International Food Research Journal 22(5): 1878-1882 (2015)
Journal homepage: *http://www.ifrj.upm.edu.my*

Risk communication for GM foods in South Korea: The role of media and government

*Kim, R., Chao, Y. and Yoon, D.H.

School of Business, Hanyang University, 222 Wangsimri-ro, Sungdong-gu, Seoul Korea 133-791

Article history

Received: 23 September 2014
Received in revised form: 7 April 2015
Accepted: 13 April 2015

Keywords

Risk communication
Media
GM foods
Government policy
Food safety

Abstract

Understanding of Media's risk perception towards GM foods is important since media is the direct contact for the public in terms of information source for GM foods. How media disseminate information on GM in its medium have significant impact on the public opinion and attitude towards sensitive issues such as GM foods. The purpose of this paper is to explore media's perception of risk towards GM foods in South Korea through a qualitative study. The study explicitly compare the difference of risk perception of GM foods among two major journalist groups: general journalists vs. science-journalists. It is appropriate to segregate these two journalist group for the evaluation since they have different approach and impact on risk communication of GM foods in South Korea. General journalists were found to have relatively limited knowledge on GMOs and their attitudes were similar to consumers who have vague anxiety for GM foods. Science-journalists were found to have relatively higher level of knowledge on GMOs and their attitudes were objective and relatively more open-minded compared to the general journalist group. This group of journalists appeared to have more trust towards gene technology compared to the other group. Findings from this study shed light for government in terms how to differentiate risk communication strategy for general journalists and science-journalists.

Introduction

Concerns for food safety and distrust for genetically modified (GM) foods in South Korea is significant and the degree of concern about GM foods has increased during the last decade due to several food safety scares. Consumer survey (n=339) in South Korea showed that 82% of the respondents were highly concerned with food safety, and only 13.6% of the respondents considered that food supply system in South Korea is safe. This study also reported that consumers tended to be more careful about their food purchase after they were exposed to media press of food safety incidents (Kim, 2007). Public perceptions of the risks associated with GMOs range across a wide spectrum of positions and include ethical concerns such as 'meddling with nature' and social issues, such as claims that multinational corporations might seek to achieve market dominance by controlling access to the technology (DHA, 2007). Public opinions towards food risk evolve in quite orderly process and that a public attitude start with "raw opinion" and move toward public judgment in complicated process that involves sorting through and coming to terms with conflicting emotions, values and interest around a given issue (DHA, 2007). While reaching public judgment does imply a deeper resolution to an issue, it may reasonably be expected to fall somewhere between the ultimate goal of "wisdom" and the more common notion of a "well-informed citizenry" (Yankelovich,1991). Different stakeholders and groups may perceive risk in different ways and may have different attitudes to risk as risk perception can be affected by various factors such as socio-demographic factors, psychological factors and cultural/ethical factors. Difference in the perceptions of risk by various stakeholders may also influence response of stakeholders to GMO issues, which ultimately lead to acceptance/rejection of GM foods.

Difference in risk perception and approach to GM food issues among different groups may potentially lead to conflicts among groups and social unrest. This may be diminished by developing an effective risk communication strategy. Effective and efficient risk communication may enable building trust and stability in the public and offer an opportunity for the pubic to be able to assess GM issues objectively. Therefore, it is imperative that policy-makers have in-depth consultation with a various group of experts, key stakeholders, including the public and the media, and attempt to develop an effective strategy for risk communication of GM foods among different groups. Risk communication involves an interactive dialogue between stakeholders and risk assessors and risk

*Corresponding author.
Email: *kimrby@hanyang.ac.kr*
Tel: +822 2220 2597

managers which actively informs the other processes. Effective risk communication may lead to minimize conflicts and improve understanding of perceptions and positions of each stakeholder groups and to achieve equitable outcomes (Gough, 1991). It aims to ensure the clarity, transparency and accountability of the policy-makers' decision making processes and to include public input in the process. Assessment of perceptions of different stakeholders may enable exchange of information and opinion between individuals, groups and institutions concerning risk of GMOs and promoting a clear understanding of all aspects of risk and the particular positions of interested parties.

