An Activation plan of Korea Kimchi distribution Industry in the Chinese Kimchi Market*

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Abstract

Purpose - To active the Korea kimchi distribution, this study aims to investigate the effect of Korea national image and kimchi image on kimchi purchase intention. this study suggest the strategies for kimchi export to China by examining how the Chinese perceptions of Korean kimchi.

Research design, data, and methodology - For this study, empirical analysis was conducted based on survey results. A questionnaire was distributed to a total of 400 Chinese consumers. Of these, 280 were collected and 278 were used for statistical processing, excluding 2 that were found to be unsuitable for analysis. This study was performed by the regression analysis using the spss24 statistical program.

Results - As a results, It was not significant that the Chinese consumers' familiarity on the Korea image will have a positive effect on their kimchi purchase intention. On the other hand, the kimchi/Korean food image of Chinese consumers' will increase their kimchi consumption experience.

Conclusions - The Chinese consumers' positive image on kimchi/Korean food in terms of the unique characteristics of kimchi, health aspects and preference of kimchi is positively influenced when they have higher image on Korea related to its national characteristics, and that of the higher image for Korea has a positive effect on kimchi purchase intention.

Keywords: Kimchi Industry, Kimchi Image, Chinese Consumers, National Image.

JEL Classifications: F10, L10, L60, M31, N70.

1. Introduction

Traditionally kimchi has a special status in Korea. Korean kimchi producers, however, are complaining of difficulties with the bureaucratic attitude of the Chinese government. In other words, the Chinese government has classified Korean kimchi as pickled vegetables to fundamentally block the import of Korean kimchi. Because Korean kimchi is a

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fermented food, and thus, contains high number of bacteria, it is virtually impossible for a kimchi product to pass the sanitary standards for sterilized pickled vegetables.

Kimchi is a the most representative of Korean foods. Yet, kimchi export to China has been lower than other foods due to strict sanitary standard of the Chinese government. Fortunately, the likelihood of Korean kimchi export to China has increased with the South Korea-China Free Trade Agreement(FTA) which took effect in 2015. According to this agreement, Korea and China has agreed to abolish tariff in phases over 20 years on more than 90% of major export-import products, including medical devices, electronic products, and kimchi. According to the South Korea-China FTA, it appears that low-cost kimchi and kimchi seasoning ingredients produced by China which holds superior labor advantages will enter the Korean market more briskly. As the Korea-China FTA went into effect, the tariff rate for Chinese kimchi immediately decrease by 2%, from 20% to 18%. Currently, Chinese kimchi is imported at about

500~600 KRW per 1kilogram. With the decreased tariff rate for Chinese kimchi, the increase of imported Chinese kimchi in the domestic market may relieve the burden of Korean consumers. However, considering that more than 200,000 tons of kimchi is imported per year and that more than 95% of highway rest areas and more than 90% of general restaurants and major cafeterias are using imported Chinese kimchi, the domestic kimchi industry Andalusian farmers will inevitably face more difficulties with the decreased tariff rate for Chinese kimchi(https://www.ceicdata.com/en/korea/trade-statistics).

As a result of the South Korea-China FTA, the Korean government's goal for popular kimchi export, which was aimed at $1,000,000, fell too short at $101,000 in 2015 and $297,000 in 2016 (as of October), while the import of Chinese kimchi in 2016, for which decreased tariff was applied, amounted to $98,000,000 which is 329 times the amount exported from Korea. In addition to its economic value, Korean kimchi has cultural and historical significance, which was why UNESCO registered the kimjang culture (making and sharing kimchi) as a world heritage in 2013 (http://www.kotra.or.kr/search). Despite various efforts of the Korean government to increase the international awareness of kimchi, the consumption of kimchi among Korean people is decreasing. Moreover, the import of Chinese kimchi has increased, while the export of Korean kimchi to China has been stalled(An, Cho, & Kim, 2014).

