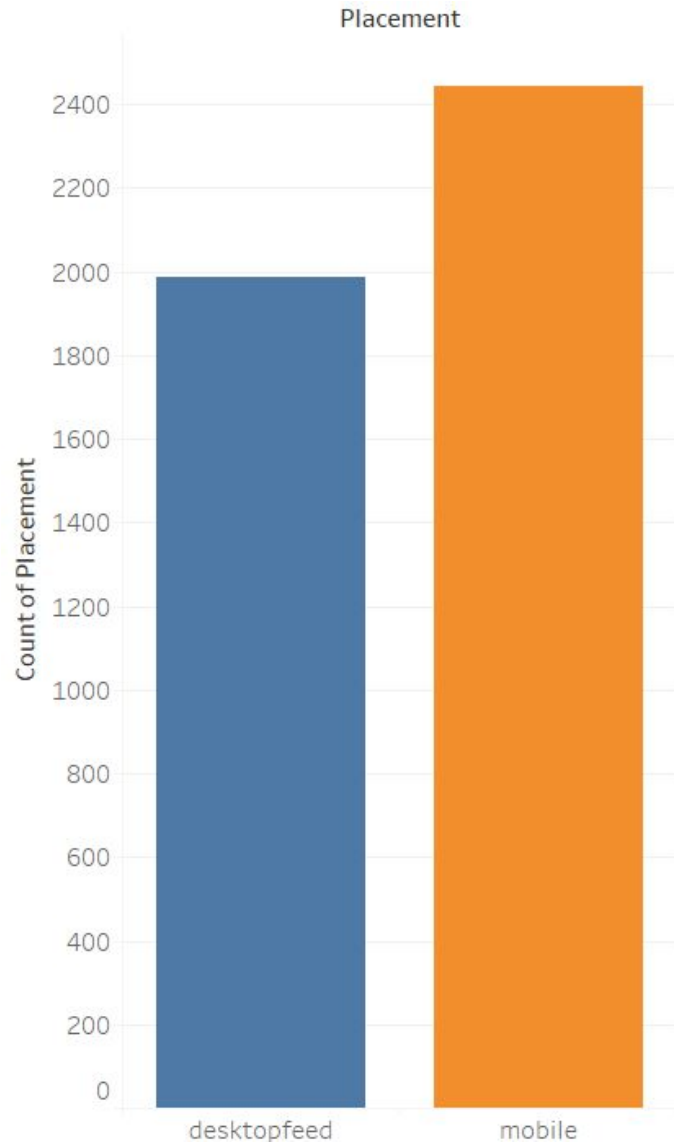
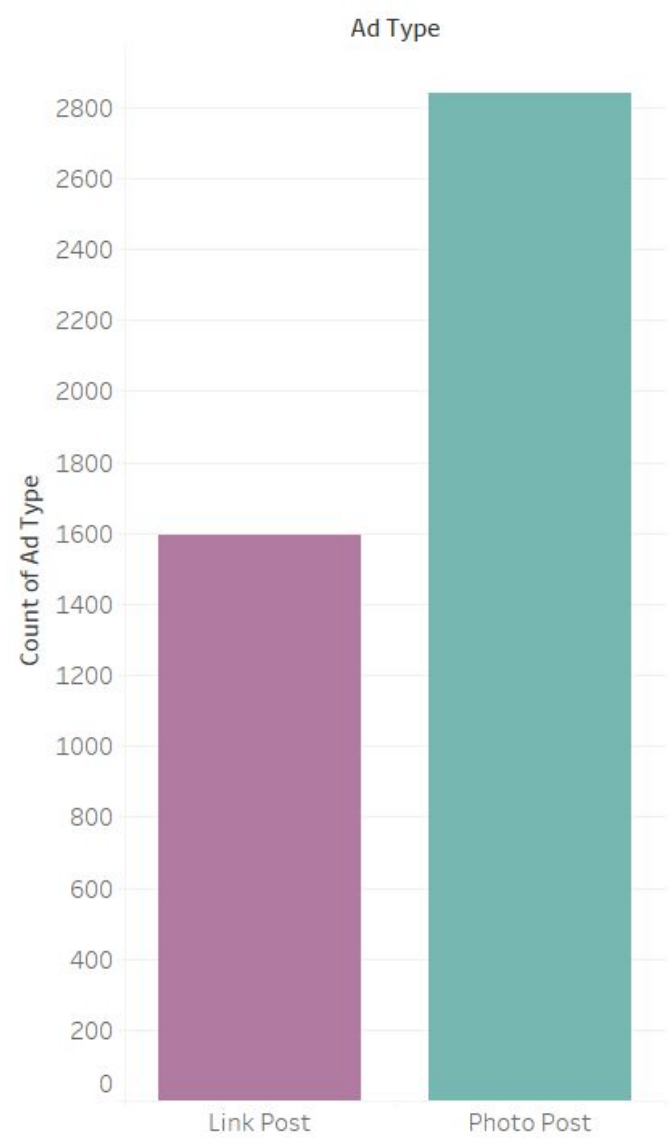


