

서울지역의 라면 소비실태 조사

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Survey on Consumption Pattern of Ramyon in Seoul Area

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Abstract

The consumption pattern of Ramyon (a deep-fried instant noodle) in Seoul area was surveyed in 1988. Of 2,432 consumers, 801 consumers were considered to be non-eating. Based on Ramyon eating consumers, most frequent consumption of Ramyon was 1-2 times per week. The frequency of consumption decreased in the order of middle school student, high school student, university student, office worker and housewife. Most consumers eat Ramyon because of convenience for meal substitution. Consumers considered that the taste of soup was more important than the texture of noodle. The most desirable texture and taste of soup were chewy and spicy, respectively. The consumption pattern of Ramyon between sex and among occupation groups were different. However, no significant differences were observed between sex and among occupation groups as far as quality factors were considered.

Introduction

Ramyon, a deep-fried instant noodle, was introduced in Korea in 1963 by Sam Yang Foods Co. Among five Ramyon manufactures Sam Yang Foods Co. and Nong Shim Co. occupied 78.3% of the market share of Ramyon in 1986¹⁾.

The consumption of Ramyon has been steadily increased as shown in Fig. 1. The consumption per capita per year was 6.2kg in 1981, 8.2kg in 1983, 9.3kg in 1986 and 9.9kg in 1987¹⁾.

Ramyon in Korea is classified into common Ramyon (100 won), high quality Ramyon (200 won) and cup Ramyon. For common Ramyon an equal blend of the first and second class of all-purpose flour is used, but for high quality Ramyon all-purpose flour (about 93%) and strong flour (about 7%) are utilized²⁾. Considerable portion of strong

flour is used for cup Ramyon. Of the total amount of flour used for the production of cup Ramyon, 32.5% was strong flour; remainder being all-purpose flour²⁾.

Based on the total amount of flour used for Ramyon production in 1987, the percentages used for common, high quality and cup Ramyon were 71.1, 24.1 and 4.9%, respectively²⁾.

Despite the fact that the consumption of Ramyon per capita per year consisted of 25.8% of flour consumption per capita in 1987²⁾, little information is available for the consumption pattern of Ramyon.

The purpose of this survey was to analyze the consumption pattern of Ramyon and quality factor(s) involved in Ramyon. Since Seoul is the major place of flour utilization, the survey was conducted in this area.

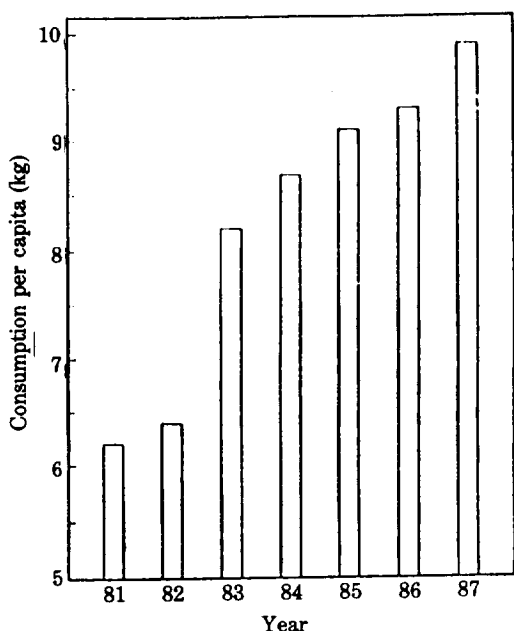


Fig. 1. Trend of Ramyon consumption in Korea

Survey Method and Data Analysis

Survey method

The consumption pattern and quality factor(s) of Ramyon were surveyed by questionnaire. The questionnaire included frequency of consumption, reasons for eating, consumption time and place, preference of Ramyon products and quality factors.

A total of 2,800 consumers in Seoul area were random-surveyed. Recovery of questionnaire was 91.07%. Among the recovered, 118 questionnaires were discarded because of incomplete answers.

The number of consumers analyzed based on occupation is presented in Table 1. The age of the consumers ranged from 13 to 45 years old.

The survey was conducted from January to March, 1988.

Data analysis

The data were analyzed to give percent frequency among occupation groups.