Therefore, this study is to establish strategies for kimchi export to China by examining how the Chinese perceptions of Korean kimchi are affecting their purchase of Korean kimchi and, so as to draw measures for the globalization of Korean kimchi. We aims to study as following. first, the current status of domestic kimchi industry as well as the kimchi industry of major export destination countries were analyzed, followed by an analysis on how Chinese consumer's perception on kimchi is affecting their kimchi purchase. Second, research model and hypothesis were set up for this study. Third, empirical analysis was conducted based on survey results. Finally, as a conclusion of this study, a few suggestions are made for revitalizing Korean kimchi export based on the study results.

2. Literature Review

2.1. Kimchi Import and Export Status of Korea

The kimchi export volume by weight has steadily decreased since 2010. Kimchi export volume in 2015 was 23,111 tons, a 6.6% decrease from the previous year. Kimchi export value also showed a 12.5% decrease from 84,033,000 USD in 2014 to 73,546,000 USD in 2015. However, kimchi import volume by weight and kimchi import value remained stable. Consequently, the trade balance for the past few years showed a gradual increase in deficit, suggesting that Korea has been importing more than exporting. The shrinking scale of Korean kimchi export can be attributed to the sharp decline in exports to Japan in recent years, and a downward trend in the average export unit price for four consecutive years with the current average export unit price at $3.18 (3,600 KRW)/kg, which is a 6.3% drop from the previous year. The stable import of kimchi is indicative of the changing living conditions in Korean society.

<Table 1> is to show the Kimchi Import and Export Status of Korea 2010~2016.11(https://www.ceicdata.com/en/korea/ trade-statistics).

2.2. Characteristics of the Kimchi Market in Major Countries

2.2.1. Japan

In Japan, the market for kimchi was formed centered around business use. The market for kimchi showed an increasing trend every year from 1994 to 2002, but has been declining every sine 2003 due to the shrinking market of pickled foods. The decline was even more prominent since 2005, when parasitic eggs were found in kimchi. Production volume in 2006 was 250 thousand tons, down 33.8% from 385 thousand tons in 2003 and 13.6% less than 285 thousand tons in 2005. All kimchi producing countries such as Japan, Korea, and China are following the same

<Table 1> Kimchi Import and Export Status of Korea (2010~2016.11)

Period	Export Volume (Unit: Ton)	Import Volume (Unit: Ton)	Export Value (Unit: 1,000 USD)	Import Value (Unit: 1,000 USD)	Trade Balance (Unit: 1,000 USD)
Total	177,642	1,502,382.10	621,759.00	767,098.00	-145,339.00
2010	29,671.70	192,936.40	98,360	102,019	-3,659
2011	27,429.00	230,077.90	104,577	120,874	-16,297
2012	27,663.60	218,844.50	106,608	110,842	-4,234
2013	25,631.30	220,217.70	89,277	117,431	-28,154
2014	24,741.50	212,937.80	84,033	104,396	-20,363
2015	23,111.20	224,124.20	73,543	113,237	-39,694
2016	19,393.40	203,243.60	65,361	98,299	-32,938

Source: https://www.ceicdata.com/en/korea/trade-statistics

trend of decreased production volume. Considering the consumption of kimchi ingredients such as cabbage and other vegetables by use in Japan, Korean kimchi industry views that the production statistics of kimchi by the Japan Food Industry Center are overrated and unreliable because it includes other pickled foods besides kimchi, and estimates that the actual production of Japanese kimchi is around 150,000 tons. Kimchi imports from Korea were restored in 2002 from the special effects of the FIFA World Cup Korea-Japan. Since 2003, Korean kimchi export to Japan continued to increase with the recovery of demand from restaurants for businesses and the increase in consumption of small-sized products (http://www.kotra.or.kr/search). Korean kimchi export growth in Japan was halted by the incident of parasitic eggs found in kimchi in late 2005, which led to a decline once again Kimchi made in Japan is distributed mainly by pickled vegetables (tsukemono) companies through three channels in the same way other pickled vegetables are distributed. The first channel consists of manufacturers → pickled food specialty wholesale stores → retail stores→ consumers (market share: 55~60%). The second channel consists of manufacturers → restaurant industry (market share: 20~30%). The third channel consists of manufacturers → supermarkets → consumers (market share: 15~20%). On the other hand, Korean kimchi is generally distributed through exclusive distributors (branches or importers), and sometimes imported and distributed by general buyers. In more detail, the following distribution structures are observed: ① Distribution source → general agency → special agent (wholesale store) → supermarket, retail store (retail dealer) → consumer; ② distribution source → general agency → consumer; ③ distribution source → large supermarket → consumer; and ④ distribution source → importer → wholesale store → retail store → consumer(Cho & Mukoyama, 2018).

