

Consumption Patterns and Perception Analyses of Hangwa

Chang Geun Kwock, Min A Lee[†], and So Hyun Park

Korea Food Research Institute, Gyeonggi 463-746, Korea

Abstract

Hangwa is a traditional food, corresponding to the current consumption trend, in need of marketing strategies to extend its consumption. Therefore, the purpose of this study was to analyze consumers' consumption patterns and perception of Hangwa to increase consumption in the market. A questionnaire was sent to 250 consumers by e-mail from Oct 8~23, 2009 and the data from 231 persons were analyzed in this study. Statistical, descriptive, paired samples t-test, and importance-performance analyses were conducted using SPSS WIN 17.0. According to the results, Hangwa was purchased mainly 'for present' (39.8%) and the main reasons for buying it were 'traditional image' (33.3%) and 'taste' (22.5%). When importance and performance of attributes considered in purchasing Hangwa were evaluated, performance was assessed to be lower than importance for all attributes. The attributes in the first quadrant with a high importance and a high performance were 'a sanitary process', 'a rigorous quality mark' and 'taste', which were related with quality of the products. In addition, those with a high importance but a low performance were 'popularization through advertisement', 'promotion through mass media', 'conversion of thought on traditional foods', 'a reasonable price' and 'a wide range of price'. In conclusion, Hangwa manufacturers need to diversify products and extend the expiration date based on technologies to promote its consumption. In terms of price, Hangwa should become more available by lowering the price barrier for consumers who are sensitive to price.

Key words: Hangwa, consumer, consumption patterns, perception

INTRODUCTION

As consumers' interest in safe and eco-friendly foods has increased, consumption of low-fat, low-calorie and healthy snacks became a major trend (1). In particular, Hangwa, or a representative traditional food, which is made of mainly glutinous rice flour and nuts along with traditional ingredients such as honey, chestnut, jujube, pine nut and sesame oil, ginseng, green tea, laver and medicinal herbs, has its characteristic harmonizing taste and an excellent visual property (2). Although Hangwa is served during traditional occasions such as wedding ceremonies, ancestral ritual formalities, and customary parties, it is far from the current dietary life with a growing demand for easily prepared foods due to the westernization of dietary life, the simplification of ceremonies and the increase of female workers (3).

To address these concerns, numerous scientific studies and governmental support have been actively implemented since the mid-1990s to extend production and consumption of traditional foods, including Hangwa; therefore, the Hangwa market has grown, leading to 43.8% support by the Ministry of Agriculture, Forestry and Fishery (4). Demand for Hangwa has gradually in-

creased as a food for ceremonies and favorite food of persons preferring traditional foods, and has become popular as presents and for import (5). Because the demand for Hangwa given as gifts accounted for 60% of sales, its image needed shifting to include its consumption (4). In addition, the improvement of standard of living places more emphasis on favorite foods such as Hangwa. For consumers to buy Hangwa more easily, automation and mechanization of the manufacturing process, new packaging materials, storage methods to increase its storage duration and development of various types of products are necessary (6).

Also, in a diet with rice, a healthy staple food, Hangwa consisting of mainly cereals needs to be globalized and approached easily in daily life (7). Considering an international well-being trend, the development of fortified Hangwa will respond to the demand for healthy well-being products in terms of health function (8). In particular, because the function of rice snacks meets the desire of consumers, many efforts are made to produce Hangwa with various healthy functions by adding ginseng, green tea, laver and oriental herbs (9).

Previous studies on Hangwa investigated its quality characteristics according to additives (10), improvement

[†]Corresponding author. E-mail: malee@kfri.re.kr
Phone: +82-31-780-9302, Fax: +82-31-709-9876

of storage and sanitation as an experimental study (11), measures for commercialization (5,8,12) and recognition, preference and consumption (8,13-17). Through these studies, a need for suggesting the managerial implications towards the Hangwa industry was recognized. Also, analysis of consumer perception on importance and performance of Hangwa attributes could provide fundamental information for marketing strategy.

Therefore, the purpose of this study was to analyze consumers' consumption patterns and perception of Hangwa, and which consumption has been extended due to the current increase of interest in traditional foods perceived by consumers.

