The Effect of Preference and Specific Types on Advertising Effectiveness

Yilin Chen

Abstract: Advertising has vital role in today’s competitive marketing world. This research study shows how prior preference and specific advertising types (comparative advertising and non-comparative advertising) influence the effectiveness of advertising. In this research, the effectiveness of advertising is measured in two dimension: believability and purchasing intention. The debate ensues as to the advertising types on the believability. Some demonstrated that believability is not influenced by advertising types but some think it is. Plus, no literature focuses on the difference in purchasing intention between customers with different prior preference. Collecting 86 survey in Weber State Ogden Campus, I found there is no significant relationship between believability / purchasing intention and advertising types/ prior preference. Advertising types and prior preferences may not influence the effectiveness of advertising at all.

I . Introduction

With the development of Internet, technology, transportation and communication, the increasing globalization has become a trend. Such a trend offers numerous opportunities for business, but it also brings products to global competition. When entering the global market with new products, companies also face with the competition of numerous similar products from other countries. Thus, companies need their products distinguished from other competitors. On the other hand, customers
also become more powerful. With the help of internet, customers can obtain detailed information about products which they are interested in to find the one that satisfies their requirement. Thorson and Duffy (2011) even demonstrated that customer loyalty does not exist in nowadays. To meet these challenges, a qualitative advertising is essential for companies to capture potential customers and maintain the old customers.

Advertising is a form of communicative activation (Remziye Terkan 2014). The advertising Practitioners of Nigeria (APCON) define advertising as message which is persuasive and informative about goods and services. (Benson-Eluwa, 2004). According to Lamb, Hair and McDaniel (2014), advertising can divided into two category: product advertising and institutional advertising. As to product advertising, it includes pioneering advertising, competitive advertising and comparative advertising. The comparative advertising is defined as a specific type of advertisement that compares an advertised brand with one or more competing brands and the comparison is obvious to customers (Barry and Tremblay 1975). Romano (2005) demonstrated that about 80% of all television advertisements and, and 30% to 40% of all formats of advertisements contained comparative claims in the last thirty years in United States.

Although many researches claimed advantages of comparative advertising (see the literature review section), I wonder whether it will offend some customers who preferred competitor’s brand and make the advertisement less effective. Here is a true
case: Lenovo has launched an advertisement on the first page of their official website, claiming that its new laptop is superior to IMac. However, such an advertisement was critique by Apple fans, and they launched a video called “MacBook Air vs. Lenovo Yoga3 in reality” on YouTube¹. Finally, Lenovo removed that advertisement from their website. Thus, I consider comparative advertising may not as perfect as some literatures described. To see how it may cause a negative effect can help companies use comparative advertising properly.

II. Literature Review

The following sections focus on several factors that may affect the effectiveness of advertising. They are based on existing literatures. Conclusions are summarized to provide current understanding of the comparative advertising.

*Does advertising formats affect effectiveness?*

Certain factors, such as the formats of the advertisement, are not the important determinant of the effectiveness of advertising as it may seem. Resino and Gonzalez

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¹ [https://www.youtube.com/watch?v=GmvQ013ho_g](https://www.youtube.com/watch?v=GmvQ013ho_g)
(2013) said audiences’ attitudes have no relationship to the media of an advertising. No matter the advertising is sent by E-mail, or a link, or web, audiences show no specific preference. Thus, I do not need to concern the formats when designing an advertisement.