Consumption patterns of Ramyon between sex or among occupation groups were analyzed by analysis of variance, with MV-20000 Model 1 com-

Table 1. The number of consumers surveyed

Occupation	Male		Female		Total	
	n	%	n	%	n	%
Middle School Student(MSS)	221	22.3	255	17.7	476	19.6
High School Student(HSS)	245	24.7	254	17.6	499	20.5
University Student(US)	308	31.0	393	27.3	701	28.8
Office Worker(OW)	218	22.0	284	19.8	502	20.6
Housewife(HW)	-	-	254	17.6	254	10.5
Total	992	40.8	1440	59.2	2432	100.0

puter using SPSS-X21 program.

Results

Consumption pattern

1) Frequency of consumption

The percent frequency of Ramyon consumption is given in Table 2. The frequency was different between sex within the group and between groups. Based on the average value of each group, the highest frequency of consumption by student groups was "1-2 times per week" followed by "3-4 times per week". It should be noted that the frequency of consumption by OW and HW groups was considerably lower than that by student groups.

Those who consumed Ramyon "Almost none" and "1-2 times per month" were considered to be non-eating. Number of non-eating consumers was 801 (Table 3), which occupied 32.9% of the total consumers surveyed (Table 1). Based on the total consumers surveyed, the percentages of non-eating consumers were 20-30% range for student groups and over 40% for OW and HW groups (Table 3).

The reasons for not-eating Ramyon are listed in Table 3.

The non-eating consumers were excluded from further analyses.

The main reason for eating Ramyon was convenience for meal substitution (73.1%) followed by good taste (18.0%)(Fig. 2). It is interesting to see that the portion of "Good taste" and "Convenience for meal" showed opposite trend each other. About

Table 2. Present frequency of Ramyon consumption

Frequency of consumption	MSS		HSS		US		OW		HW
	M	F	M	F	M	F	M	F	F
Almost none	3.6	2.4	5.3	3.9	4.9	6.6	14.2	13.4	25.2
1-2 times per month	17.2	19.2	18.0	23.2	15.9	23.4	39.4	30.6	35.4
1-2 times per week	48.0	52.9	43.3	48.4	36.7	50.4	26.1	40.5	26.8
3-4 times per week	20.8	21.6	25.3	20.1	29.2	18.3	11.5	13.0	7.9
5-6 times per week	10.4	3.9	8.2	4.3	13.3	1.3	8.7	2.5	4.7
n	221	255	245	254	308	393	218	284	254

Table 3. Present frequency of reasons for not eating Ramyon

Reason	MSS		HSS		US		OW		HW
	M	F	M	F	M	F	M	F	F
Poor nutritional quality	27.1	32.1	32.8	41.4	33.8	31.1	21.4	29.1	28.9
No chance to eat	29.2	25.0	29.3	22.9	20.0	23.5	33.3	39.3	19.1
Poor taste	16.7	16.1	15.5	17.1	24.6	23.5	14.5	14.5	23.7
Dislike noodles	18.8	17.9	15.5	11.4	15.4	14.3	24.8	13.7	22.4
Others	8.2	8.9	6.9	7.2	6.2	7.6	6.0	3.4	5.9
n	48	56	58	70	65	119	117	117	152
(% of total n)	(21.7)	(22.0)	(23.7)	(27.5)	(21.1)	(30.2)	(53.6)	(41.2)	(59.8)

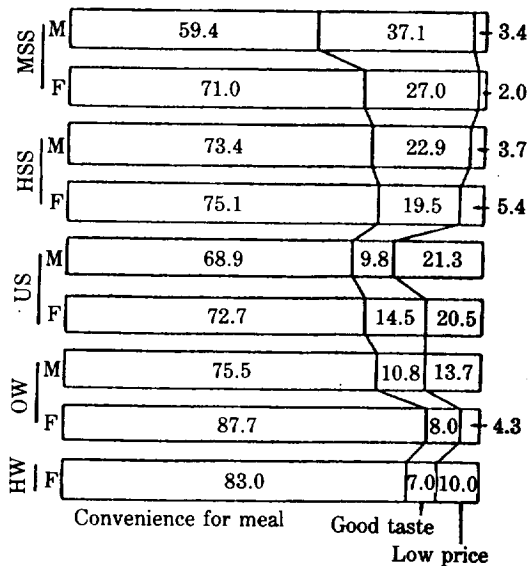


Fig. 2. Percent frequency of reasons for eating Ramyon

20% of the university students answered that they eat Ramyon of low price.