MATERIALS AND METHODS

Materials and study period

To investigate purchasing consumers' consumption patterns and perception on attributes of Hangwa, a simple random sampling was conducted using an online questionnaire survey program among these consumers from October 8~23, 2009 in Seoul and Gyeonggi. 92.4% (231/250) of consumers responded to the questionnaires sent by e-mail.

Methods

Questionnaire survey was conducted to analyze consumers' consumption patterns and perception of attributes of Hangwa; therefore, questions were developed based on the results of in-depth individual interviews performed by selecting 18 operators of manufacturing companies and producers of Hangwa from around the nation and the results from previous studies (8,16,17). The in-depth interview was an unstructured direct method collecting data on market trends, marketing activities to consumers, and intentions, beliefs and attitudes of Hangwa manufacturing companies. Results reflecting the opinions of consumers on Hangwa were selected to generate a five-part questionnaire.

The first part examined the perception of Hangwa with questions related to attitudes and loyalty towards Hangwa brands. The second part investigated frequency of purchasing Hangwa for a year, the average cost per purchase, the purpose of purchasing it, the age of a receiver if it was bought as a present, the reason, place, and preference for buying Hangwa to investigate purchasing behaviors. The third part consisted of 17 questions on products, circulation, advertisement and price to determine importance and performance of attributes of Hangwa. The final part asked general characteristics of the participants such as gender, age, educational background, income and job type. The questions were answered using

the Likert scale (7 points: 1-strongly disagree, 7-strongly agree). The developed questionnaire was sent to consumers by e-mail, and the collected data, descriptive statistics, paired samples t-test and importance-performance analyses were performed by using SPSS WIN 17.0.

RESULTS AND DISCUSSION

Personal characteristics of subjects

Frequency analysis on general characteristics of consumers was conducted on 124 males and 106 females (Table 1). 33.8% of the polled consumers were between 30 and 40 years old, followed by less than 20 (24.4%) and 20 to 30 years old (23.8%). Consumer educational backgrounds were graduation from graduate school (28.6%), undergraduate college (23.8%), and graduation of high school or less and their job types were professional (23.4%), office manager or employee (22.9%), and high school student (21.6%). Most of the subjects (39.8%) earned less than one million won a month, followed by two to three (18.6%) and three to four million won (18.2%).

Consumption patterns of Hangwa

Consumption behaviors of Hangwa: A frequency analysis was conducted to analyze the consumption behaviors of Hangwa, such as the frequency of purchasing Hangwa for a year, the average cost for a one-time purchase and the purpose for item bought, the age of the receiver if bought and given as a present, and the reason, place, and preference for specific type of Hangwa bought. According to the results (Table 2), most consumers bought Hangwa once or twice, 26.8% and 18.6%, respectively, paying an average cost of ten to thirty thousand or thirty to fifty thousand won, 20.3% and 14.3%, respectively. Hangwa was purchased most frequently as a 'present' (39.8%) and most of these recipients were 50 to 59 years old (15.2%). Additionally, the most popular reasons for buying Hangwa were for its traditional image (33.3%) and taste (22.5%), and mainly purchased at a discount (26.0%) or department store (23.8%) (Table 2).

Information on Hangwa was obtained from exhibits in stores (50.2%), advertisement from workers in stores (17.7%), acquaintances (16.0%) and the mass media such as TV and newspaper (15.6%) (Table 3).

According to previous studies, Hangwa was commonly purchased at a discount store (35.7%) or a department store (22.4%) (17), and the average cost was thirty to fifty thousand and ten to thirty thousand won (26.3%) and (25.2%), respectively, per purchase (15). Therefore, our study showed similar consumption patterns to pre-

Table 1. General characteristics of subjects

	Items	No.	%
Gender	Male	124	53.7
	Female	106	45.9
	No response	1	0.4
	Total	231	100.0
Age	Less than 20	56	24.2
	20 to less than 30	55	23.8
	30 to less than 40	78	33.8
	40 to less than 50	23	10.0
	50 or more than 50	18	7.8
	No response	1	0.4
	Total	231	100.0
Educational background	Less than graduation high school	50	21.6
	Graduation of high school	36	15.6
	Graduation of junior college	24	10.4
	Graduation of college	55	23.8
	Graduation of graduate school	66	28.6
	Total	231	100.0
Job	High school student	50	21.6
	College student	40	17.3
	Self-employed	8	3.5
	Office worker · manager	53	22.9
	Professional	54	23.4
	Production worker	1	0.4
	Housewife	9	3.9
	Other	15	6.5
	No response	1	0.4
	Total	231	100.0
Monthly income	Less than 1 million won	92	39.8
	1 million to less than 2 million	30	13.0
	2 million to less than 3 million	43	18.6
	3 million to less than 4 million	42	18.2
	4 million or more than 4 million	24	10.4
	Total	231	100.0

vious studies.