Among important stakeholder groups, the media play a critical role in risk communication and the formation of public opinions on an issue, as the media is a significant information source for the public. In South Korea, there have been approximately 1228 cases of press announcement of food safety incidents in recent years, and the media cited 60.5% of the information source from ministry of Health and Korea Food & Drug Administration (KFDA) agency in South Korea (KFDA, 2007). This implies that the media plays an important role in delivering government's risk communication with the public. The media not only provide risk information to the public, but also draw public attention to GM foods by bridging issues which may result in creation of a sense of urgency for GM foods. The media coverage on GM food issues may even amplify the public concerns in addition to drawing their attention (Bennette, 1999). Media coverage of GM foods tends to highlight existing concerns, uncertainties and conflicts, rarely question the legitimacy of any source, and present all sources on a rather equal footing, and this style of communication rarely comes close to true risk communication (Chartier and Gabler, 2000). Often information regarding food risks or GM foods is provided to the public with little or no analysis of its technical accuracy (Kasperson, 1992). News coverage that presents as adversarial often actually retards progress towards dealing meaningfully with issues, and the adversarial position rarely corresponds to the real views of most people (Yankelovich, 1991). Dread news such as food risks or GM foods tend to attract audience interest and enhance marketability of news, and heavy media coverage of potential adversarial aspects of GM foods may have a measurable effect by introducing "availability bias" to risk perception of the public. This is a bias result occur when events can be easily recalled by the public, and these events are perceived to be more frequent and this in turn leads to an overestimation of the frequency of the event. On the other hand, when journalists attempt to explore conflicting values surrounding issues, then the mass media do become a useful forum for generating the actual process of public deliberation (Chartier and Gabler, 2000). Thus, successful development of risk communication among stakeholders, in particular with the pubic requires an effective role play of the media in the process of managing risk issues related to GM foods.

The purpose of this paper is to explore media's perception of risk towards GM foods in South Korea through a qualitative study. Findings from this paper may provide a guide for policy-makers regarding the rationale and approach to risk communication with the media in South Korea. The study explicitly compare the difference of risk perception of GM foods among two major journalist groups: general journalists vs. science-journalists. It is appropriate to segregate these two journalist group for the evaluation since they have different approach and impact on risk communication of GM foods in South Korea. Findings from this study shed light for government in terms how to differentiate risk communication strategy for general journalists and science-journalists.

Risk perception of general journalists and science-journalist for GM foods

There are two types of journalists in South Korea who publish information regarding GM foods such as general journalists and science-journalists who are specialized in science subject area and this type of journalists typically have educational background in Science subjects. In terms of publication, general journalists may report sporadically an article regarding GM foods as a special edition in newspapers, television and magazines, while science-journalists follow through the GMO issues by regular publication of the issues on advanced magazines and regular science-section in newspapers or TV programs, thus tend to have higher level of knowledge and information on GM foods. Both group of journalists have important effects in risk communication with the public through various outlets of media. Difference in the extent of knowledge and information for GM foods may contribute to difference in their attitude or perception of risk towards GM foods. Therefore, it may be important to understand difference in their risk perception which may help policy-makers in establishing differentiated framework for risk communication with different group of journalists.

Two open-forums for two groups of journalists were conducted in order to elicit information on risk perception, knowledge and preference for GM

foods of journalists in South Korea. Short survey was conducted in these open-forums along with qualitative discussions among the participants. The interviews were conducted at; 1) the Government of Republic Korea, Food and Drug Administration Agency with 22 general journalists; 2) Dong-Ah News Paper Corporation, Dong-Ah Science Journals with 20 science-journalists. The purpose of these forums was to; 1) compare two groups of journalists regarding risk perceptions, knowledge level and preference of GM foods; 2) compare the approach which are taken by the two groups of journalists in obtaining information on GM foods; and 3) assess different response of the two groups when government announce information for food safety issues. Following are four main questions which were answered by both groups of journalists.

a. What are the reasons for rejecting GM food purchase?

General journalists stated 'vague anxiety for GM foods' as the reason for rejection of GM food purchase, while science-journalists stated 'distrust towards gene technology' for rejecting GM food purchase. General journalists were similar to typical consumers who do not have limited knowledge of GM foods, which may lead to vague anxiety for GM foods. In contrast, science-journalists had more specific rationale for rejecting GM food purchase as they were concerned about the premature status of gene technology application. Difference in their preference for GM food purchase may be associated with their academic backgrounds and level of pre-knowledge on GM foods.

b. What is the most critical issue that needs to be resolved or addressed in order to successfully commercialize and market GM foods?

General journalists identified 'vague anxiety of consumers', and science-journalists identified 'safety of GM foods for human health' as the most critical issue in South Korea. General journalists considered consumer acceptance of GM foods to be more important than verification of GM food safety. Science-journalists had more scientific approach to the issue as they focused on potential hazard of GM foods and this group of journalists had more trust on gene technology itself.

c.How do you obtain information regarding GM foods? Which route do you use to seek information?

General journalists obtained information on GM foods primarily from mass media, while science-journalists searched information on GM foods both from mass media and advanced science journals and magazines.

d. If GM foods are in the process of making a major inroad to the world market, what do you think the Korean government should do to respond & prepare for this?