Among 1,631 Ramyon consumers, most eat Ramyon at lunch (53.3%) and between meals

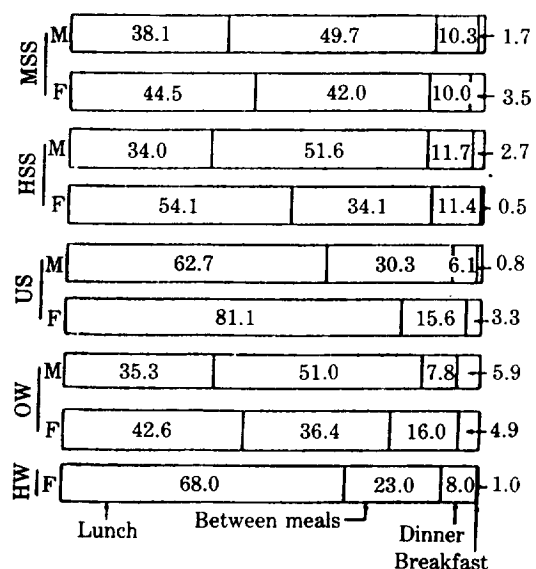


Fig. 3. Percent frequency on time for Ramyon consumption

(35.7%)(Fig. 3). About 9% consumed Ramyon as a dinner and only 2% as a breakfast.

The predominant place for Ramyon consumption was home (61.3%) followed by restaurant

Table 4. Percent frequency for preference on Ramyon product

Ramyon product	MSS		HSS		HSS		OW		HW	Average		
	M	F	M	F	M	F	M	F	F	M	F	Total
Specific product from a specific company	32.6	33.5	34.6	34.6	28.7	33.1	37.3	30.9	51.0	32.4	35.0	33.9
Any product from a specific company	25.7	36.5	13.8	21.1	12.7	13.1	14.7	15.4	26.0	16.5	21.6	19.4
Do not care	41.7	30.0	51.6	44.3	58.6	53.8	48.0	53.7	23.0	51.1	43.4	46.7
n	175	200	188	185	244	275	102	162	100	709	922	1,631

Table 5. Percent frequency for motive influencing selection of Ramyon

Motive	MSS		HSS		US		OW		HF	Average		
	M	F	M	F	M	F	M	F	F	M	W	Total
Company	29.1	25.0	24.5	21.1	27.0	22.2	35.3	28.4	40.0	28.1	25.6	26.7
Advertisement	46.3	62.5	51.6	61.6	41.0	61.5	49.0	56.8	45.0	46.3	59.1	53.5
Design of package	2.3	3.5	5.9	2.7	3.3	4.4	3.9	3.1	2.0	3.8	3.4	3.6
New product	20.0	7.0	15.4	10.3	20.9	9.8	9.8	9.3	12.0	17.6	9.4	13.0
Other	2.3	2.0	2.7	4.3	7.8	2.2	2.0	2.5	1.0	4.2	2.5	3.2

Total number for each group is the same as in Table 4.