How to Make a Successful Advertisement

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Chen Zhong and Xingru Qian

Dec.04, 2022

Experiment Overview

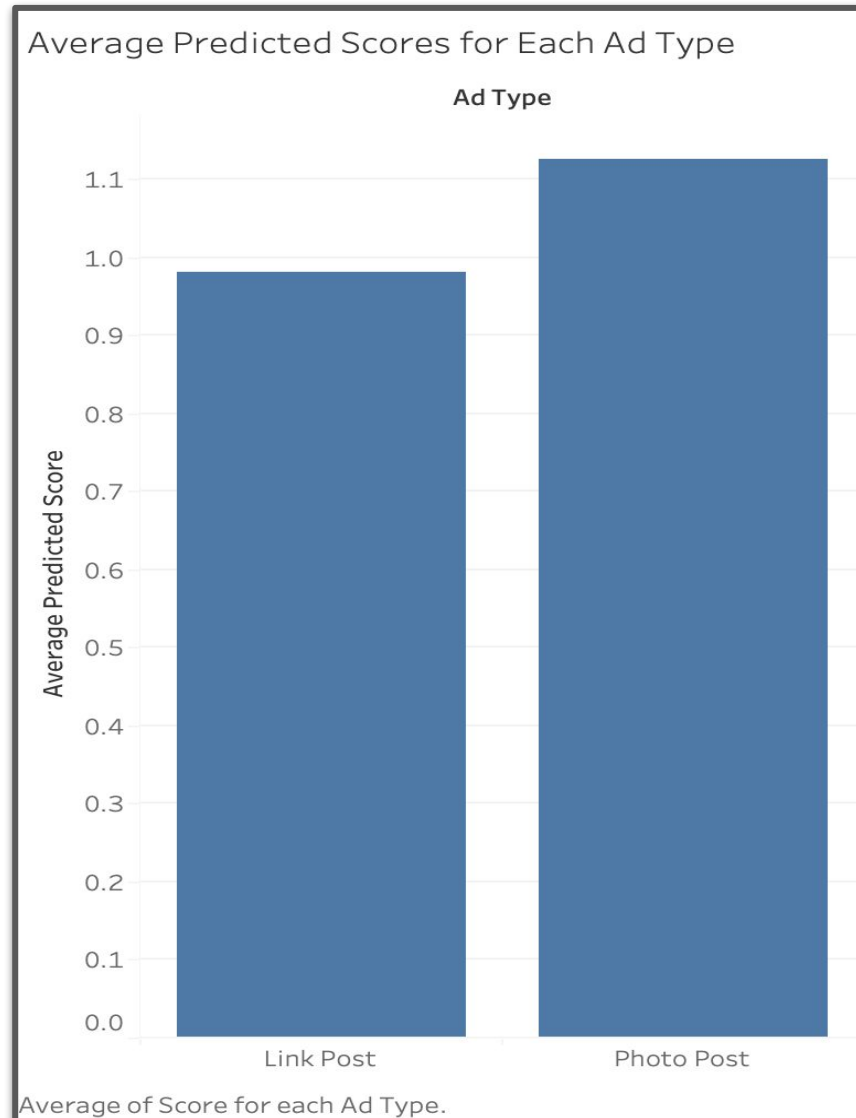


DATA SETUP AND PRELIMINARY ANALYSIS

Data Setup

- Score
- Rate of Return
- Extend

Photo Posts have Greater Predicted Scores on Average



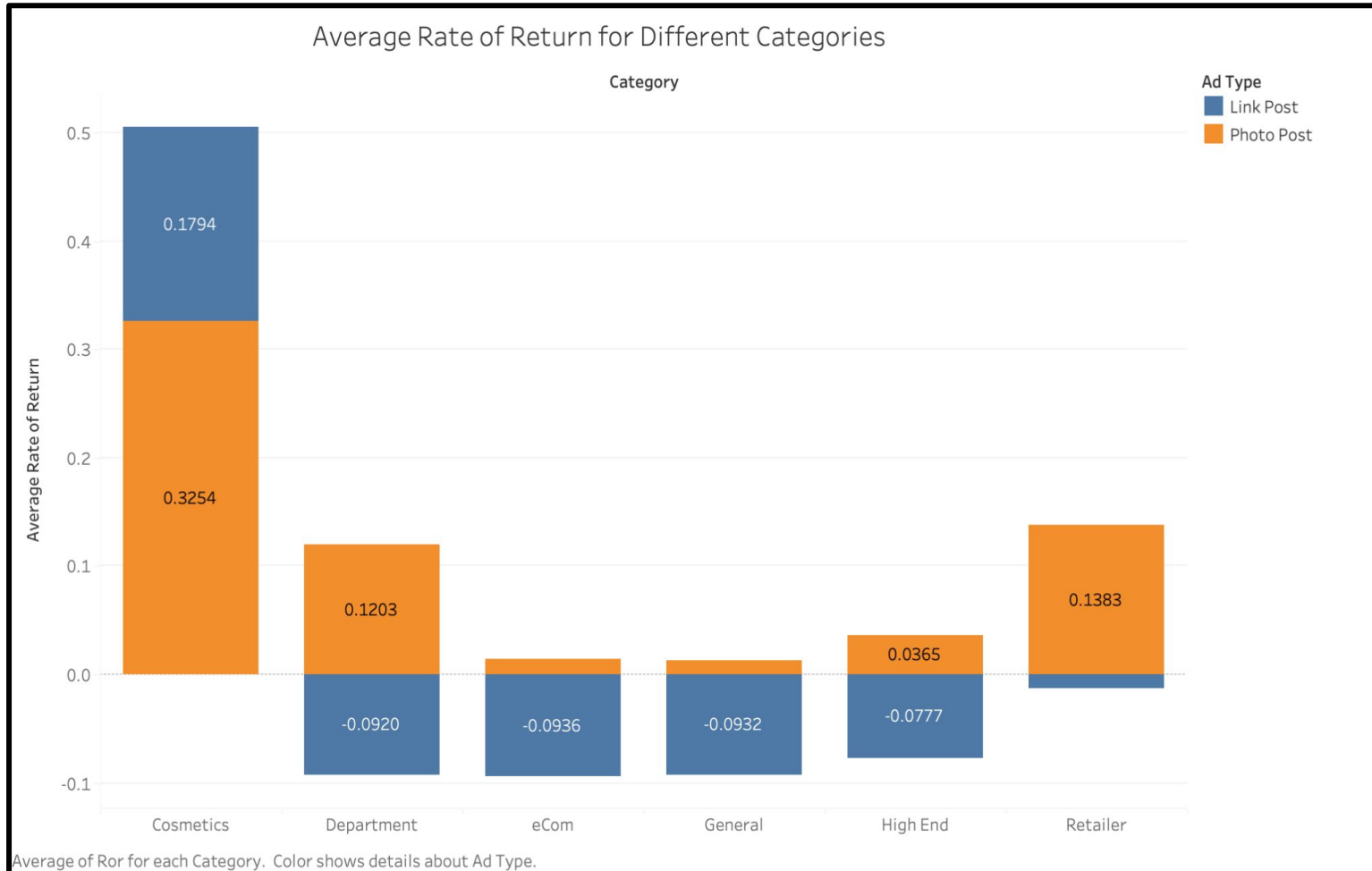
Findings:

- On average, photo posts have a predicted score of 1.1268. Link posts have a predicted score of 0.9807.
- Regression Analysis: **A photo post yields a predicted score greater than a that of a link post by 0.1462.**

Suggestion:

- Consumers respond to picture-based ads/stimuli and these ads are consequently likely to generate more clicks.
- We recommend that the company use photo posts, as they generate a greater “bang-for-buck” for the same valuation.

