CONTENT ANALYSIS OF APPEAL IN JAPANESE TELEVISION ADVERTISEMENTS
Case Study of Laptops and Over-The-Counter Drugs

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Abstract: Although research shows that Japanese consumers’ purchase intentions and favorability depends more on the emotional than informational appeal of advertisements for vegetables, a typical low-involvement product, there exists no detailed research into high-involvement products. Therefore, we quantitatively measured the effect of emotional vs. informational appeal on purchase intentions and favorability for two high-involvement products, OTC drugs and laptops. Participants having viewed and evaluated the appeal of TV advertisements, a multiple regression analysis indicated that informational appeal such as “product features” enabled the prediction of purchase intentions for laptops, while “product features” and “feeling of safety” were both significantly correlated to purchase intentions for OTC drugs. Favorability for these two categories was also significantly correlated to the “interesting” variable.

Finally we examined consumer reliability across different media choices. Consumers relied heavily on internet advertising when purchasing laptops, while considering TV advertising to be the most reliable information source for OTC drugs.

Keywords: Television advertising, Laptops, OTC drugs, Purchase intentions, Consumer reliability

1. Introduction

Without advertisements (referred to as ads hereafter), a product remains unknown to the public. The first television ads, for a Seiko clock, in Japan were broadcast in 1953[1]. Since then, how viewers perceive ads has been a subject of discussion in research. Compared with other media choices, television ads have the benefit of building a brand’s ability, the economic impact of which is substantial[2]. Nielsen Catalina Solution and CBS’ joint study in 2014 stated that the long-term impact of television ads might well be greater than twice the short-term impact on revenues[3]. Based on copy testing, other scholars also suggested that advertising effectiveness is determined by three main factors[4-7]. First, it depends heavily on market share within the industry: the larger the market share, the better the advertising performance, accounting for around half of its effectiveness. Second, 80% of drivers underlie media choices or other “unexplainable” factors. Third, only 20% of advertising effectiveness is determined by its persuasive message and distinctive content[6].

Thus, advertisers concentrate on designing the content of ads to fully utilize this 20% effectiveness. The content is usually categorized into informational and emotional appeal[8, 9]. Some scholars suggest that the former one functions as persuasion, arousing demand during the pre-purchase phase. The latter one functions as entertainment and reinforcement, possibly enhancing brand awareness and encouraging repeat purchases during the post-purchase phase[8]. Supporters of informational appeals claim that ads should persuade consumers by facts to improve their understanding and ultimately change their attitudes; while supporters of emotional appeals assert that it is more important to entertain viewers and stimulate aspirations to influence their experience of the product[9].

The level of involvement, reflecting the extent to which consumers are interested in purchasing a product, is recognized as a major variable during advertising communication[10]. Our previous study sampled vegetables
ads, low-involvement products[11-13], to quantitatively examine Japanese consumer attitudes and purchase intentions[14]. The result indicated that Japanese consumers prefer emotional ads for low-involvement products. This was similar to the findings of You et al.[15], who tested how the informational and emotional appeals of logo design contributed to purchase intentions. Interestingly, Japanese consumers behaved rationally when evaluating alternatives but emotional variables played a decisive role in vegetable purchases[15]. Further, Cui et al. examined Chinese consumers’ attitudes to a variety of product categories and found that they preferred emotional over informational appeals for both low- and high-involvement products[16]. Therefore, it stands to reason that the appeal category is a critical incentive to Japanese consumers’ purchase intentions for high-involvement products. We believe research into this topic will help our understanding of Japanese consumer behavior.

In this study, we sample ads for laptops and over-the-counter drugs (referred to as OTC drugs hereafter), both being typical high-involvement products due to their value and personal preference. OTC drugs also involve the issue of high personal risk, which requires a higher level of involvement.

Moreover, from Dentsu’s annual report on advertising expenditure in Japan, it is known that television ads occupied the largest share of expenditure in 2014, while that on Internet ads became increasingly prevalent due to the growth in the smartphone market and new advertising technologies[17]. There are also indications that advertisers of laptops tend to reach their target group through, other than television, mainly magazines. In accordance with the data, we are also interested in examining consumers’ reliability across the various media options.

Thus, this study addresses three research objectives:

1. Examining consumer attitudes and purchase intentions towards television ads for high-involvement products, with a focus on young Japanese consumers;
2. Quantitatively examining the attribution of the informational/emotional appeal of television ads;
3. Examining Japanese consumer perception of advertising, classified by medium.