Recently, Japanese kimchi added with salted-fermented squid or salted-fermented shrimp to give the taste of Korean-style kimchi products have also appeared in the market.

2.2.2. USA

Kimchi distributed in the US are products made by local supermarkets, local manufacturers in each region, and imported products from Korea. In the western region, kimchi is produced and sold by small-scale businesses operated by Korean-Americans. In Los Angeles, for example, there are 5 to 6 kimchi manufacturers, and competition for price and securing display stand is relatively high. In terms of price, the most expensive products are imported kimchi made in Korea, followed by kimchi made by local manufacturers, and local market produced kimchi. Imported kimchi made in Korea is about 30% more expensive than other products(Lee & Lee, 2017). Although kimchi is mainly consumed in Korean markets, in the case of Sunja's Kimchi, its products are highly recognized by mainstream society because they

are delivered to wholefood or natural food stores as well as university restaurants in Vermont. With the awareness of Korean food and kimchi rapidly rising in the mainstream society in the recent years, more specialty food online sites are increasingly handling Korean food and kimchi.

The proportion of local residents using the Korean restaurants in the US is gradually increasing, and the conditions for kimchi products to enter the mainstream market are on the rise on the strength of kimchi being ranked as one of the top five health foods in the world. In particular, Hispanics in the US, who are forming a large consumer group in the market with their annual increase in population, have no aversion to spicy food, and thus, are potential consumers lending opportunities for kimchi industry to expand the market of kimchi.

2.2.3. China

Korean style kimchi processed and produced in China has been enjoying booming sales in the Japanese and the Korean markets. Since the outbreak of SARS, the popularity of Korean kimchi in China increased when the myth that kimchi is effective in preventing SARS started to spread in China.

The food customs in China is clearly distinguished according to region. The food in the southern region is sweet, and that in the north is salty, while food in the east is spicy, and the food of the western regions is typically sour. The southern part of China mainly grows rice, which is also the staple food, because of the humid and hot weather. The northern part is dry and cold and is suitable for growing wheat, which is why flour is their staple food. Kimchi manufacturing plants in China are increasing rapidly due to the continuous increase in domestic and overseas market demand and the relocation of production lines of Korean kimchi companies to China for cost reduction(Seok, Park, Kim, Bae, Lee, & Oh, 2008). A survey of local kimchi processing factories shows that a significant number of kimchi factories use products produced by Korean investment companies to reduce production costs and maintain the taste of original Korean kimchi(An, Cho, & Kim, 2014). These companies introduce Korean production process and facilities, while process and produce kimchi using Chinese raw materials. Hence, their kimchi products are slightly different in taste from those imported from Korea, but holds a high market share because they are much cheaper than imported kimchi from Korea.

Most of the Chinese kimchi products are sold in major supermarkets in the 3 northeastern provinces and the coastal area. With the expansion of the international market and the improved awareness of Chinese kimchi, certain companies are increasing their export volume to Korean and Japanese markets. Imported kimchi in China has advanced into luxury hotels and large supermarkets through local agents, and are also being sold by wholesale or retail

through Korean food specialty stores(Choi & Lee, 2014). These Korean food specialty stores are usually small scaled businesses operated by Koreans or Korean-Chinese.