Photo Posts Yielded Greater Rates of Return Across All Companies



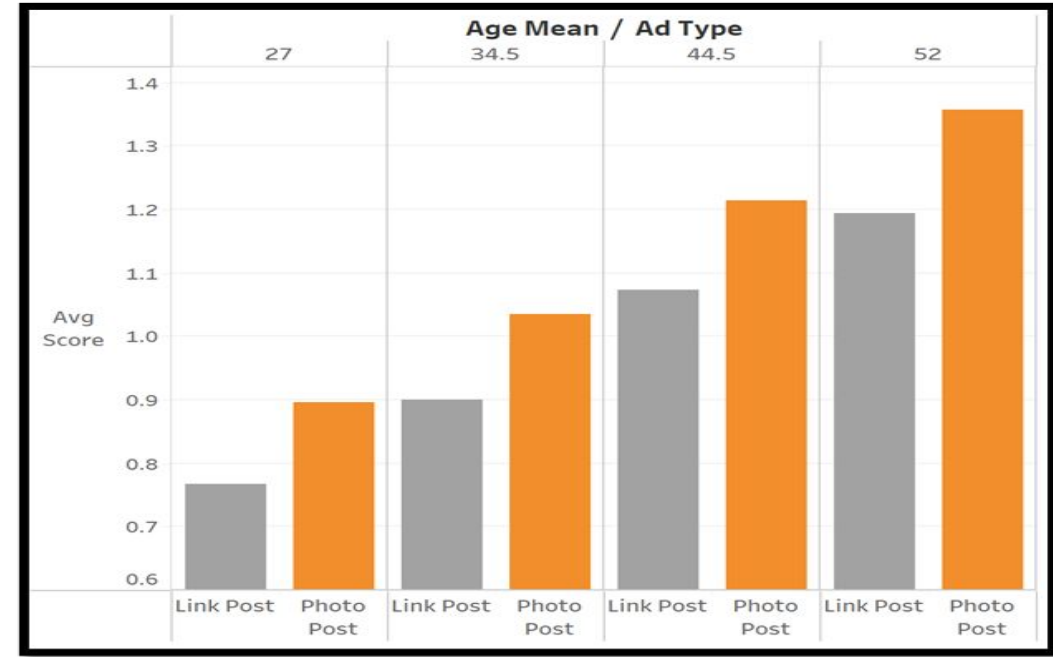
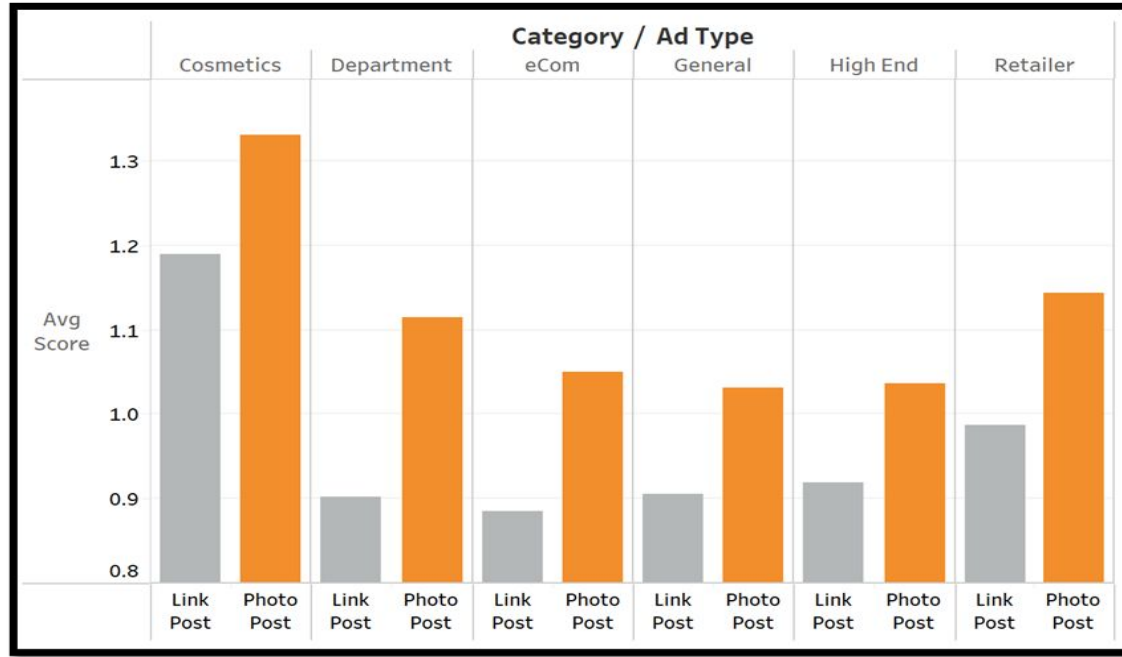
Findings:

- Photo posts have a greater rate of return overall.
- eCommerce ads have very low rates of return in general, with link posts earning significantly low rates of return.

Suggestion:

- We recommend using photo posts overall, with greater investments in eCommerce and general advertisements.