Demand for Hangwa: As measures to promote the consumption of Hangwa, 49.4% of participants answered 'development and management of Hangwa brands' and 43.3% and 26.4% pointed out 'a continuous advertisement' and 'discount', respectively (Table 4). For development of ideal Hangwa products, many subjects wanted 'Hangwa like a cracker' (56.3%), a 'well-being organic Hangwa' (38.5%) or 'customized Hangwa' (38.1%) (Table 5). Yoon and Kim showed that improvement in price and variations of Hangwa were needed (16). Developments for Hangwa products, brands, and discounts are necessary needs.

Perception of Hangwa

Recognition of Hangwa: Experiences of purchasing Hangwa, recognition of its brands and attitudes towards the product were examined (Table 6). Although 61.0% of the participants had bought Hangwa, many (87.4%) did not know its brands. Using a 7-point Likert scale,

consumers generally had a positive attitude (5.29) towards Hangwa compared to the ordinary level (1: strongly disagree, 4: moderate, 7: strongly agree). The subjects showed more than ordinary satisfaction towards Hangwa and responded with 'intention of buying Hangwa again' and 'recommending it to others'. Choi and Cho suggested that brands of Hangwa influenced the purchase intentions; therefore, brand power of Hangwa must be better marked (17).

Importance-performance analysis on attributes of Hangwa: When importance of factors considered in selecting Hangwa were assessed (Table 7), 'a sanitary process' (6.35) was thought to be the most important, followed by 'taste of Hangwa' (6.34), 'a rigorous quality mark including manufacture date' (6.18), and 'a wide range of price' (5.90). According to assessment on performance of the factors, 'taste of Hangwa' (5.01) was evaluated to be the highest and 'a sanitary process' (4.88), 'color of Hangwa' (4.79) and 'natural food addi-

Table 2. Consumption patterns of Hangwa

	Items	No.	%
Frequency of buying Hangwa for a year	Once	62	26.8
	Twice	43	18.6
	Three times	11	4.8
	Four or more times	22	9.5
	No response	93	40.3
	Total	231	100.0
Average cost for buying Hangwa per one time	Less than 10,000 won	30	13.0
	10,000~less than 30,000	47	20.3
	30,000~less than 50,000	33	14.3
	50,000~less than 100,000	25	10.8
	100,000~less than 200,000	3	1.3
	200,000~more than 200,000	0	0.0
	No response	93	40.3
Total	231	100.0	
Purpose of buying Hangwa ¹⁾	To eat directly	41	17.7
	For present	92	39.8
	For ancestral rite	51	22.1
	Other	3	1.3
Age of a receiver if Hangwa was bought for present	10~19 years	0	0.0
	20~29 years	1	0.4
	30~39 years	9	3.9
	40~49 years	27	11.7
	50~59 years	35	15.2
	60~69 years	21	9.1
	70 and more than 70 years	5	2.2
	No response	133	57.6
Total	231	100.0	
Reason of buying Hangwa ¹⁾	Taste	52	22.5
	Quality	7	3.0
	Traditional image	77	33.3
	Image as a high-quality product	33	14.3
	Appropriate price	12	5.2
	Recommendation of others	2	0.9
	Health	14	6.1
	Package	6	2.6
	Curiosity	1	0.4
	Preference of a receiver	34	14.7
	Other	9	3.9
Place of buying Hangwa	Department store	55	23.8
	Discount store	60	26.0
	Internet	6	2.6
	Manufacturing factory (visit or phone order)	6	2.6
	Home shopping	1	0.4
	Food service (ex. rice cake cafe)	2	0.9
	Other	9	3.9
	No response	92	39.8
Total	231	100.0	

¹⁾Multiple response.

tives' (green tea, pine needle powder, etc.) (4.75) were found to be satisfactory.

When importance and performance of the attributes were evaluated, performance was assessed to be lower than importance for all attributes, so there was a clear difference in recognition of choice of Hangwa.