2.3. Literature Review

2.3.1. National Image, Product Image and Purchase Intention

The national image is an assembly of individual's beliefs, ideas, and impressions on the nation, as an object. The national image at the product level means the general perception of products produced in a particular nation (Kotler, 1997). Jaffe and Nebenzahl (2001) defined the national image as an individual's generalized or subjective beliefs and perceptions for a particular country. Kim (2018) said that the city image was a variable that enhances the loyalty and awareness of the place, and presented that to construct a national image was a unique feature of the nation, and the national culture was an important variable that could represent the national image. Wang, Li, Barnes, and Ahn (2012) have reviewed the influence of the national image on the product image, focusing on Chinese apparel products, and have found that the culture or national image of a specific nation have given positive influence on the product preference and the purchase intention. Then, have carried out a preference survey of Korean Kimchi targeting Chinese consumers, and emphasized the necessity of publicity for Kimchi image and national image of Korea. This was because to Chinese consumers, the national image of Korea led to the product image of Kimchi and it could be a key factor to stimulate the purchase of Chinese consumers.

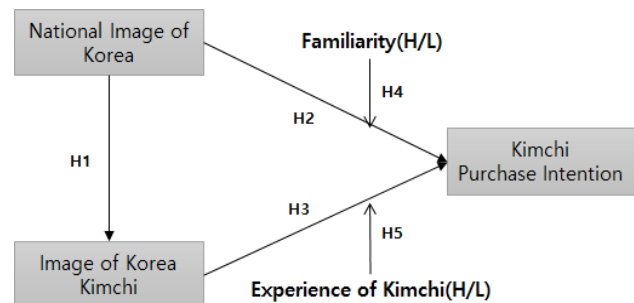### 2.3.2. Familiarity, Consumption Experience and Purchase Intention

Arjun and Holbrook (2001) suggested that brand emotion, which was a parameter in the process of forming brand loyalty, might give a positive effect on brand loyalty. They, also, claimed that customers were more likely to purchase and continue purchasing or re-purchasing products that had an affinity and familiarity with brands of the positive experiences from using in the past. Ha and Perks (2005) claimed that the higher the personal familiarity between customers and providers would give the less positive effect on customer satisfaction and positive word-of-mouth though the restoration effort from the provider for the failure was low. On the other hand, from the study of Brakus, Schmitt, and Zarantonello (2009), it was claimed that the consumer experience could be generated indirectly when they were exposed to advertising or marketing programs, and directly when purchasing and using products, and especially the empirical consumer value was not only creating experiences from products, brand and brand usage (Schmitt, 1999), but also might give influences on the attachment and intimacy of products as a result of the fulfilling diverse personal needs. Chen and Kim (2018) found that employee's communication

in a service company induced positive emotions of consumers, and these emotions gave a positive influences on the trust and personal life. In addition, Desmet, and Schifferstein (2008) also, from the study of consumers' emotion by dividing 2 dimensions, positive and negative, found that customers with positive emotions showed higher purchase intentions in the alternative selection process than those with negative emotions. In other words, the consumption experience was increasing not only the familiarity of the product, but also the product image, so could lead to purchasing. this study, therefore, was to investigate whether Chinese consumers' national image of Korea and Kimchi image influenced Kimchi purchase intention according to the degree of familiarity and consumption experience. played an important role in establishing a bond between customers and providers.

3. Methodology

3.1. Research Design

The following research model was established for this study in order to analyze the kimchi purchase intention of Chinese consumers based on the matters discussed in the theoretical review. This model was set on the assumption that the consumers' image of Korea affects their image of kimchi, and that their familiarity of image of Korea and kimchi experience will affect their kimchi purchase intention.

<Figure 1> Research design

It has been reported by many researchers, including Desmet and Schifferstein (2008) and Shuai (2010) that national image affects the purchase intention for products. Since 2000, the Korean Wave among the Japanese and the Chinese consumers have contributed to their preference not only for Korean popular culture such as TV dramas, pop songs and films but also for Korean food and products. Increased use of these products, combined with a positive attitude toward Korea is also promoting tourism in Korea as more Japanese and Chinese people are visiting Korea to experience Korean culture. Based on these studies, the following hypotheses were established.

<H1> The national image of Korea will have a positive impact on Korean kimchi image.

<H2> The national image of Korea will have a positive impact on purchase intention.

<H3> The Korean kimchi image of chinese consumers will have a positive effect on their kimchi purchase intention.