For Ad Types, Photo Post ads perform Best across all categories among age groups



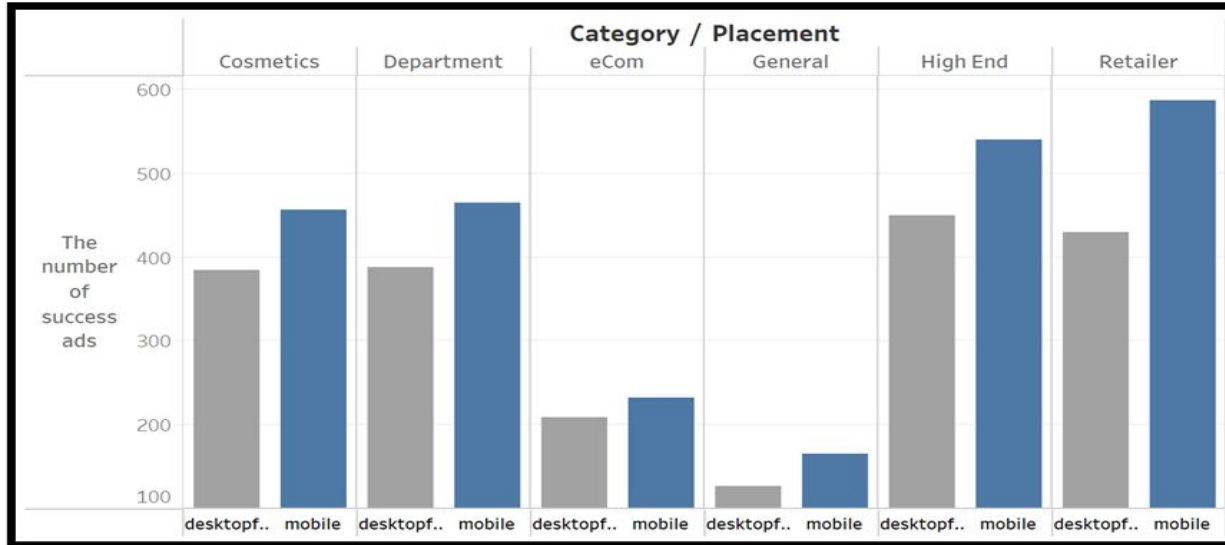
Findings:

- Photo post ads perform better than link post in all categories and age groups

Suggestion:

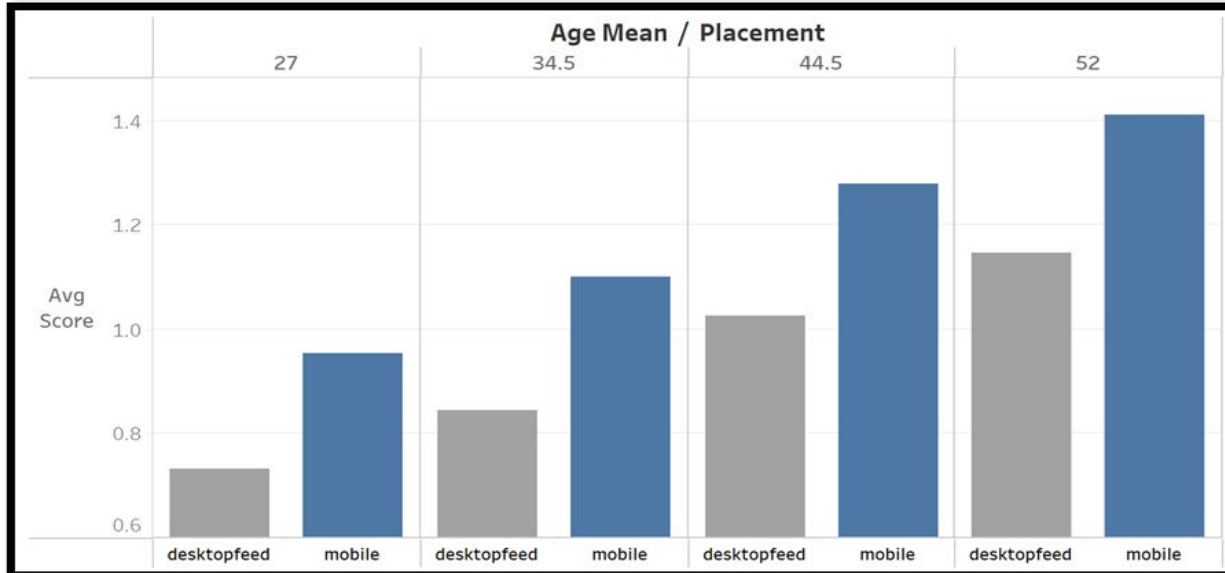
- Overall, photo post ads performs best regardless of category or target consumer age, thus we recommend to use photo post

For Placement, Ads perform best across all categories and age groups on mobile client.



Findings:

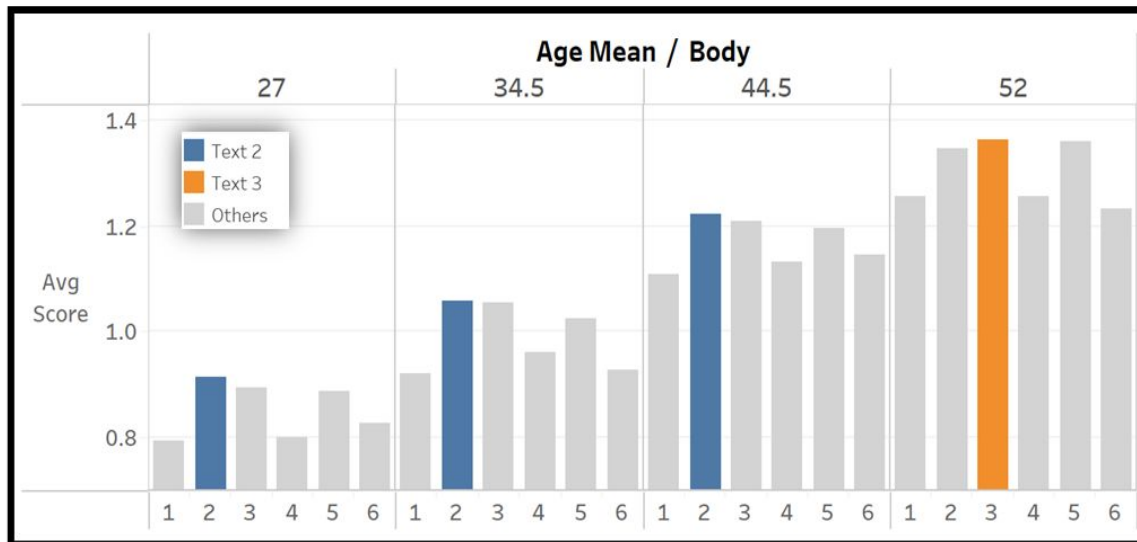
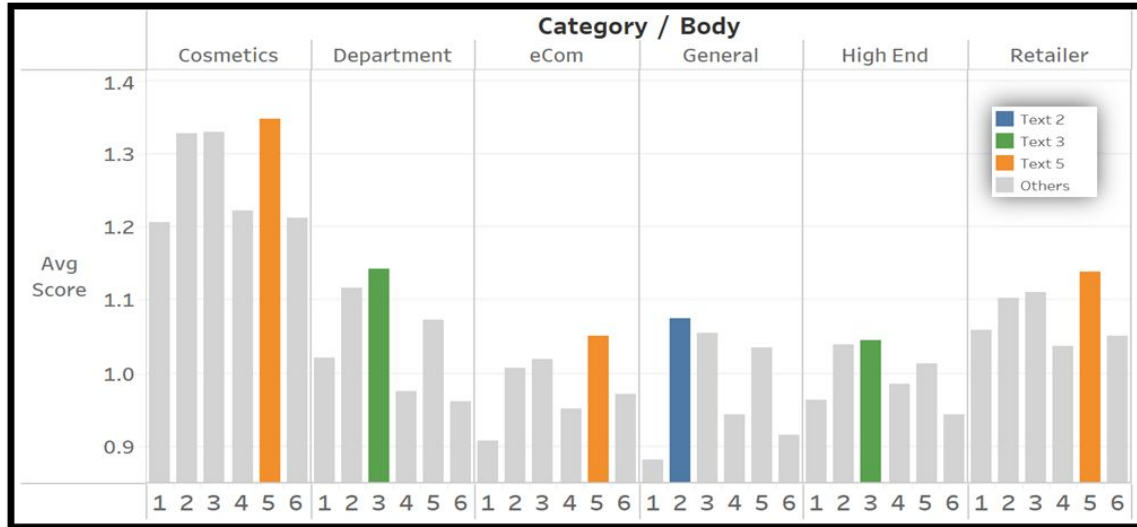
- Mobile ads perform better than desktop feed ads in both retailer categories and age groups.



Suggestion:

- Mobile ads performs best regardless of client category or targeted consumer age, thus we recommend the ad placed on the mobile client.

Six Ad Texts performed differently across all client categories and targeted consumers



The text corresponding to the number

[1] "Check out a sneak peak of what's new in our stores!"
[2] "Click \"\"Like\"\" to become a fan of Retail Store X!"
[3] "Click \"\"Like\"\" to see what's new in our stores for Spring!!"
[4] "Need inspiration for your spring wardrobe? \"\"Like\"\" us for more!"
[5] "Share your favorite fresh Spring looks on our Facebook page. Click \"\"Like\"\" now!"
[6] "What's your favorite Spring fashion trend? \"\"Like\"\" us and share!"

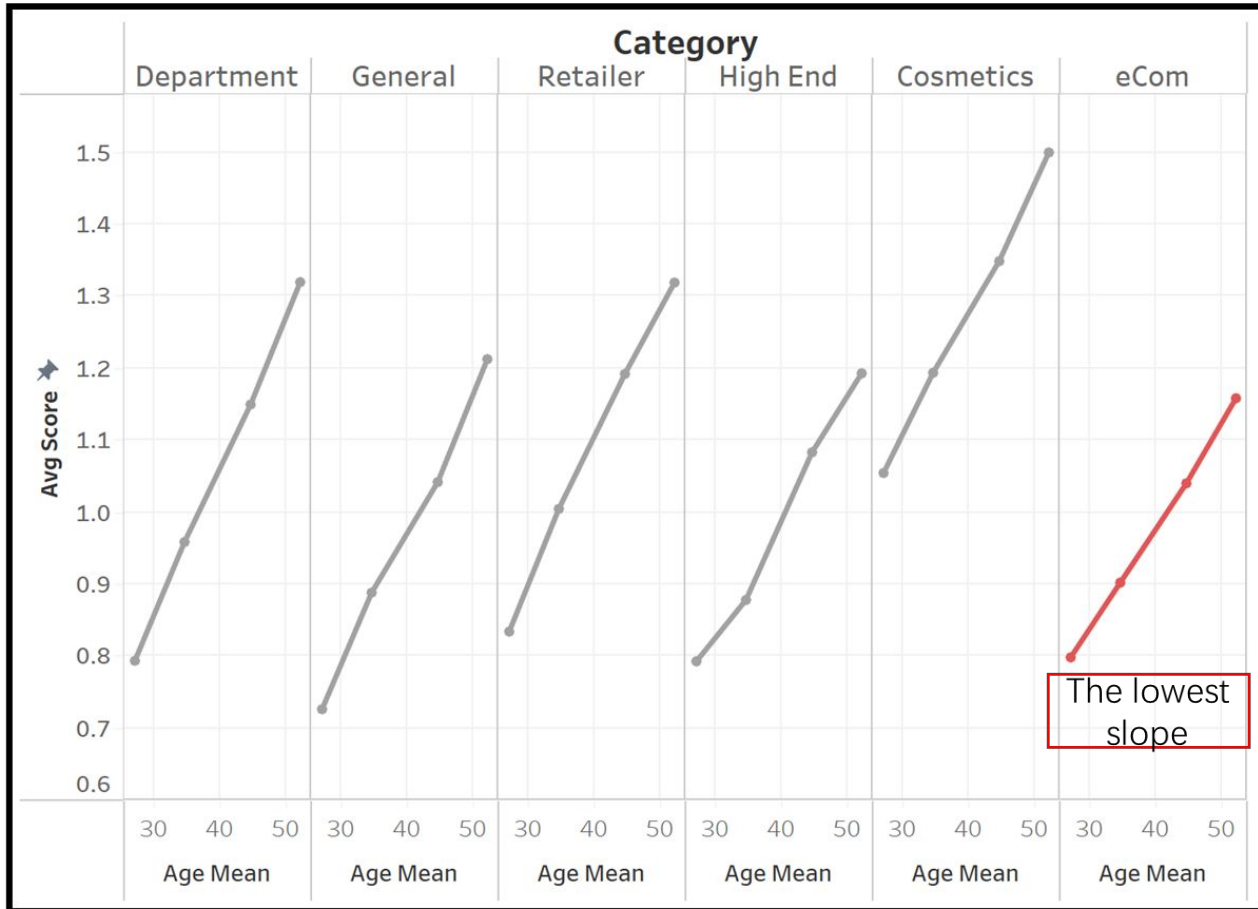
Findings:

- Ad text 5 performs better in **cosmetics, ecommerce** and **retailer** categories, text 3 performs better in **department** and **High End** categories, and text 2 performs better in **General** category
- Ad text 2 performs better in **27-44.5** age groups, and text 3 performs better in **52** age group

Implication:

- Different advertising texts behave differently in different age groups and client categories. We should recommend various advertising text bodies to different clients according to their categories and ages.