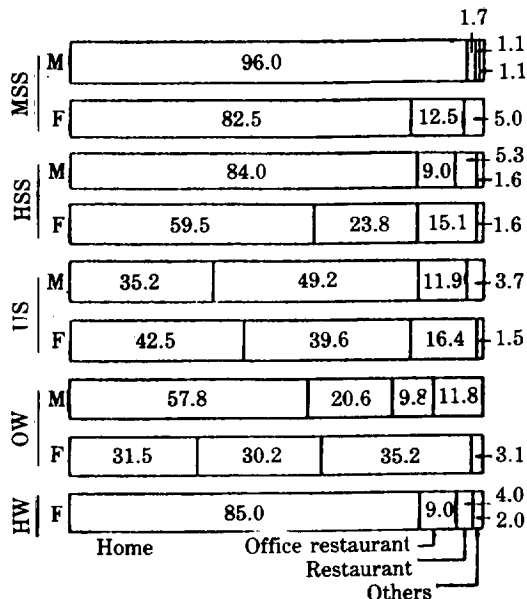


Fig. 4. Percent frequency on place for Ramyon consumption

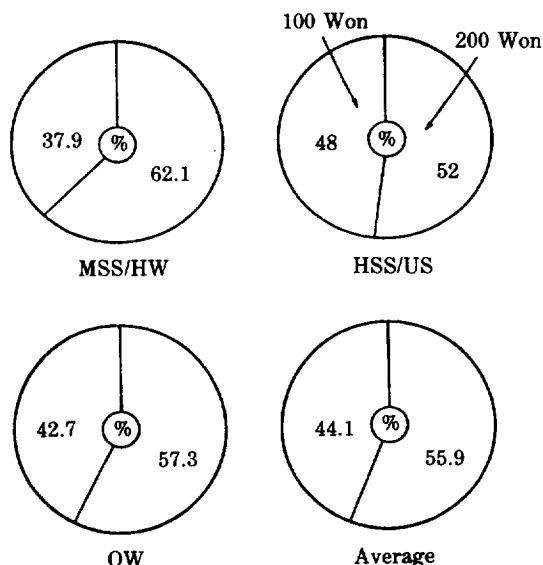


Fig. 5. Preference of Ramyon by cost

Table 6. Percent frequency for consumption of Ramyon by kind

Ramyon by kind	MSS		HSS		US		OW		HW	Average		
	M	F	M	F	M	F	M	F	F	M	F	Total
100 won	26.3	28.5	39.4	32.4	48.0	36.0	43.1	29.0	39.0	39.6	32.8	35.7
200 won	30.3	30.3	22.9	24.3	23.4	27.6	30.4	28.4	39.0	26.0	28.9	27.6
Udon-type	9.7	12.5	13.3	13.5	6.1	9.5	8.8	8.0	8.0	9.3	10.5	10.0
Cup	6.3	12.5	3.2	10.8	2.9	8.7	2.0	17.9	6.0	3.7	11.3	8.0
Anything	27.4	16.5	21.3	18.9	19.7	18.2	15.7	16.7	8.0	21.4	16.6	18.7

Total number for each group is the same as in Table 4.

Table 7. F probability between sex for consumption pattern of Ramyon

	MSS	HSS	US	OW
Consumption				
Frequency	0.1494	0.0639	0.0000	0.9619
Time	0.0879	0.0000	0.0000	0.1192
Place	0.0002	0.0000	0.0116	0.1285
Selection of product				
By company	0.1407	0.4347	0.2459	0.2927
By kind	0.2042	0.3324	0.0927	0.0093
By cost	0.5939	0.1619	0.1638	0.0454
Reason for eating Ramyon	0.0822	0.9932	0.1368	0.0036
Motive for selecting Ramyon	0.0385	0.6362	0.0008	0.5951

(36.3), as shown in Fig. 4.

2) Preference on Ramyon product

Among 1,631 consumers, more than half (53.5%) preferred product(s) from a specific company, but remainder did not care about the brand or company (Table 4).

The advertisement had a strong influence on the selection of Ramyon product (Table 5). Other factors influencing selection of Ramyon were company and new product.

The consumption of Ramyon by kind was as follows: 35.7% for 100 won Ramyon, 27.6% for 200 won Ramyon, 10% for Udon-type Ramyon and 8% for cup Ramyon (Table 6). The price of Udon-type Ramyon is 200 won. Therefore, the consumption of 200 won Ramyon was slightly higher than that of 100 won Ramyon.

When the preference of 100 won and 200 won Ramyon was compared, the latter was more preferred (Fig. 5).

Table 8. F probability and Duncan's multiple range test among occupation groups for consumption pattern of Ramyon

	Male		Female	
	F probability	Group	F probability	Group
Consumption				
Frequency	0.0000	<u>1234</u>	0.0000	<u>12345</u>
Time	0.0000	<u>1234</u>	0.0000	<u>12435</u>
Place	0.0000	<u>1243</u>	0.0000	<u>15234</u>
Selection of product				
By company	0.0822	N.S.	0.0000	<u>12345</u>
By kind	0.0010	<u>1423</u>	0.0115	<u>12345</u>
By cost	0.0260	<u>1234</u>	0.6309	N.S.
Reason for eating Ramyon	0.0296	<u>3142</u>	0.0028	<u>12354</u>
Motive for selecting Ramyon	0.0054	<u>4123</u>	0.1600	N.S.

The numbers 1,2,3,4 and 5 denote MSS, HSS, US, OW and HW, respectively. The underlined pairs of groups are significantly different with another at the 0.050 level.

3) Statistical analysis

The consumption pattern of Ramyon between sex in each occupation group was statistically analyzed and the results are tabulated in Table 7. No consistent trend among groups was observed.

Duncan's multiple range test among occupation groups for consumption pattern of Ramyon is presented in Table 8. The consumption patterns for male and female among groups were considerably different.