*Current debate on believability and the unknown purchasing intention*

Several literatures have already measured the effectiveness of comparative advertising. Parsad, Demirdjian, Gotlieb and Sarel, and Emons and Fluet rendered me sufficient background about the effectiveness of comparative advertising. Prasad (1975) provided a framework to my study. Using experiment method, he found that consumers who preferred competitor’s brand have a lower credibility in the claims of a comparative advertisement. However, he noted that although movie camera (the product he chose to advertise) was popular among college student, most of subjects do not know camera very well. Thus, they were not confident (approximately 90% of the subjects stated in the questionnaire that they were "not confident at all" or only "slightly confident") in judging movie cameras, which may lead to a bias in result: someone ranked a high credibility only because they have heard the brand but do not know the other. In addition, he mentioned that purchasing intention, a factor he did not discuss in his paper, is also an important factor when judging advertising effectiveness.
Demirdjian (1983) claimed that comparative advertising is superior to non-comparative advertising in pursuing customers to buy advertised low cost product. Designing an experiment, he found comparative advertising not only increase customer’s purchasing intention, but also increase their purchasing behavior. In my research study, I avoid choosing low cost product, but choose laptop, a relatively high cost product, to see whether comparative advertising still increase purchasing intention.

Gotlieb and Sarel (1991) did a further study, and they found that the source of credibility have a positive relationship with purchasing intention. In addition, comparative advertising is more effective in increasing customers’ purchasing intention than non-comparative advertising if the credibility is high. This paper combined with the paper of Parasad rendered me a deep understanding in effectiveness of comparative advertising. However, I just find a gap between these two papers: although both of them mentioned competitive brand preferred group and non-competitive brand preferred group in their article, none of them measuring the difference in purchasing intention between these two groups. Thus, I decided to measure the purchasing intention between these groups to see whether there is a difference.

Emons and Fluet (2011) also did a research on testing the difference of believability between comparative advertising and non-comparative advertising. However, using mathematics models, they find audiences have similar believability
between these two types of advertising. The result is totally different from that of Prasad’s paper, and this is the reason why I measure the believability again in my research.

*Will participant’s strategic answer lead to a bias?*

Realizing that purchasing intention questions are often viewed as a question that subjects may not respond a truthful answer, Lusk, McLaughlin and Jaeger (2007) conducted a research on measuring consumer strategy when answering a purchasing intention question. He found that individuals answer such questions strategically to benefit themselves by alerting future incomes. This finding is helpful when designing a purchasing intention question. For example, investigating individual to see whether he or she is a strategy thinker or the virtue of altruism is a way to help researchers net out the strategic response in purchasing intentions. However, participants will not benefit from the survey I conduct, thus I do not need to test what kind of person the participants are.

All in all, built on these literature, my study focuses on measuring whether prior preference and advertising formats will influence the effectiveness of advertising.
III. Theory and Hypothesis

Cognitive consistency theories

Cognitive consistency theories are origin from the principles of Gestalt psychology, which suggests that people prefer to perceive the environment in ways that are easy and stable (Kohler 1929). Three major theories of cognitive consistency that have had the most impact on behavioral science, there are: balance theory (Heider 1946), cognitive dissonance theory (Festinger 1959) and confirmation bias theory (Nickerson and Raymond 1998).

Balance Theory is a theory of attitude change, introduced by Fritz Heider (1946). It defined the cognitive consistency motive as a drive toward psychological balance. The consistency motivation maintains one's existing values and beliefs over time. Cognitive dissonance is first introduced by Festinger in 1959. It focuses on how human strive for internal consistency. It claimed that when a person experience a new values which is conflicted with his existing one, he tends to become psychologically uncomfortable and is motivated to attempt to reduce this dissonance, as well as actively avoiding situations and information which are likely to increase it.

Confirmation bias theory (Nickerson and Raymond 1998) offered some explanations to see forces which drive people to insist their existing beliefs. There are
several possible explanations: the desire to believe and information-processing bases for confirmation bias. The desire to believe is similar to the Pollyanna Principle (Matlin and Stang, 1978), according to which people are likely to give preferential treatment to pleasant thoughts and memories over unpleasant ones. Information-processing bases for confirmation bias found that people are fundamentally limited to think of only one thing at a time, and once they focus on one thing, they continued to do so.

