### Design a Marketing Experiment Assignment Rubric

<table>
<thead>
<tr>
<th>Elements</th>
<th>Criteria</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Introduction</strong></td>
<td>Describes four elements (identifies the brand, the marketing campaign being tested, the type of experiment, and reasons for selecting that type of experiment)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Describes three out of four elements (identifies the brand, the marketing campaign being tested, the type of experiment, and reasons for selecting that type of experiment)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Describes one or two elements (identifies the brand, the marketing campaign being tested, the type of experiment, and reasons for selecting that type of experiment) or omits</td>
<td>3</td>
</tr>
<tr>
<td><strong>2. Experiment design</strong></td>
<td>Explains all five elements (variables, grouping, market, timing, causality) and the reason for those choices</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Explains three to four elements (variables, grouping, market, timing, causality) and the reason for those choices</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Explains one or two elements (variables, grouping, market, timing, causality) and the reason for those choices or omits</td>
<td>3</td>
</tr>
<tr>
<td>Feedback</td>
<td><em>I wonder what would happen in your experiment if you changed...</em></td>
<td>NA</td>
</tr>
<tr>
<td><strong>3. Anticipated issues</strong></td>
<td>Describes at least two issues the experiment might need to consider and at least two things the experiment will demonstrate</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Describes at least one issue the experiment might need to consider and at least one thing the experiment will demonstrate</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Describes either one issue the experiment might need to consider OR at least one thing the experiment will demonstrate or omits</td>
<td>3</td>
</tr>
<tr>
<td>Feedback</td>
<td><em>Another thing you might consider is...</em></td>
<td>NA</td>
</tr>
<tr>
<td>4. Experiment adaptation</td>
<td>Completes all three elements (outlines a second version of the experiment that tests another medium, describes how this would affect the experiment, explains why one experiment would yield better results)</td>
<td>5</td>
</tr>
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<td>--------------------------</td>
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<tr>
<td></td>
<td>Completes two of three elements (outlines a second version of the experiment that tests another medium, describes how this would affect the experiment, explains why one experiment would yield better results)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Completes one element (outlines a second version of the experiment that tests another medium, describes how this would affect the experiment, explains why one experiment would yield better results) or omits</td>
<td>3</td>
</tr>
<tr>
<td>Feedback</td>
<td>Another way to adapt the experiment would be...</td>
<td>NA</td>
</tr>
<tr>
<td>5. Additional Feedback</td>
<td>When I read about your experiment, it made me think about...</td>
<td>NA</td>
</tr>
</tbody>
</table>
REPORT: DESIGNING A MARKETING EXPERIMENT

Should Vessi Footwear Introduce MRT Ads Across Canada?

INTRODUCTION

This report aims to design a marketing experiment for waterproof knit sneakers by Vancouver-founded Vessi Footwear, specifically, their Everyday Sneaker line. The campaign is an MRT (subway or skytrain) billboard advertising campaign highlighting the versatility of their Everyday Sneakers, which allow the wearer all-weather coverage all day—from work to play. In recent years, demand for sleek and minimally designed, yet functional products in every aspect of life, from technology (ie., Apple products) to water bottles (ie., insulated stainless steel water bottles from S’well) has increased, and the Everyday Sneakers are a prime example of the shift from products that fulfill a pure functionality role to one that ticks the boxes of both functionality and style.

This experiment will be a before-after design experiment, as basic experiments will do little to establish causality, and full-factorial design experiments will introduce too many bells and whistles to establish pure causality. In fact, full-factorial designs might be better suited for the optimization stage a digital marketing experiment, which this report will also briefly touch on.

EXPERIMENT DESIGN

The question that this experiment seeks to answer is: “Should Vessi Footwear Introduce MRT Ads Across Canada?”

Independent & Dependent Variables

The independent variable in this experiment is the introduction of local MRT advertisements promoting the Everyday Sneaker and the vessifootwear.ca website URL in the form of billboards at stations and in trains.

The dependent variable is online sales by units (Vessi products are only distributed via their online store).

During the test and pre-test periods, Vessi Footwear will run no other marketing campaigns or promotions. This is so that we can avoid any possible effects of confounding factors from Vessi Footwear’s own marketing efforts.