Quality factor of Ramyon

Among 1,631 consumers, 46.8% considered that texture of noodle and taste of soup are both important quality factors of Ramyon (Fig. 6).

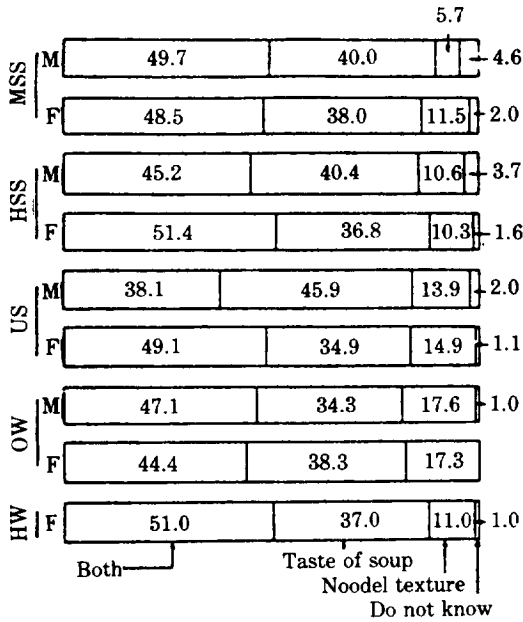


Fig. 6. Percent frequency on quality factor of Ramyon

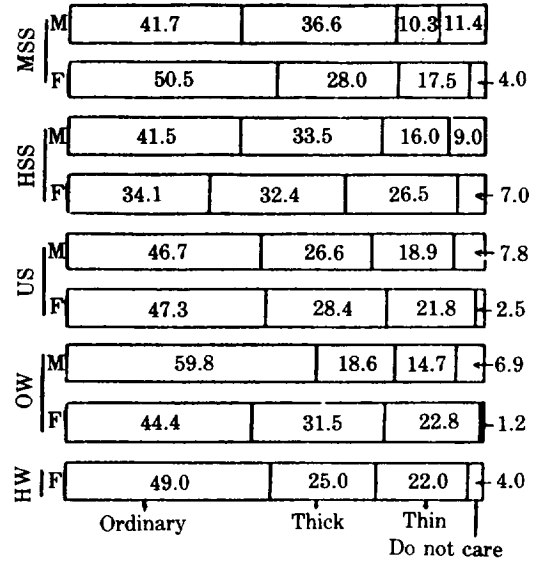


Fig. 7. Percent preference on thickness of noodle strand

Table 9. Percent frequency of most favorable texture of Ramyon

	MSS		HSS		US		OW		HW	Average		Total
	M	F	M	F	M	F	M	F	F	M	F	
Chewy	57.1	80.0	66.0	68.1	67.6	66.5	51.0	67.3	66.0	62.2	69.8	66.5
Hard	28.6	12.5	29.8	20.0	21.7	17.8	20.6	16.7	12.0	25.4	16.3	20.2
Soft & tender	11.4	6.0	3.7	10.2	8.6	14.6	21.5	11.7	19.0	9.9	11.8	11.1
Swollen	1.7	1.0	0.0	1.1	1.2	1.1	2.9	1.9	1.0	1.3	1.2	1.2
Slightly mushy	1.1	0.0	0.5	0.0	0.8	0.0	3.9	1.2	1.0	0.0	0.5	0.3
Mushy	0.0	0.5	0.0	0.5	0.0	0.0	0.0	1.2	1.0	1.3	0.3	0.7
n	175	200	188	185	244	275	102	162	100	709	922	1,631

Table 10. Percent frequency of most undesirable texture of Ramyon

	MSS		HSS		US		OW		HW	Average		Total
	M	F	M	F	M	F	M	F	F	M	F	
Swollen	43.4	45.0	49.5	57.8	45.9	50.5	46.1	43.8	36.0	46.3	48.0	47.3
Mushy	33.1	29.0	32.4	28.1	30.7	32.0	29.4	40.1	36.0	31.6	32.4	32.0
Hard	9.1	13.0	6.9	7.6	8.2	11.3	12.7	9.3	14.0	8.7	10.8	9.9
Slightly mushy	9.7	12.5	8.0	6.5	10.7	4.7	7.8	3.7	9.0	9.3	7.0	8.1
Chewy	2.3	0.5	0.5	0.0	2.5	1.1	2.0	2.5	2.0	1.8	1.1	1.4
Soft & tender	2.3	0.0	2.6	0.0	2.0	0.4	2.0	0.6	3.0	2.3	0.5	1.3
n	175	200	188	185	244	275	102	162	100	709	922	1,631

