Abstract

Consumers rely on media in seeking risk information about their products. Many of the products that consumers encounter commonly in everyday life are the results of highly sophisticated processes from the beginning of production to the completion stage, forcing consumers to rely on the opinions of the experts through the media in obtaining information about products. The purpose of this study was, accordingly, to analyze the actual processes in which risk information messages are provided to consumers. It is suggested that the consumers are likely to fall in risky situation due to their lack of knowledge of coping measures. It is considered, therefore, that risk communication or risk reporting in the future should provide personal measures as a prognostic framing together with diagnostic framing.

[Keywords] Content Analysis, Consumers, Media, Household Chemical Products, Information

1. Introduction

The 'communication' has emerged recently as an important social issue. Human beings as a member of a society and some community have a common interest. Media plays an important role as a tool in such communications as expression of opinion and response to each other. The media provide consumers with a various information from political issues to social, economic, and cultural information. The information released by press on safety issues closely related to life such as food safety issues, safety accident due to household chemical products, and cosmetics accident plays an important role as a clue when customers evaluate risks. The consumers' responses to the risk information provided through the media, however, can vary greatly depending on the type and content of the information and how they are structured. The risk information provided through the media plays an important role in recognizing and controlling the risk situation, while some of them causes the consumer to overestimate the risk and becomes a wrong-directed social movement.

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their behavior. The phenomenon that consumer's judgment or selection changes according to the information frame is called 'framing effects'. The anchoring effect and framing effect proposed in the Prospect Theory by Kahneman and Tversky(1979) have been applied to subsequent studies on persuasive messages[1]. When the people is exposed to a message that persuades them to adopt behavior containing risk, for example, they evaluate, from a subjective perspective, the benefits and losses resulting from adopting the behavior and then choose or avoid the proposed behavior. At this time, their subjective perception may vary depending on the framing structure of the message. Kasperson, et al.(1988) suggested the importance of frames of risk reporting, arguing that when media frequently report risks focusing on risk assessment content, consumer anxiety is stimulated and social amplification may occur. That means that the effect of message framing depends on the situational context.

3. Materials and Method

3.1. Research material

This study sought to recommend a strategy for consumer-oriented risk communication based on the media coverage, thus chosen the media coverage on safety problem of household chemical products, which are emerging as an issue in the field of consumer research, as a research material.

With the fatal accident due to humidifier disinfectant in May 2013, public interest in the safety of household chemical products including humidifier disinfectants increased. As of July 9, 2013, eight items of household chemical products have been designated and managed in accordance with the "Quality Control and Safety Management of Industrial Products Act". The other items not covered by the act, however, are distributed without separate safety confirmation procedures or instructions for use, threatening the consumer safety using those household chemical products. Most consumers, due to lack of knowledge about harmful substances, experience consumer problems such as difficulty in judging the safety of the product by using the indication of ingredients and contents described in the product instruction manual.

This study, accordingly, set the household chemical products as research material and analyzed the media coverage releases for the past three years from Jan 2016, when consumer interest in household chemical products increased, to Dec, 2018.

3.2. Research problems

The research problems of this study are as follows

[Research Problem 1] To draw risk information message framing useful for consumer, through review on previous studies

[Research Problem 2] To investigate the actual situation of message framing in media coverage for consumers.

3.3. Method

The content analysis, a research method of describing communication objectively, systematically, and quantitatively[2], is used to understand the past and to predict the future by analyzing past materials such as available books, speeches, newspaper articles, soap operas, magazines, and internet bulletin board. The method of classifying the contents in contents analysis varies according to research field and researcher. This study borrowed the method of contents analysis application of Hong and Lee[3], thus classified the message types according to the contents contained in the message.

4. Results

4.1. Frame of risk communication

This study, based on the previous study by Song[4] who investigated the effects of exposure on consumer behavior in risk communication, classified message frames into the diagnostic framing and the prognosis framing[5][6]. The diagnostic framing defines the
problem or identifies the cause of the problem, while the prognosis framing suggests measures to overcome the risk. The diagnostic framing is also divided into gain message and loss message according to the result of the action. The criteria for distinguishing the gain message and the loss message are whether the contents of the diagnostic framing are a significant threat to the individual’s goal or not; the positive frame is a gain message that it is safe, and the negative frame is a loss frame that it is dangerous[4]. Song[4], in particular, argued that when delivering the risk information to consumers, the ‘coping measure’ as prognostic framing should be accompanied.

### Table 1. Risk communication massage frame.

<table>
<thead>
<tr>
<th>Type</th>
<th>Diagnostic Framing</th>
<th>Prognosis Framing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Frame 1</td>
<td>Gain Framing</td>
<td>Coping Method to Risk</td>
</tr>
<tr>
<td>Message Frame 2</td>
<td>Loss Framing</td>
<td>Coping Method to Risk</td>
</tr>
</tbody>
</table>

### 4.2. Report state of risk communication

In order to confirm the actual state of media coverage on household chemical products, a search was conducted at naver, a leading portal, with household chemical products or household chemical goods as key words, to perform content analysis of report articles listed in three major daily newspapers: Chosun Ilbo, Joong-ang Ilbo, and Dong-a Ilbo. A total of 45 articles were analyzed, among which, 34 articles provided a diagnostic message indicating danger, and 11 ones provided those indicating safety.

In the case of risk information, it was shown that 10 cases provided only diagnostic framing without prognosis framing, 18 cases provided only social coping measures, four cases provided only personal coping measure, and two cases provided both social and personal coping measures. In the case of safety message, 10 cases provided only diagnostic framing without prognosis framing, six cases provided only social coping measures, three cases provided only personal coping measure, and no cases provided both social and personal coping measures. The prognosis framing was shown to be used most commonly in providing the social coping measure regardless of the type of diagnostic framing.

### Table 2. Analysis of media coverage content frequency(percentage).

<table>
<thead>
<tr>
<th>Diagnostic message</th>
<th>Diagnostic Framing</th>
<th>Prognosis framing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Social</td>
</tr>
<tr>
<td>Risk message</td>
<td>34(100.0)</td>
<td>10(29.41)</td>
</tr>
<tr>
<td>Safety message</td>
<td>11(100.0)</td>
<td>2(18.18)</td>
</tr>
<tr>
<td>Total</td>
<td>45(100.0)</td>
<td>12(26.67)</td>
</tr>
</tbody>
</table>

### 5. Conclusion and Recommendation

Song(2019) measured the information literacy of consumers who are provided with risk communication and reported that, regardless of type of risk communication, the literacy level was highest in diagnostic message, and followed by social coping measure from prognostic message and lastly, personal coping measure from prognostic message. This indicates that consumers have high level of understanding of risk situation but a relatively low level of understanding of coping method in risk situation. The results of this study, however, showed that the personal coping measures as a prognosis framing was rarely provided. Combining these results with analysis results by Song[7], it is suggested that the consumers are likely to fall in risky situation due to their lack of knowledge of coping measures. It is considered, therefore, that risk communication or risk reporting in the future should provide personal measures as a prognostic framing together with diagnostic framing.

### 6. References

6.1. Journal articles


6.2. Thesis degree


6.3. Books


6.4. Additional references


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