2. Methods
2.1. Participants
The survey included 49 Japanese university students: 23 male, of which 19 were in their 20s, and 26 female, of which 16 were in their 20s. These students came from across the country and thus effectively represent the young consumer groups in Japan. Moreover, university students are also the main target group for laptops and potential consumers of self-medication. For the purpose of this study, medical school students were excluded.

2.2. Samples
There were twenty samples of on-air television ads for laptops and OTC drugs, all of which had been broadcast to the Japanese domestic market and lasted 30 seconds. According to the Pharmaceutical Affairs Act, revised by the Japan Ministry of Health, Labour and Welfare and enforced in 2009, OTC drugs were categorized into three classes according to the degree of risk[18]: first-class OTC drugs carry the highest risk and third-class ones the lowest. We adopted second-class OTC drugs for our advertising samples, with information about the degree of risk displayed at the end of each ad. For laptop ads, we chose products that were for personal use, taking into consideration the background of our mainly young participants. We employ the laptops, which run Windows and also those run Macintosh as our experiment samples.

2.3. Experimental procedure
The procedure is the same as that used by Zhang et al.[14], a survey consisting of three parts and implemented in Japanese. The first part contained questions evaluating impression and purchase intention. An Apple MacBook with a 13.3-inch, 1280×800-pixel display was used for the viewing, at a distance fixed at 57 cm. After independently viewing the pre-selected samples in random order, each participant evaluated them using the survey questionnaire.

Evaluating impression included two aspects: that of informational and emotional appeals. Useful information, new information, and product features were three criteria against which informational appeal was evaluated: useful information referred to that which would affect purchasing decisions; new information explained understanding of the ads; description of product features highlighted the level of dominance of product-relevant messages. On the other hand, emotional appeal mainly included elements of loveliness, interest, and feelings of safety. We employed a five-point Likert scale as the measurement tool (5: Very much; 4: Quite a bit; 3:...
Neither; 2: Not much; 1: Not at all). A sample of the questions is presented in Table 1. The second part of the survey included the questions regarding consumers’ reliability across three media for each product category, and the third part covered demographics such as gender, age range, and nationality. We obtained written informed consent for our research work, which was approved by Chiba University ethical committee.

### Table 1. Questions related to impression evaluation

<table>
<thead>
<tr>
<th>Item</th>
<th>Question</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you think the commercial contains useful information? (Useful Information)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Do you think the commercial contains new information? (New Information)</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Is the description of the product detailed in the commercial? (Product Feature)</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Do you think the commercial is lovely? (Loveliness)</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Do you think the commercial is interesting? (Interest)</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Do you have a feeling of safety towards the product? (Feeling of Safety)</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>How much do you like the commercial? (Favorability)</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>How much are you willing to purchase the product? (Purchase Intention)</td>
<td>8</td>
</tr>
</tbody>
</table>

#### 2.4. Analysis method

Multiple regression analysis was implemented to measure the correlation between a dependent variable and multiple independent variables[19]. Here, we treated the informational and emotional appeals of commercials as independent variables and purchase intention and favorability as dependent variables. In addition, the independent t-test analysis was used where there were two experimental conditions and different participants used in each[20]. Here, it was applied to represent customers’ reliability across different media options.

#### 3. Results

##### 3.1. Multiple regression analysis for laptop advertising

For each independent variable, the average rating for the twenty ads was obtained from each participant. The standardized regression coefficients, $R^2$ value, and $p$-values are reported in Table 2.

The ANOVA for multiple linear regression tests the significance of the independent variables at predicting the change in a dependent variable. Here, it is known that the model is a significant fit to the data $[F(6,42) = 5.6, p = .00 < .001]$ when the dependent variable is set as purchase intention. The $R^2$ value measures how much of the variability in the outcome is accounted for by the predictors, and accounts for 44% of the variance in purchase intention ($R^2 = .44$) in this case. As the data shows, product feature is the only independent variable that correlated to purchase intention ($\beta_{product\ feature} = .00 < .01$), and its coefficient of regression is .81. When analyzing the regression of favorability on different independent variables, it can be seen that the validity of the linear equation is significant $[F(6,42) = 7.99, p = .00 < .001]$ , and is able to account for 53% of the variance in purchase intention ($R^2 = .53$). Interest is the only valid independent variable to predict the change in customers’ favorability towards laptop advertising ($\beta_{interest} = .00$), and its coefficient of regression is .51.