Table 11. Percent frequency of favorable taste of soup for Ramyon

	MSS		HSS		US		OW		HW	Average		
	M	F	M	F	M	F	M	F	F	M	F	Total
Spicy	77.7	72.5	74.5	71.4	76.2	76.4	72.5	69.1	65.0	75.6	72.0	73.6
Meat extract	14.9	16.0	14.8	11.9	11.5	8.4	14.7	12.3	21.0	13.6	12.8	13.1
Plain	5.1	9.0	8.5	16.2	11.5	14.9	11.8	17.3	14.0	9.2	14.2	12.0
Greasy	0.0	1.5	1.1	0.5	0.4	0.4	1.0	1.2	0.0	0.6	0.8	0.7
Salty	2.3	1.0	1.1	0.0	0.4	0.0	0.0	0.0	0.0	1.0	0.2	0.6
n	175	200	188	185	244	275	102	162	100	709	922	1,631

Table 12. Percent frequency of most undesirable taste of soup for Ramyon

	MSS		US		HSS		OW		HW	Average		
	M	F	M	F	M	F	M	F	F	M	F	Total
Greasy	58.3	69.5	59.0	74.1	52.9	67.3	56.9	60.5	63.0	56.4	67.5	62.7
Salty	28.0	22.0	31.9	21.6	39.8	29.8	38.2	37.3	35.0	34.6	28.4	31.1
Meat extract	5.7	4.5	4.3	2.2	2.0	1.8	1.9	0.0	1.0	3.5	2.1	2.7
Plain	5.7	1.5	2.7	1.1	3.7	1.1	2.0	1.9	0.0	3.7	1.2	2.3
Picy	2.3	2.5	2.1	1.1	1.6	0.0	1.0	0.0	1.0	1.8	0.9	1.3
n	175	200	188	185	244	275	102	162	100	709	922	1,631

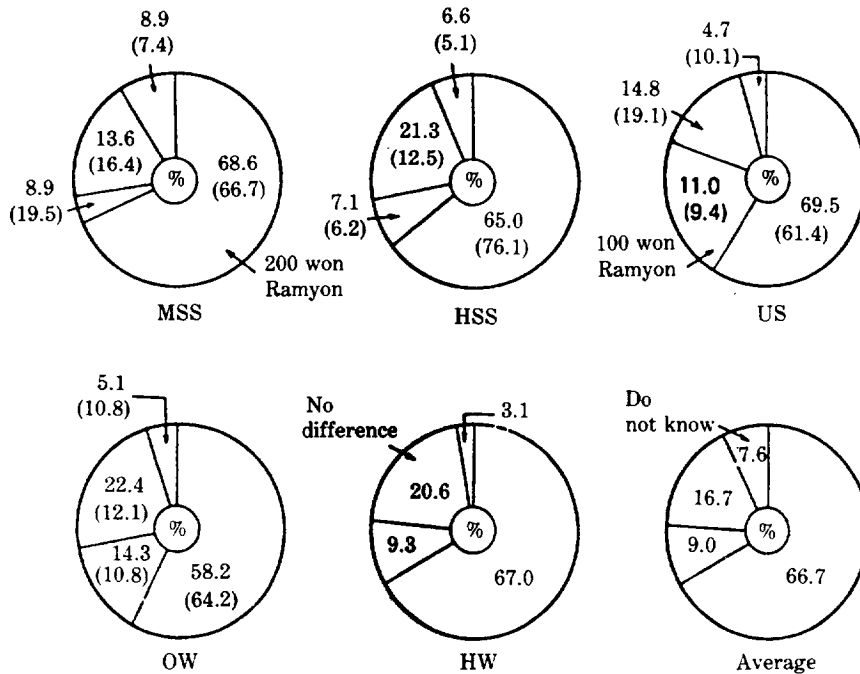


Fig. 8. Comparison of 100 won and 200 won Ramyons in terms of texture of noodle by sex (Numbers in parentheses are response from female)