Ads are more effective to older people except eCom category



Findings:

- All categories show a trend that the older the consumer, the easier it is for the advertisement to produce results.
- Among the six categories, the score of eCommerce ads increases by an average of **0.42%** lower than that of the other five categories of retailers for every 1 year of age. It is the weakest growth trend.

Implication:

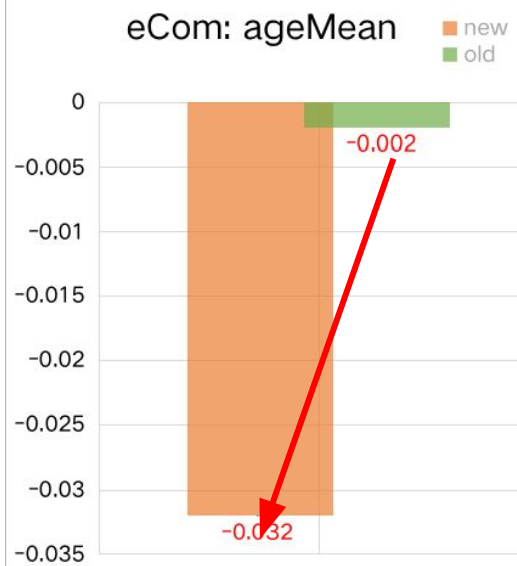
- The older the customer, the easier it is for the ad to succeed, regardless of the type of retailer.
- The efficiency of the eCommerce ads targeting older group is the weakest of the six.

Suggestion:

- We recommend most retailers to target consumers on older people rather than younger people.
- We suggest that eCom retailer pay more attention to younger consumers, because the competitiveness of eCom ads among older group is the weakest.

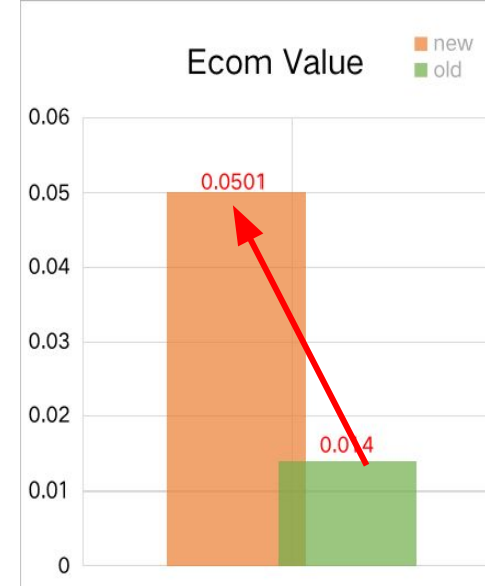
Redesign attracts more young target customers and improves the value.

```
lm(Score~factor(adType)+factor(placement)+factor(body)+ageMean+factor(category)*ageMean,data=new/old)
```



Finding:

- For facebook, with 1 grow in age, the Ecom will decrease by **0.002**. After redesign, the Ecom category are more affected by age growth, leading to a decrease of **0.032**.
- There is an **increase** in the impact on young people .



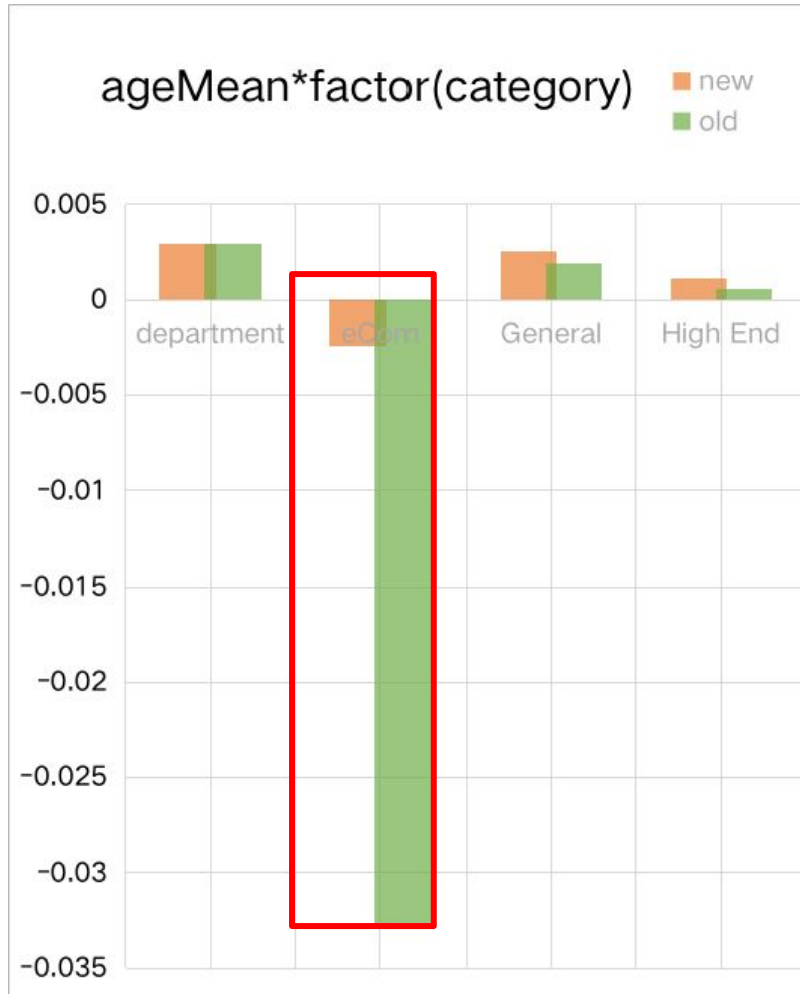
Finding:

- For facebook, Ecom category has an effect of **0.014** on value. After redesign, Ecom category has an effect of **0.05** on value.
- There is an **increase** in the ad value compared to last month.

