**Managerial Implications Study Design Document**

**Study Goals:**

1. Demonstrate managerial implications of the asymmetry in anticipation of positive vs negative things
2. Field study with real behavior
3. Manipulate the mediator
4. Outcomes should be objectively identical in all conditions, but framed as gains or losses

**Design overview:**

We want to compare the impact of *anticipation* of gains vs losses. Retirement investment can be framed as a decision about immediate vs future benefits or immediate vs future expenses. We will run facebook ads and compare the click-through rate of four different messages: Loss frame, loss frame + anticipation message, gain frame, and gain frame + anticipation message. We hypothesize two main effects and an interaction:

H1: loss frame works better than gain

H2: anticipation message works better than no anticipation message

H3: anticipation message works better in the loss condition than the gain condition

**Loss Condition Messages:**

Start taking care of your retirement expenses today!

Free Retirement Calculator [Learn More]

**Loss + Dread Condition Messages:**

Worried about your retirement expenses?

Start taking care of your retirement expenses today!

Free Retirement Calculator [Learn More]

**Gain Condition Messages:**

Start building your retirement benefits today!

Free Retirement Calculator [Learn More]

**Gain + Savoring Condition Messages:**

Looking forward to your retirement benefits?

Start building your retirement benefits today!

Free Retirement Calculator [Learn More]

**Advertisement Practical Details**

Ad will run on Facebook (and Facebook affiliated sites)

Split test campaign (makes it a randomized experiment, rather than auto-optimizing each ad separately)

Ad links to:

<https://www.vancity.com/Investments/InvestmentCalculators/RetirementCalculator/>

Age range: 19-64

Location: Canada

Max: $1 per link click

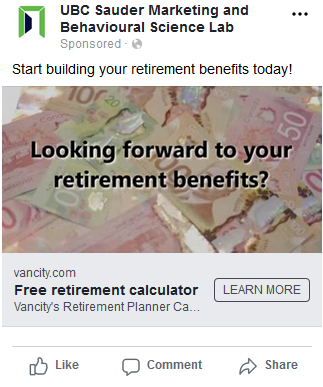
Budget: $200

Duration: 5 days

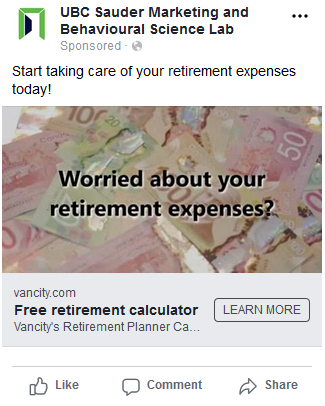
Notes: Call to action (we have to choose one): “Learn more”. Advertisement has to show sponsor, in this case “UBC Sauder Marketing and Behavioural Science Lab.” Also, advertisement has to show target domain (vancity.com in this case). Text in Ad cannot have too much text – the text you see below is the maximum text allowed before getting substantial penalties.

Ads used:

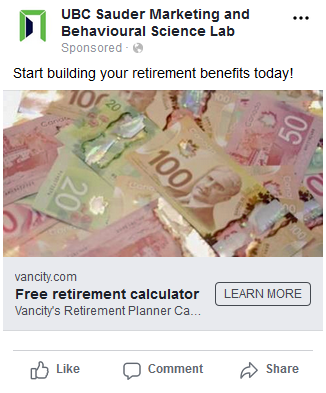
**Ad A (Gain+Savoring):**



**Ad B (Loss+Dread):**



**Ad C (Gain):**



**Ad D (Loss):**



**Results:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **N (Unique Views)** | **Number of Link Clicks** | **% Clicking (clicks/unique views)** | **Cost Per Click** |
| **Ad A: Gain+Savoring** | 6,790 | 199 | 2.9% | $0.25 |
| **Ad B: Loss+Dread** | 6,640 | 284 | 4.3% | $0.18 |
| **Ad C:  Gain** | 7,664 | 162 | 2.1% | $0.31 |
| **Ad D:  Loss** | 7,052 | 167 | 2.4% | $0.30 |

**Stats:**

Proportion of clicks is our primary DV.

Doing pairwise binomial tests between each outcome:

1. Comparing Ad B (Dread, 4.3%) to all the other conditions in a series of pairwise comparisons, Ad B is more effective in each case, all p < .001.

2. Ad A (Gain+Savoring, 2.9%) is significantly better than Ad C (Gain, 2.1%), and also better than Ad D (Loss, 2.4%).

3. There is no difference between Ad C (2.1%) and Ad D (2.4%), p = 0.30.

Although perhaps not appropriate, because the anticipation treatments are different, what happens if we run a 2x2? Specifically, if we compare 2 (sign:gain vs loss) x 2 (anticipation:present vs absent) with a logistic regression, we get a main effect of sign, p < .001, a main effect of anticipation, p < .001, and a marginal interaction, p = .06. If we do a 2x2 ANOVA, sign and anticipation are p < .001 and the interaction is p < .01.