Despite widely used in psychological area, Cognitive consistency theory is also applied in marketing. Parasad (1976) measured the communication-effectiveness of comparative advertising. Using Cognitive Consistency Theories, he predicted that the believability of the claims of a comparative advertisement will be lower among consumers who prefer the competitor’s brand than among others. The result is the same as he predicted. The believability ratings given to the claim of the comparative advertisement by the participants who preferred competitors’ brand were significantly lower than others.

In my research project, I used cognitive theory to predict consumer’s believability and purchasing intentions. When consumers finds the claim of advertisement is conflicted with their prior value, they preferred rejecting the information contained in that advertisement, and just insist their former belief. In this situation, they may show a lower believability in the comparative advertisement and
their post actions such as purchasing intention will also lower than those people who do not prefer Apple.

IV. Method

Data Method

Survey method is used to conduct the research. Pre-questionnaire is designed to find the most popular Laptop brand, and that brand will be the competitor brand in a comparative advertising. All the 30 surveys were collected in the Weber State University Ogden Campus. Participants were asked to choose their favorite laptop brand among ten most popular laptop ranked by LAPTOPMAG. Apple MacBook gained the most voters with 17 voters out of 30. After collect the pre-survey data, two advertisements were made to advertise a fictional laptop brand: Raynor. Comparative advertising compares Raynor to Apple Mac, claiming that Raynor is superior to Apple in battery life, performance and portable. Non-comparative advertising just shows Raynor have a good performance in areas above.

Post survey was still collected in the Ogden Campus. The participants are people who were using a laptop in the campus. Surveying them is to make sure at least they have some knowledge about laptop. Participants are randomly treated to one type of survey. By asking participants’ prior preference of Ultrabook (Laptop) brand, they are divided into two groups: competitor’s brand preferred group (Apple Prefer),
and the other is called non-competitor’s brand preferred group (Non-Apple Prefer). Believability, purchasing intention are two focus variables in my research. Believability was obtained by asking participants to rate a scale from 0 to 9. Purchasing intention is measured by asking participants, “How would you like to buy Raynor Pro”? Participants will rate on a scale from 0 to 9. Other demographic variable such as gender, age, work status, marriage status and income are also included in both of surveys. The description of variables is showed in Table 1.

Statistic Method

After collecting the data, I use ANOVA, OLS regression and t-test to analysis data. First, two-way ANOVA is used to see whether there is any difference in believability/purchasing intention between types of groups/types of advertising. In this situation, preference and types of advertising are independent variable, and believability and purchasing intention are dependent variable. The design of two way ANOVA is showed in Table 2 and Table 3.

Hypothesis:

\[ H_0: \text{Believability (Group 1)} = \text{Believability (Group 2)} = \text{Believability (Group 3)} = \text{Believability (Group 4)} \]

\[ H_1: \text{At least one of four groups are different from others in believability.} \]
\[ H_0: \text{Purchasing Intention (Group 1) = Purchasing Intention (Group 2) = Purchasing Intention (Group 3) = Purchasing Intention (Group 4)} \]

\[ H_1: \text{At least one of four groups are different from others in purchasing intention.} \]

\[ H_0: \text{There is no interaction between groups and types.} \]

\[ H_1: \text{There is an interaction between groups and types.} \]

After finishing ANOVA parts, I can get whether there is a difference in believability or purchasing intention between these two factors. If there is any difference, then t-test is used to see which factors, group types or advertising types, have an effect on the believability or purchasing intention.

Hypothesis:

\[ H_0: \text{believability mean (comparative advertising) = believability mean (non-comparative advertising)} \]

\[ H_1: \text{believability mean (comparative advertising) ≠believability mean (non-comparative advertising)} \]

\[ H_0: \text{believability mean (Apple Prefer) = believability mean (non-Apple Prefer)} \]

\[ H_1: \text{believability mean (Apple Prefer) ≠ believability mean (non-Apple Prefer)} \]

\[ H_0: \text{purchasing intention mean (comparative advertising) = purchasing intention mean (non-comparative advertising)} \]
$H_1$: purchasing intention mean (comparative advertising) $\neq$ purchasing intention mean (non-comparative advertising)

$H_0$: purchasing intention mean (Apple Prefer) = purchasing intention mean (Apple Prefer)

$H_1$: purchasing intention mean (Apple Prefer) $\neq$ purchasing intention mean (Apple Prefer)

Last, the OLS regression is used to see how much does the factor effects on the purchasing intention or believability.