##### 3.2. Multiple regression analysis for OTC drug advertising

This outcome describes whether the predictors make a significant contribution to assessing the change in the dependent variable in the model. When the dependent variable is purchase intention, we find that the ANOVA is significant $[F(6,42) = 5.44, p = .00 < .001]$ , accounting for 44% of the variance in purchase intention ($R^2 = .44$). Product feature and feeling of safety both correlate to purchase intention ($\beta_{product\ feature} = .04; \beta_{feeling\ of\ safety} = .00$).
When analyzing the regression of favorability on different independent variables, it can be seen that the validity of the linear equation is significant \( F(6,42) = 9.92, p = .00 < .01 \), and accounts for 59% of the variance in purchase intention \( R^2 = .59 \). Interest and feeling of safety are both valid independent variables to predict the change in customers’ favorability towards OTC drug advertising \( p_{\text{interest}} = .00; p_{\text{feeling of safety}} = .03 \), with coefficients of regression as .49 and .27, respectively.

### 3.3. Consumer perceptions towards advertising classified by medium

Figure 1 demonstrates Japanese consumers’ perception of the reliability of laptop and OTC drug ads broadcast on three media. On average, the internet \( (M = 3.73, SD = .91) \) was considered to be a higher credibility source than television \( (M = 3.12, SD = .90) \) for laptop ads. Equal variances were assumed between the groups \( [F = .76, p = .39 > .05] \), and this difference was significant \( t (96) = 3.34, p = .001 < .01 \). Laptop ads in magazines \( (M = 3.76, SD = .92) \) were also considered more reliable than those on television. Again, equal variances were assumed between the groups \( [F = .31, p = .58 > .05] \), and this difference was also significant \( t (96) = 3.42, p = .001 < .01 \).

Meanwhile, consumers’ attitude towards the reliability of OTC drug ads is also depicted in the same figure. The values of reliability were: television \( (M = 3.45, SD = 1.03) \), magazine \( (M = 3.06, SD = 1.11) \), and internet \( (M = 2.78, SD = 0.98) \). Equal variances were assumed between reliability on television and internet \( [F = .05, p = .82 > .05] \), and the difference was significant \( t (96) = -3.32, p = .001 < .01 \).

![Figure 1. Consumer reliability on laptop and OTC drug ads across three media](image)

4. Discussion and conclusion

Results of the analysis show that young Japanese consumers experience a more emotional response when evaluating the favorability of ads but are rational when making purchasing decisions with regard to high-involvement products. The appeal of product features in the sample laptop ads displays a predictive capability in forecasting purchase intention; none of the emotional appeal affects that decision, however. When watching the sample OTC drug ads, the product features, an informational appeal, and the feeling of safety, an emotional appeal, both contribute to purchase intention. On the other hand, consumers’ favorability depends mainly on the interesting aspect of the ad, rather than persuasive messages. This outcome is evidently consistent with the study of Pelsmacker et al., who showed that favorability towards ads cannot determine viewers’ purchase intentions, which are induced by different variables[21].

Earlier studies focusing on information processing may also be helpful in explaining our results. These apply to the difference in advertising perceptions between people in Asian and Western nations[16,22]. Asians, such as the Chinese and Japanese, tend to be more holistic in their thinking, while Westerners, such as Americans, tend to be more analytical[23]. Many of these studies state that Asian consumers are more attracted to ads that they feel moved by, whereas Western consumers put more emphasis on persuasive facts used in ads[24].

It has been acknowledged that consumer choice could be influenced by the attributes of a product. For instance, fact-based ads are more persuasive for utilitarian goods (e.g., pain relievers, gasoline), while emotional ads are more attractive for hedonic goods (e.g., cigarettes, video games)[25]. However, as the purpose of consumption is not covered by our survey, it is not clear how participants perceive the attributes of products: whether the participants viewed laptops as tools for studying or devices for playing games; whether they regarded OTC drugs as pain relief or supplementary medicines. In addition, even though we defined the feeling of safety as an emotional criterion, it is difficult to determine whether the participants thought in this way. As Krugman states, persuasion in advertising likely acts at an unconscious level, so that viewers assimilate the content without becoming involved[26]. In our case, we are not sure whether the feeling of safety derives from the description of the products or the ad itself, such as the storyline and background music. We therefore believe that the element in
television ads that could create the feeling of safety is a topic worth discussing in the future.

Along with the results of our previous research, this study provides evidence that young Japanese consumers are more receptive to emotional appeals for low-involvement products and informational appeals for high-involvement products with regard to purchase intention. Our experiment simultaneously offers an overall view of Japanese consumer perceptions of media choice. OTC drug ads on television are the most reliable mass media resources, while consumers rely heavily on information on the internet to make decisions on laptop purchases.

5. Acknowledgment

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6. References