According to importance-performance analysis on rec-

ognition of Hangwa (Figure 1), the attributes in the first quadrant with a high importance and a high performance were 'a sanitary process', 'a rigorous quality mark such as manufacture date' and 'taste of Hangwa' which were related with quality of products. Consumers recognized the importance of these attributes highly and evaluated that they were managed well. In addition, the attributes

Table 3. Sources of information on Hangwa

Items ¹⁾	No.	%
Exhibits in stores	116	50.2
Mass media such as TV and newspapers	36	15.6
Acquaintances	37	16.0
Advertisement through mass media	15	6.5
Promotion of workers in stores	41	17.7
Internet	17	7.4
Advertisement of distributors	12	5.2
Other	23	10.0

¹⁾Multiple response.

Table 4. Measures to promote the consumption of Hangwa

Items ¹⁾	No.	%
Continuous promotion	100	43.3
Discount	61	26.4
Development of package	28	12.1
Diversification of channels for distribution	56	24.2
Diversification of standards of products	41	17.7
Development and management of Hangwa brands	114	49.4
Development of new products	57	24.7
Selection of appropriate target consumers	50	21.6
Other	16	6.9

¹⁾Multiple response.

Table 5. Expected Hangwa products

Items ¹⁾	No.	%
Hangwa with various flavor	68	29.4
Well-being organic Hangwa	89	38.5
Healthy Hangwa	54	23.4
Hangwa as a substitute of a meal	66	28.6
Cooking with Hangwa	32	13.9
Customized Hangwa	88	38.1
Hangwa like a cracker	130	56.3
Other	10	4.3

¹⁾Multiple response.

with a high importance but a low performance were ‘popularization through advertisement’, ‘promotion through mass media’, ‘conversion of thought on traditional foods’, ‘a reasonable price’ and ‘a wide range of price’ and they were associated with advertisement and price. These attributes were considered to be important

Table 6. Recognition of Hangwa

	Items	No.	%
Recogniton of Hangwa brand	I know.	21	9.1
	I don't know.	202	87.4
	No response	8	3.5
	Total	231	100.0
Attitude and loyalty to Hangwa ¹⁾	I am favorable to Hangwa.	5.29 ± 1.30	
	I satisfy Hangwa which I purchased.	4.55 ± 1.18	
	I will buy Hangwa next time.	4.53 ± 1.40	
	I will recommend Hangwa to others.	4.36 ± 1.37	

¹⁾Mean ± SD, 7-point likert scale (1: strongly disagree, 7: strongly agree).

by consumers, and therefore, their performance needs improvement. The attributes with a low importance but a high performance were ‘natural food additives’, ‘expiration date’, ‘color of Hangwa’, ‘various types of Hangwa’, ‘package material’ and ‘package color’, and those with a low importance and a low performance were ‘various channels for purchasing it’, ‘a number of stores of a manufacturer’ and ‘package size (standard)’ which were related with the place of purchasing and method of packaging Hangwa.

Therefore, Hangwa manufactures need to diversify products, extend the expiration date based on technologies, and modernize package design to promote its consumption. In terms of price, Hangwa should become more accessible by lowering the price barrier for consumers who are sensitive to price. Measures to share more information on Hangwa are also necessary by extending the meaning of circulation to include communication of information and increase off-line stores whom can sell Hangwa, such as rice cake cafes where dine-in is available. Last but not least, as B2C (Business to Consumer) advertisement strategies relationship marketing through mobile messages, revitalization of brands through product innovation and strengthening of competitive sources and extension of consumption of the young through event strategies are necessary. In terms of B2B (Business to Business), suggestion for a supply to institutional food services to improve the use of Hangwa brands, advertisement through welfare programs of companies and management of brand resources through association of producers are needed.

The limitation of this study was the sample consisting of consumers in Seoul and Gyeonggi. Therefore, the generalizations of the results may be limited to the consumers in these particular regions.