Jonhanssen (1989) argued that when product familiarity is lacking or completely absent among consumers, the impact of national images on the evaluation of the brand image will be very strong. Lee and Ganesh (1999) also noted in their study that when consumers are familiar with or have favorable feelings or otherwise about a country from which a product is manufactured, this country familiarity, combined with other information, will affect the way consumers process information in evaluating the product. Many studies related to familiarity have found that brand familiarity and product evaluation are positively correlated with purchase intention. Alba and Hutchinson (1985) regarded that product familiarity affects purchase intention regardless of the recollection of stimulus clues. Accordingly, it was proved that the higher familiarity between two groups would induce the higher customer satisfaction, repurchase intention, and positive word-of-mouth (Bitner, Booms, & Tetreault, 1990). In general, consumers evaluated the properties of a specific product through a halo effect called a national image for a foreign product. Thus, the following hypothesis was established based on the assumption that the images Chinese consumers have about Korea will positively affect their familiarity with Korea and kimchi purchase intention.

<H4> The higher the their familiarity, the more positive the country image will be on the purchase intention.

Previous studies that examined how foreigners perceive Korean food were mainly conducted in Korea using surveys conducted with subjects such as foreigners living in Korea or visiting Korea(Lee, 2010; Ha & Jang, 2010). Besides these studies on the perception of Korean food of local people in foreign countries are mostly from the United States, and largely consist of investigations on the people's preference for Korean traditional foods and on people's perception of Korean food services. According to a study that examined the awareness level of Korean food with Swedish university students, results showed that there are differences in the attribute assessment, including fresh vegetables, low fat, chicken and seafood, exotic ingredients, and value for money, between the subjects who have experiences with Korean food and those who do not have any experience, indicating that satisfaction is influenced by degree of experience (Ha & Jang, 2010). While these studies are about Korean food, the prevalent awareness of Korean food is still limited to kimchi and bulgogi. Hence, the present study considered the image of Korean food and that of kimchi as the same concept and established the following

hypotheses.

<H5> The higher the their kimchi consumption experience of chinese consumers, the more positive the Korean kimchi image will be on the purchase intention.

3.2. Analysis

3.2.1. Data

This study was conducted with Chinese consumers of both genders between the ages of 20 and 50. For this study, questionnaire was distributed to a total of 400 Chinese consumers. Of these, 280 were collected and 278 were used for statistical processing, excluding 2 that were found to be unsuitable for analysis.

3.2.2. Measurement

To study used the self-administered questionnaire survey method. In order to examine the Chinese consumers' perception of Korea, the present study prepared 12 questions based the study by Erickson, Johansson and Chao(1984) that defined national image. The response for each question was measured on a 5-point Likert scale ranging from 'very much' (5 points) to 'not at all' (1 point) according to previous studies(Shuai, 2010). As for the category of familiarity, the present study modified and supplemented the existing questions based on previous studies including that by Prentice and Anderson(2008), which provided the definition of familiarity. Consisting of 4 questions in total, the familiarity category was also measured on 5-point Likert scale ranging from 'very much' (5 points) to 'not at all' (1 point).

Since there was no previous study related to kimchi image, the present study modified and supplemented the existing questions based on previous studies that examined kimchi preference. Based on the questions used by Shuai(2010) asking foreigners about the attributes of Korean food, a total of 17 questions were developed for this study (Lee, 2010). Each item was modified so that the responses can be measured on a 5-point Likert scale ranging from 'very much'(5 points) to 'not at all'(1 point). For the category of kimchi experience, a total of 4 questions were prepared based on previous studies including that of Schmitt(1999). After modifying the questions to be relevant to Korean food and Korean restaurants based on previous studies, each question was measured on a 5-point Likert scale ranging from 'very much'(5 points) to 'not at all'(1 point). Lastly, according to the definition provided by Engel, Blackwell, and Miniard(1986) that purchase intention refers to 'the consumer's expected or planned future behavior and involves the possibility of the consumer's belief and attitude transferring to his/her behavior,' a total of 6 questions were composed. Each question was measured on a 5-point Likert scale ranging from 'very much' (5 points) to 'not at all' (1 point)(<Table 2>).