**Multi regression formulas**

[1]

$\textit{believability} = \alpha_0 + \alpha_1 * \textit{groups} + \alpha_2 * \textit{advertising types} + \alpha_3 * \textit{marriage} + \alpha_4 * \textit{work status} + \alpha_5 * \textit{income} + \alpha_6 * \textit{gender} + \alpha_7 * \textit{age} + \varepsilon$

[2]

$\textit{intention} = \alpha_0 + \alpha_1 * \textit{types of groups} + \alpha_2 * \textit{advertising types} + \alpha_3 * \textit{marriage} + \alpha_4 * \textit{work status} + \alpha_5 * \textit{income} + \alpha_6 * \textit{gender} + \alpha_7 * \textit{age} + \varepsilon$

**V. Result and Discussion**

I begin by conducting two-way ANOVA to see whether there is any difference in purchasing intention and believability between advertising types and prior preferences. However, as table 5 and table 6 shows, I do not find any difference
among all groups in purchasing intention and believability. The smallest p-value is even greater than 0.1. Thus, using T-test is meaningless. OLS regression is used to see whether other demographic factors are correlation with the believability or purchasing intention. Table 7 shows other demographic factors do not have statistic significant correlation with believability and purchasing intention, either.

Several reasons may help to give the explanations. First, unlike the previous literature, my research used a survey method. Such a method lack incentive. I make sure every participants spent at least 3 minutes to read the advertisement, but the average number and mode of believability and purchasing intention still shows participants preferred to choose a “half number”: most of participants are conservative and do not like to choose an extreme answers.

Second, the sample size is too small. More than 100 people was investigated, but finally only 86 gave the valid response. Plus, prior preference cannot be control. Since ANOVA requires two groups should have the same number, for each group there are only 20 people. On the other hand, a marketing research preferred participants have diverse features, but all of my data came from Weber State students. Most of them have relatively the same features in age and annual salary. All of these evidences show that the sample may not be representative.

Third, it is possible that believability or purchasing intention does not have correlation with advertising types and prior preference. Since Raynor is a fictional
brand, only an advertisement cannot bring enough information to participants. Plus, participants cannot obtain more information during the survey. As a result, they prefer to keep neutral. One thing interesting is that, among those 86 valid responds, 36 people list Raynor as their interested brand when asking to choose one as their new laptop. This evidence shows that consumer involvement\(^2\) may affect the advertising effectiveness.

Future study should get a larger and more divers sample to make the result more accurate. As to consumer involvement, Gotlieb and Sarel (1991) have had a research on it, and they find when consumer involvement is high, comparative advertising for a new brand is more effective in pursuing customers than non-comparative advertising. In addition, in this paper, Raynor is a new brand, and future study can test believability and purchasing intention between two existed brands.

\section*{VI. Conclusion}

There is no doubt that advertising is more and more important as a method to develop potential customers and maintain relationship with old customers in competitive markets. Comparative advertising, one of the most popular advertising types, is widely used by companies to differentiate their products with similar

\footnote{The effort and time a consumer spend on making decision. Usually, consumer involvement is low when choosing daily products such as tooth brush; when choosing durable products such as fridge, consumer involvement is high.}
products. However, it is essential to figure out whether a comparative claim will offend some customers and thus make the advertisement less effective.

The results of this study provide evidence that preference and advertising types may not have correlation with the effectiveness of advertising in believability and purchasing intention. In other words, when a company intends to use comparative advertising to advertise a new product, it does not need to worry about whether such a comparison will make its competitor’s fans feel uncomfortable and thus cause a negative effect. Companies can use comparative advertising to differentiate their products among countless competitors.