General journalists suggested that government should provide comprehensive information on GM foods to the public through effective risk communication channels since the public considered that they have the right to know and prefer to make informed choices on GM foods. General journalists argued that it is the government's role to develop an effective risk communication network between the media, the public and policy-makers and the media can only play an effective intermediary role in disseminating right information of GM foods to the public when policy-makers provide an efficient risk communication framework.

Although government (i.e. KFDA) has been cited as the main source of information on food safety and GM foods by general journalists, many of these reports described government in negative tone. This led to public's distrust in government for GM foods and food safety issues. This may be primarily due to limited access of general journalists for government information on GM foods, and they mostly end up simple reporting of food safety incidents or economic impact or causes of such incidents and these type of media reporting omitted information on the extent of risk probability which has scientific-base. Thus, general journalists and the public may develop vague anxiety due to lack of transparency in the information disseminated by the government. On the other hand, science-journalists were more progressive in dealing with GM food issues. They argued that government should strengthen safety inspection and test for GM foods in order to prevent unnecessary distrust and misunderstanding of GM foods by the public. Thus, the two groups of journalists appear to have different approach in dealing with GM food issues.

Overall, general journalists were found to have relatively limited knowledge on GMOs and their attitudes towards GM foods were found to be similar to consumers who have vague anxiety for GM foods. Science-journalists were found to have relatively higher level of knowledge on GMOs and their attitudes were found to be objective and relatively more open-minded compared to the general journalist group. This group of journalists appeared to have more trust towards gene technology compared to the other group. The explorative study on Korean journalists demonstrated that different background

and knowledge level of GM foods have significant impact on journalists' perception and attitudes towards GM foods. Since these journalists affect the public's opinion in South Korea with their dissemination of information on GM foods through medium of mass media and selective media, policy-makers may need to pay careful attention in managing the media and it may be necessary to develop differentiated risk communication strategy for two groups of journalists.

Implications for government's risk communication strategy

In order to develop an effective risk communication strategy, the importance of 'trust' may need to be addressed. Trust, by definition, is characterized to have various features including: perceived competence, objectivity, fairness, consistency and good will. The success of risk messages delivered to the public ultimately depends on 'trust' or credibility of the message source. Building trust has become a critical success requirement for risk communication. Source credibility does appear to be an important factor in building an effective risk communication with the public. Government typically make major announcement on food safety issues through media broadcasting and newspaper publishing. Although it is government who provide information on GM foods, media is the direct contact to the public as the media is the one which provide information to the public through its medium. Thus, how media disseminate information on GM in its medium have significant impact on the public opinion and attitude towards sensitive issues such as GM foods. This suggests that it is imperative for Korean government to develop a two-way proactive communication system with the media (journalists) to build an effective risk communication with the public. Also, it may be necessary to consolidate risk communication channel by having a single source for press release and to provide feasible solutions and policies.

Research has shown that in case of GM foods, persuasive messages from a less trusted source have been shown to have a negative effect on the recipients' acceptance of the message (Frewer, 1999). The public may tend to rely more on the information that are reported by science –journalists compared to general journalists who have more specific background and expertise in GM foods. From Korean government's perspective, it is promising that science-journalists are more open to gene technology and GM foods compared to general journalists. In terms of emphasis on risk communication effect to build solid connection with the media, Korean government may need to pay attention to what science-journalist expect in GM food issues. As the findings suggested, there should be more safety inspections and scientific research outputs for GM foods which are led by Korean government in order to provide appealing arguments to science-journalists. Communicating about science may be a critical piece of puzzle in the risk communication of GM foods with science-journalists in South Korea.

On the other hand, general journalists tend to show risk perception and attitude towards GM foods which is similar to the public. In order to address, general journalists' concerns for GM foods, Korean government may need to approach them in conjunction with their risk communication with the public. While the public's perception of risk in the food supply may be very specific, and related to media coverage, generally the public is apathetic about risk and have under-response (Sandman, 1994). Consumers are rather skeptical about government information as being perceived to be inconsistent and unclear. KFDA's study (2007) reported that 62.1% of the respondents were discontent with government's food risk management and their policies (Kim, 2007). To change this notion, there is the need for a culture shift that embrace the concepts of openness, responsiveness, public perception, trust, participation and ethical issues at an early stage (Dole, 1999). Thus, government, a main risk information source, is considered by the public to be a less than trusted source of risk information with distorted, biased and incorrect risk information. Nonetheless, the pubic still needs to trust in its decision-makers and regulators in managing hazards since government is the main source of managing hazards (Chartier and Gabler, 2000). Research has shown that people tend to avoid leaning about subjects they fear, and an increased public understanding of science alone is unlikely to influence acceptance of a particular technology that is perceived as potentially risky (Fewer, 1999). Thus, typical risk communication strategy such as public education may be limited in dealing with GM food issues. Therefore, government may need to use various outlets and approach to connect with the public, in particular, with cooperation of the media, in managing risk communication of GM foods. Various strategies need employed to inform, educate, persuade, negotiate, reassure and warn the public. It is important for the Korean government to understand the nature of media that journalists are fact-oriented and they report with limited time and space for publication. This implies that the government may need to be efficient in information sharing with the media and be proactive. Delayed announcement by the government may lead to distrust both by

the media and the public and it may be better to explicitly explain reasons for delay in information dissemination.