Suggestion: Redesign attracts more young target customers and increase the value for eCom.

The target market of department, general and high end ads is old people.

```
lm(Score~factor(adType)+factor(placement)+factor(body)+ageMean+factor(category)*ageMean,data=new/old)
```



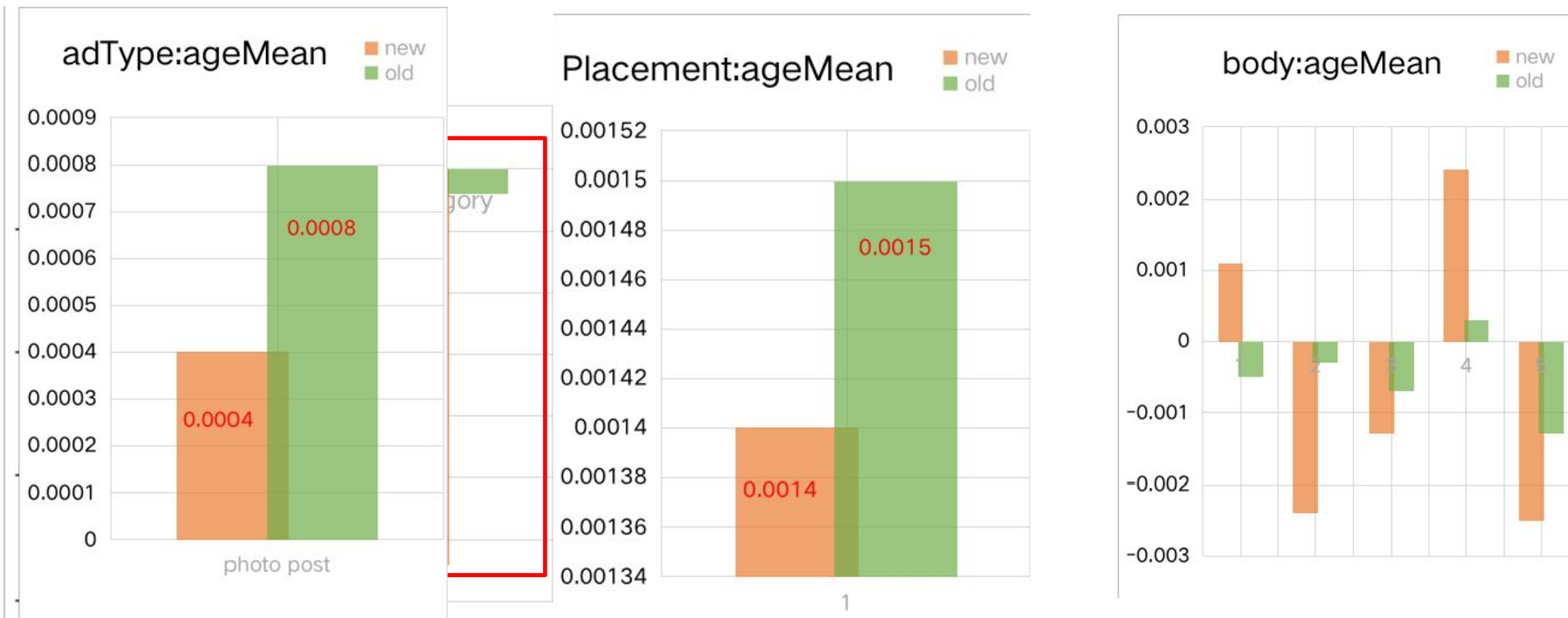
Findings:

- By comparing the value of old ad and new ad, We find that the other three categories are more successful in attracting older target customers rather than young people.
- Also, there is an increase between old ad and new ad.

Suggestion:

- Compared to cosmetics, the target market of department, general and high end ads is old people. But, ecom should be focused on young people market.
- The redesign is successful in improving the effectiveness.

Difference in relationship between factors and value before and after redesign



Findings:

- Redesign brings a great impact on category than other factors.
- Photo post are more attractive to old people.
- Mobile placement are more attractive to old people.
- After redesign, the body "Click ""Like"" to become a fan of Retail Store X!" changes to attract old people.

Conclusion

Insights:

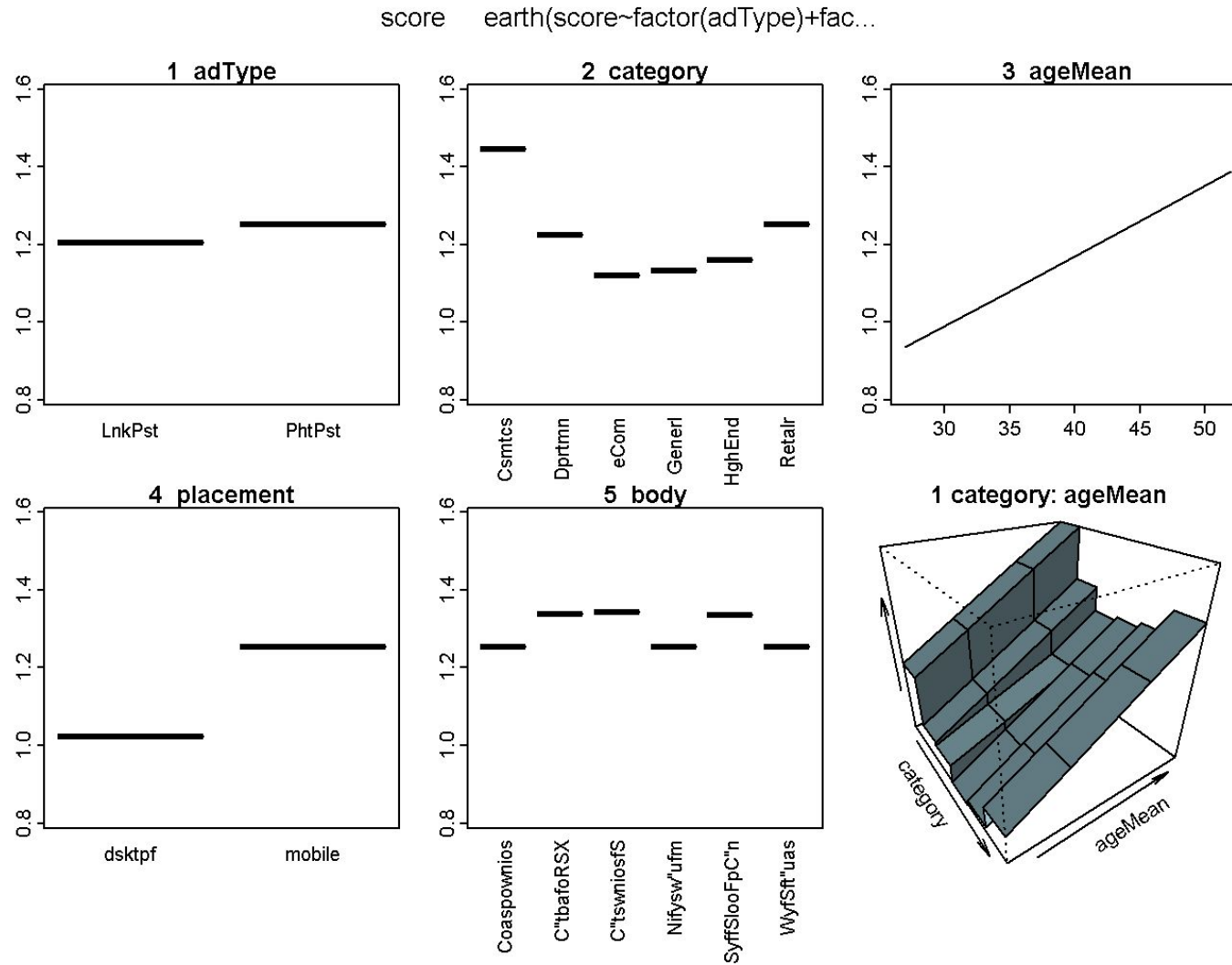
- As for the elements that contribute to a successful ad,
 - the ad type of Photo Post ads perform best across all categories among age groups
 - Ads placed on the mobile client is more effective
 - Ads are more effective to older people except eCom category
- As for the impact of redesign on the ad demographics,
 - redesign attracts more young target customers in eCom category
 - the target market of department, general and high end ads is old people
 - redesign brings a great impact on category than other factors

Recommendations:

- We recommend using photo post as for ad type and mobile client for placement.
- We recommend various advertising text bodies to different clients according to their categories and ages.
- We recommend most retailers to target consumers on older people rather than younger people.
- We suggest that ecom should be focused on young people market.

Thank you !

Appendix



Effect of different factors on ad score

Appendix

```
#2.(adtype/placement/body)*category
```

```
lm(formula = score ~ factor(adType) * factor(category) + factor(placement) +  
    ageMean, data = data)
```

factor(adType)Photo Post:factor(category)Department	0.0087610	0.0097662	0.897	0.370
factor(adType)Photo Post:factor(category)eCom	-0.0122287	0.0118043	-1.036	0.300
factor(adType)Photo Post:factor(category)General	-0.0174956	0.0137492	-1.272	0.203
factor(adType)Photo Post:factor(category)High End	-0.0140562	0.0093884	-1.497	0.134
factor(adType)Photo Post:factor(category)Retailer	-0.0052798	0.0093173	-0.567	0.571

```
#1.category*age
```

```
Call:  
lm(formula = score ~ factor(adType) + factor(category) * ageMean +  
    factor(placement) + factor(body), data = data)
```

factor(category)Department:ageMean	0.0029563
factor(category)eCom:ageMean	-0.0024364
factor(category)General:ageMean	0.0025100
factor(category)High End:ageMean	0.0011617
factor(category)Retailer:ageMean	0.0023410

Text

Appendix

#3.(adtype/placement/body)*age

```
Call:
lm(formula = score ~ factor(adType) * ageMean + factor(category) +
    factor(placement) + factor(body), data = data)

factor(adType)Photo Post:ageMean 0.0004748
```

```
lm(formula = score ~ factor(adType) + factor(category) + factor(placement) *
    ageMean + factor(body), data = data)
factor(placement)mobile:ageMean 0.0010068
```

```
lm(formula = score ~ factor(adType) + factor(category) + factor(placement) +
    factor(body) * ageMean, data = data)
factor(body)Click ""Like"" to become a fan of Retail Store X!:ageMean -7.639e-04
factor(body)Click ""Like"" to see what's new in our stores for Spring!!:ageMean -5.288e-05
factor(body)Need inspiration for your spring wardrobe? ""Like"" us for more!:ageMean -2.237e-04
factor(body)Share your favorite fresh Spring looks on our Facebook page. Click ""Like"" now!:ageMean -6.012e-04
factor(body)what's your favorite Spring fashion trend? ""Like"" us and share!:ageMean -4.417e-04
```

Appendix

```
Call:
lm(formula = ror ~ category, data = fb_data)

Residuals:
    Min       1Q   Median       3Q      Max
-0.67268 -0.16978 -0.00327  0.17577  0.61663

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)    0.273277   0.008063   33.89  <2e-16 ***
categoryDepartment -0.228509   0.011363  -20.11  <2e-16 ***
categoryeCom    -0.297511   0.013742  -21.65  <2e-16 ***
categoryGeneral -0.296617   0.015896  -18.66  <2e-16 ***
categoryHigh End -0.278290   0.010962  -25.39  <2e-16 ***
categoryRetailer -0.190792   0.010895  -17.51  <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.2337 on 4425 degrees of freedom
Multiple R-squared:  0.1638,    Adjusted R-squared:  0.1629
F-statistic: 173.4 on 5 and 4425 DF,  p-value: < 2.2e-16
```