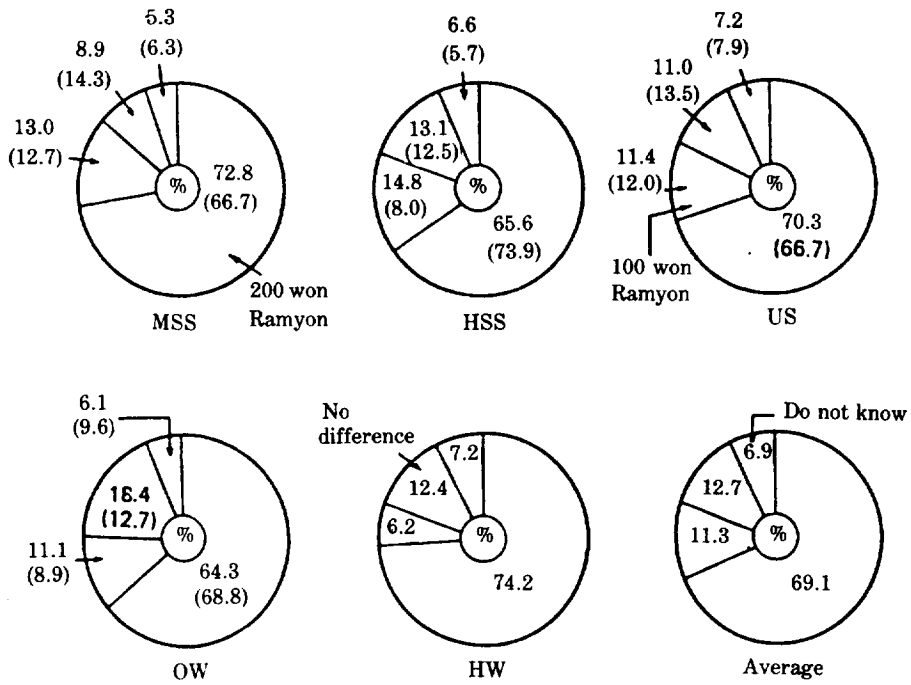


Fig. 9. Comparison of 100 won and 200 won Ramyons in terms of taste of soup by sex (Numbers in parentheses are response from female)

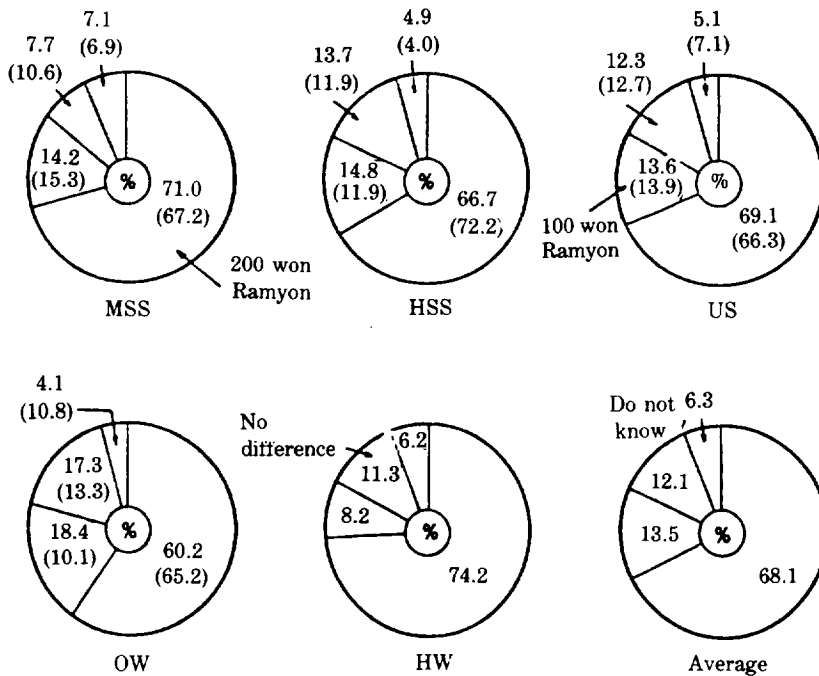


Fig. 10. Comparison of 100 won and 200 won Ramyons in terms of overall eating quality by sex (Numbers in parentheses are response from female)

Table 13. F probability between sex for quality of Ramyon

	MSS	HSS	US	OW
Quality factor	0.0939	0.7558	0.2115	0.6578
Texture				
Thickness	0.9183	0.4319	0.2031	0.1030
Undesirable	0.2241	0.8754	0.2410	0.6410
Desirable	0.0000	0.1215	0.4462	0.0718
Taste of soup				
Desirable	0.6193	0.5254	0.3295	0.8422
Undesirable	0.5313	0.0997	0.3905	0.7800
100/200 won Ramyon				
Texture	0.5398	0.0530	0.0162	0.5631
Taste of soup	0.7116	0.9564	0.5765	0.6134
Overall eating quality	0.7193	0.4962	0.4818	0.0780