However, some limitation cannot be ignored in pursuing such effective risk communication. Public engagement with stakeholders seems to be a popular trend, nonetheless, it involves substantial resources for government to engage the public and the media through open-forums, participative decision-making, and provision of full disclosure on information of GM foods may result in unintended adversarial or over-response by the public. Different form of public engagement range from focus groups to citizen's jury to Internet forum, and each initiative will entail a different level of resource use (Chartier and Gabler, 2000). However, government should understand that suppression of relevant information on GM foods may seem to be an easy choice for decision-makers, this is not only wrong but is over the longer term, ineffective (NRC, 1989). Also, presenting facts along will do very little to bridge the gap between the public and general journalists' subjective risk perception and actual risk, and it is critical for government to understand that public view and value are integral part of risk communication (Renn,1998). As long as value issues remain unsolved, even the best technical expertise and the most profound competence cannot overcome social, cultural and political value conflicts (Metlay, 1999). In case, the policy-makers released inaccurate information on GM foods or food safety, it is critical that the government officials acknowledge the mistakes promptly to preserve the credibility.

In particular, government may have regular press conference or joint workshop, symposium with groups of general journalists to get them engaged in the process of incorporating pubic view and opinion instead of providing opportunity for airing fixed views. By having proactive connection with general journalists, meaningful engagement of the public may be achieved and 'vague anxiety' that has been mentioned frequently by general journalist may be diminished. It is important for government to remember that general journalists and science-journalists may act as opinion leaders of the public and having substantive and deliberative process of media engagement may be a sensible strategy for policy-makers to take in order to have a solid development of risk communication of GM foods in South Korea.

Acknowledgement

The research reported is funded by the Social Science Korea (SSK) Research Grant of the National Research Foundation of Korea (NRFK), (#B00096)

References

Chartier, J. and Gabler, S. 2000. Risk Communication and Government: Theory and Application for the Canadian Food Inspection Agency, Public and Regulatory Affairs Branch, Fall 2000.

Coles, D. 1999. The Identification and Management of Risk: Opening up the Process. In, Risk Communication and Public Health. P. Bennet and K. Calman, (eds), New York, Oxford University Press : 195-206.

DHA (Department of Health and Ageing) Australian Government. 2007. Risk Analysis Framework, Office of the Gene Technology Regulator.

Yankelovich, D. 1991.Coming to Public Judgement: Making Democracy Work in a Complex World. Syracuse University Press.

Gough, J.D. 1991. Risk communication: the implications for risk management. Information Paper No. 33. Centre for Resource Management, Lincoln University, Canterbury, New Zealand.

Frewer, L.J. 1999. Public Risk Perceptions and Risk Communication. In, Risk Communication and Public Health. P. Bennett and K. Calman, (eds), New York, Oxford University Press : 20-32.

Metlay, D .1999. Institutional Trust and Confidence: A Journey into a Conceptual Quagmire. In, Social Trust and the Management of Risk . G. Cvetkovich and R. E. Lofstedt, (eds), London, Earthscan Publications : 100-116.

Kim, S.H. 2007. A study of risk communication for minimizing food crisis by case study, Korea Food Drug Administration (KFDA) Project No. 06032-733.

National Research Council. 1989. Improving Risk Communication, Washington, D.C., National Academy Press.

Renn, O. 1998.The Role of Risk Communication and Public Dialogue for Improving Risk Management, Risk, Decision and Policy, 3(1):5-30.

Bennett, P. 1999. Understanding Responses to Risk: Some Basic Findings. In, Risk Communication and Public Health. P. Bennett and K. Calman (eds.), New York, Oxford University Press : 3-19.

Sandman, P. M. 1994. Risk Communication. In, Encyclopedia of the Environment. R. A. Eblen and W. R. Eblen (eds), Boston, Houghton Mifflin : 620-623.

Kasperson, R. E.1992. The Social Amplification of Risk: Progress in Developing an Integrative Framework. In, Social Theories of Risk. S. Krimsky and D. Golding, Westport, CT, Praeger (eds) : 153-178.