Test & Control Markets

The test market is Toronto, Ontario, and the control market is Vancouver, British Columbia. These Canadian cities were selected because they resemble each other in terms of population demographics and other city attributes. However, their populations differ significantly. Since the entire population of these two cities will be exposed to the ads, the sample size in this experiment is the population of Toronto (6.2 million), and the population of Vancouver (2.6 million), respectively. These are, obviously, statistically significant sample sizes.
Pre-test and Test Periods

A before-after design experiment requires that we obtain pre-test sales data from a set amount of time for both test and control markets. Sales units will be recorded for a two-month total from October to November. The experiment will be run for two months in January and February. The month of December has been avoided in order to account for the external factor of peak holiday purchases, which would skew sales significantly. January and February have been chosen as the test period in order to determine whether Vessi Footwear should invest in MRT ads across the nation for the spring season in March and April, when the weather is wet and people are more likely to venture outdoors after the cold winter months inside.

The change in sales between these two test periods will be used to calculate sales lift.

Further Information Needed

Because the populations differ significantly, the following are the figures we will need to find out in order to more accurately determine the lift in sales caused by the introduction of MRT ads:

- Toronto’s %-age shares during the pre-test period
- Vancouver’s %-age shares during the pre-test period
- Toronto’s %-age shares during the test period
- Vancouver’s %-age shares during the test period

Satisfying the 4 Rules of Causality

The check marks below indicate whether the rule of causality has been satisfied by the outlined experiment.

✓ Change in marketing mix produces change in sales
   - We will determine whether increased advertising spend on the MRT billboards lead to increased sales.

✓ No sales increase when there is no change in the marketing mix
   - We will determine whether no increase in advertising ad spend on the MRT billboards will lead to increased sales.

✓ Time sequence
   - We will establish that increased advertising spend on the MRT billboards today will increase sales tomorrow.

✘ No external factors
   - While we attempted to minimize factors such as sales peaks during the holiday season in December, this experiment does not control for external factors such as competitors’ marketing efforts, new innovations in the waterproof footwear space, natural disasters, coronavirus pandemics, etc.
ANTICIPATED ISSUES

No experiment is perfect. Some anticipated issues for this particular experiment are:

- Weather differences in October and November (the pre-test period) vs. January and February in Toronto and Vancouver do exist. While October is still considered “fall”, November, December, January, and February are all considered winter months. However, in Toronto, snow normally begins to fall in late October to early November. In Vancouver, snow typically arrives in December. This difference in weather pattern is slight, but could still affect the accuracy of the results of the experiment.
- We are trying to answer the question of whether Vessi should introduce MRT ads for the Everyday Sneaker across all of Canada. The percentage of downtown core populations who would use their local MRT system might differ in different Canadian cities. Take the GTA (Greater Toronto Area) population, which makes up a large percentage of the Toronto population. Many GTA residents still use the subway system to commute downtown for work, but would more likely and more often use other private transit systems that serve the outskirts of the city and neighbouring towns, if not their private automobiles.
- Most Canadian cities are big driving cities (typical of cities with a lot of sprawl). It is possible that residents may opt to use their private automobiles in Toronto’s sub-zero temperatures, or ride-share services such as Uber and Lyft during winter months. This reduces the need for all-weather shoes in general. However, residents in a city in the province of British Columbia, for example, would only occasionally face deep sub-zero temperatures, so commuting via subway and other public transport may be more acceptable to these residents during winter months, increasing the need for all-weather shoes.

The issues mentioned above may impact the accuracy of this experiment, but the impact of MRT advertising spend on the Everyday Sneaker sales can still be determined. The very nature of the placements in MRT systems means that cities self-select, as only large metropolitan cities would invest in an MRT system in the first place, and large Canadian metropolitan cities share similar demographic make-up.

ADAPT THE EXPERIMENT

Another version of this experiment could be via digital advertising on social media platforms such as Instagram and Facebook. Moving the experiment online means that it can be done with a full-factorial design, testing independent variables such as ad copy, ad graphics, URL placement, target audiences, time of day the ad is served, medium (static graphic vs. video), video length, etc.

Moreover, a digital marketing experiment could also test for different dependent variables, which can then later be made into independent variables in their own. For instance, the experiment could test for number of newsletter subscriptions, a dependent variable. Using the
exact same ad copy, graphic, target audience, etc. we could also test for minutes spent on the Vessi website. In a follow-up experiment, we would test those dependent variables against one another: which of the metrics (increase in newsletter subscription OR minutes spent on the Vessi website) is a more accurate and reliable indicator of actual sales?

A digital marketing experiment would by far be more informative than one testing MRT campaigns. Knowing which metric is the best indicator of sales would allow management to make more informed choices in terms of budget allocation, and even perhaps answer questions like “Should we hire another email marketer, or another website designer?”. Digital marketing campaigns can be turned off and on with the click of a button, minimizing sunk costs. Constant iteration and optimization would allow marketers to fine-tune everything from their marketing message to pricing structure.

Sources