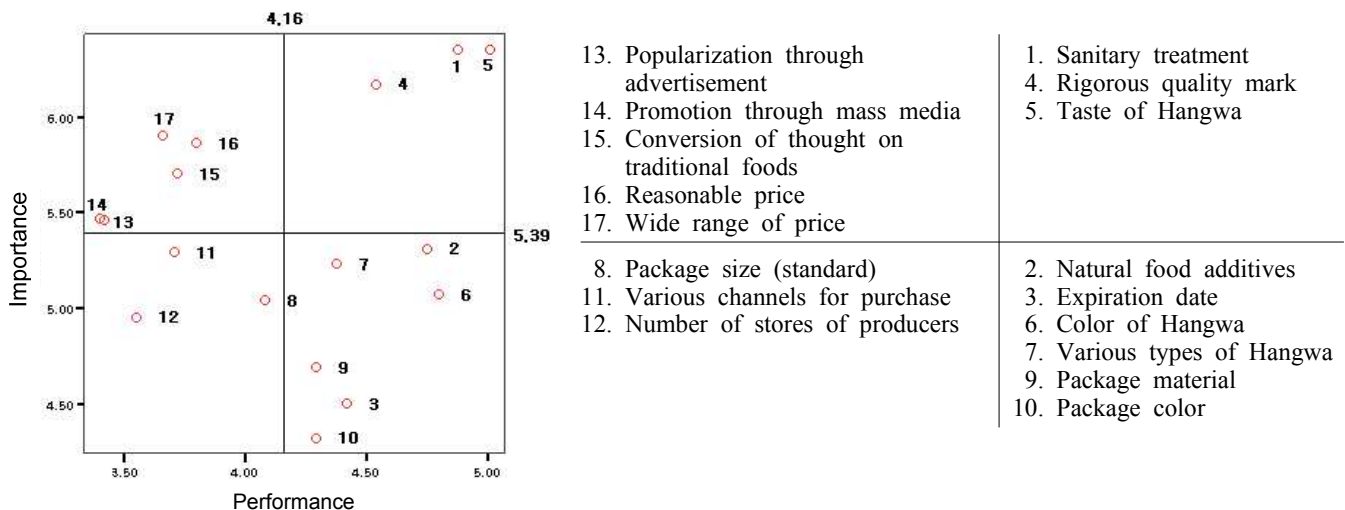
Results of this study provide a foundation for several directions in future research. First, older consumers' consumption patterns and perception need further exploration. Second, inclusions of additional variables as well as operators of Hangwa industries are needed. Finally, the dif-

Table 7. Importance and performance of factors in selecting Hangwa

	Factors	Importance ¹⁾	Performance ¹⁾	t-value
Quality	Sanitary process	6.35 ± 1.00	4.88 ± 1.20	15.373 ^{***}
	Natural food additives (green tea, pine needle powder, etc.)	5.31 ± 1.21	4.75 ± 1.10	5.760 ^{***}
	Long expiration date	4.50 ± 1.32	4.42 ± 1.08	0.800
	Rigorous quality mark such as manufacture date	6.17 ± 1.10	4.54 ± 1.11	16.194 ^{***}
	Taste of Hangwa	6.35 ± 0.88	5.01 ± 1.25	14.845 ^{***}
	Color of Hangwa	5.07 ± 1.31	4.80 ± 1.14	2.715 ^{**}
	Various types of Hangwa	5.23 ± 1.16	4.38 ± 1.27	8.311 ^{***}
Package	Diversity of package size (standard)	5.04 ± 1.27	4.08 ± 1.10	8.715 ^{***}
	Package material	4.69 ± 1.31	4.29 ± 1.08	3.745 ^{***}
	Package color	4.32 ± 1.36	4.29 ± 1.00	0.280
Place	Diversity of channels for purchase	5.29 ± 1.20	3.71 ± 1.32	12.929 ^{***}
	Sufficient number of stores of manufactures	4.95 ± 1.25	3.55 ± 1.30	11.201 ^{***}
Promotion	Popularization through advertisement	5.46 ± 1.18	3.42 ± 1.38	16.363 ^{***}
	Promotion through mass media	5.47 ± 1.17	3.40 ± 1.41	16.070 ^{***}
	Conversion of thought on traditional foods	5.70 ± 1.18	3.72 ± 1.44	15.543 ^{***}
Price	Reasonal price	5.86 ± 1.07	3.80 ± 1.46	16.626 ^{***}
	Wide range of price	5.90 ± 1.04	3.66 ± 1.39	17.918 ^{***}

¹⁾Mean ± SD, 7-point likert scale (1: strongly disagree, 7: strongly agree).

p<0.01, *p<0.001

**Fig. 1.** Importance and performance by attributes of Hangwa.

ferences in demographic factors communicate a need for further investigation.

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