Table 14. F probability among occupation groups for quality Ramyon

	Male	Female
Quality factor	0.0038	0.2125
Texture		
Thickness	0.5127	0.4899
Undersirable	0.8812	0.2917
Desirable	0.2285	0.1100
Taste of Soup		
Desirable	0.6883	0.0170
Undesirable	0.6460	0.1010
100/200 won Ramyon		
Texture	0.2425	0.0771
Taste of soup	0.6605	0.4920
Overall eating quality	0.9725	0.1062

However, the taste of soup was more important than the texture of noodle.

In terms of the thickness of the noodle strand, consumers preferred ordinary one (45.4%) followed by thick (29.5%) and thin (19.1%) one (Fig. 7).

The most favorable texture of Ramyon was "chewy" and "hard" in all groups except HW, who preferred "chewy" and "soft & tender" texture (Table 9). The most undesirable texture of Ramyon was "swollen" and "mushy" texture (Table 10). About 10% answered that "hard" texture was undesirable.

The most favorable taste of soup was "spicy" followed by "meat extract" (Table 11). On the other hand, the most undesirable taste of soup was "greasy" and "salty", which was over 90% of the total response (Table 12).

In comparison of 100 won and 200 won Ramyons, consumers preferred the latter in terms of texture of noodle (Fig. 8), taste of soup (Fig. 9) and overall eating quality (Fig. 10).

In general, no significant differences were observed between sex (Table 13) and among occupation groups (Table 14) for the quality of Ramyon.

Summary

The consumer survey on consumption pattern

and quality factor(s) of Ramyon was conducted. Of 2,432 consumers, 801 consumers were considered to be non-eating. Non-eating consumers were excluded from further analyses.

1. Based on Ramyon eating consumers (a total of 1631), most frequent consumption of Ramyon was 1-2 times per week. However, the frequency of consumption decreased in the order of middle school student (MSS), high school student (HSS), university student (US), office worker (OW) and house wife (HW).

2. Most consumers eat Ramyon because of convenience for meal substitution (73.1%). They consume Ramyon at lunch (53.3%) and between meals (35.7%), at home (61.3%) or restaurant (36.4%).

3. Many consumers preferred a specific product from a specific company (33.9%), but most did not care about the brand or company (46.7%). Advertisement had a strong effect on the selection of Ramyon.

4. The consumption of Ramyon by kind was as follows: 100 won Ramyon (35.7%), 200 won Ramyon (27.6%), Udon-type Ramyon (10.0%) and cup Ramyon (8.0%).

5. Consumers considered that texture of noodle and taste of soup are both important quality factor of Ramyon. The taste of soup however was more important than the texture of noodle.

6. In terms of the texture of cooked noodle, the

most undesirable was swollen (48.4%) and mushy (31.4%) texture. The most desirable was chewy (66.5%) and hard (20.2%) texture.

7. The most desirable and undesirable taste of soup were spicy (73.6%) and greasy (60.5%) taste, respectively.

8. In comparison of 100 won and 200 won Ramyons, most consumers considered that the 200 won Ramyon was better in terms of the texture of noodle, taste of soup and overall eating quality.

9. The consumption pattern of Ramyon between sex and among occupation groups were different. However, no significant differences were observed between sex and among occupation groups as far as quality factors were concerned.

요 약

서울지역을 대상으로 라면의 소비실태를 설문지로 조

사하였다. 회수된 2,432명 중 801명은 라면을 거의 먹지 않았다. 라면의 소비 빈도는 일주일에 1-2회가 가장 높았고, 소비 빈도는 중학생, 고등학생, 대학생, 직장인, 가정주부의 순서로 감소하였다. 대부분의 소비자는 라면을 식사대용으로 소비하며, 국물맛이 면발보다 더욱 중요하다고 생각하였다. 가장 바람직한 면발의 텍스처는 쫄깃쫄깃한 것이었고, 국물맛은 매운맛을 선호하였다. 라면의 소비실태는 남녀별로 또한 직업별로 차이를 보였으나, 라면의 품질인자에 대하여는 차이를 보이지 않았다.

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