<Table 2> Contents of Questionnaire

Category	Content	Number	Scale
Image of Korea	National economic power, diplomacy, culture, image of the people, education, technology, sovereign credit, relationship with home country, favorability	12	5-point Likert Scale
Kimchi familiarity	Favorability, experience, familiarity, knowledge	4	
Image of Kimchi	Taste, fineness, spiciness, health aspect, use of fresh vegetables, unique scent, benefits to the immune system, fermented food, exotic characteristics, various kinds of side dishes on a table, price reasonableness, diversity of food	17	
Kimchi experience	Experience eating kimchi, experience visiting a Korean restaurant, experience making kimchi, experience learning kimchi	4	
Kimchi Purchase Intention	Overall satisfaction, intention of visiting a Korean restaurant, intention of purchasing kimchi ingredients, intention of recommending kimchi to others	6	
General Information	Gender, age, education, occupation, average monthly income, number of times of experiencing kimchi, occasion of first experience of kimchi	7	Nominal Scale

<Table 3> Factor analysis of Korea national Image

Item	National Characteristics	Cultural Characteristics
Korean companies are competitive in the global market.	.881	
Korean economy is well developed.	.771	
Korea is a country related to China.	.632	
Korea is a high-tech country	.557	
Korea is a democratic country.		.620
Korean culture is open.		.676
The level of culture in Korea is high.		.597
The products of Korean companies are reliable.		.554
The level of education in Korea is high.		.623
Korean people are kind.		.734
Korea is a credible nation.		.855
Korea is a likable country.		.857
Eigen Value	6.164	1.086
Cumulative Distribution Ratio	51.369	60.421
KMO and Bartlett's Test	χ^2=1767.158 (p=.000)	

<Table 4> Factor analysis of Korea Kimchi Image

Items	Unique Characteristics	Health	Preference
Kimchi tastes good.	.687		
Kimchi is excellent.	.686		
Kimchi is unique for having of a lot of fermented food.	.499		
Kimchi is authentic.	.759		
Kimchi is exotic.	.651		
The quality of Kimchi is good.	.693		
Kimchi is pungent		.798	
Kimchi is nutritionally well balanced.		.779	
Kimchi has many fresh vegetables.		.563	
Kimchi is good for the immune system.		.541	
Kimchi is spicy.			.654
Kimchi is salty.			.521
Kimchi uses a lot of spices like garlic.			.707
Kimchi consists of low calories.			.608
Kimchi is reasonably priced.			.633
Eigen Value	5.980	1.293	1.119
Cumulative Distribution Ratio	39.867	48.490	55.951
KMO and Bartlett's Test	χ^2=1580.940 (p=.000)		

4. Results

4.1. Validity and Reliability

Exploratory factor analysis was performed to verify the validity of each item used in measuring the national image of Korea, korea kimchi image, familiarity, kimchi consumption experience, purchase intention of chinese consumers. Principal component analysis was used to extract factors, and factor rotation was performed using the varimax method. <Table 3>, <Table 4>, <Table 5>, <Table 6>, and <Table 7> showed the results.

<Table 5> Results from factor analysis of Kimchi Familiarity

Items	Familiarity
I like Kimchi.	.817
I am familiar with Kimchi.	.897
I am well informed about kimchi.	.845
I have eaten Kimchi before.	.689
Eigen Value Cumulative Distribution Ratio	2.660 66.496
KMO and Bartlett's Test	χ^2=504.065(p=.000)

<Table 6> Factor analysis of Korea Kimchi Experience

Items	Experience
I have the experience of eating Kimchi.	.463
I have made Kimchi before.	.853
I have learned how to cook Korean food to make Kimchi.	.873
I have visited a Korean restaurant to eat Kimchi.	.828
Eigen Value Cumulative Distribution Ratio	2.390 59.758
KMO and Bartlett's Test	χ^2=390.011(p=.000)

<Table 7> Factor analysis of Kimchi Purchase Intention

Items	Purchase Intention
Kimchi is satisfactory.	.818
Kimchi generally corresponds to what I had in mind.	.865
I intend to purchase Kimchi ingredients or Kimchi.	.806
I intend to recommend Kimchi to relatives, family, and friends.	.877
I intend to visit a Korean restaurant or a store that sells kimchi to eat kimchi.	.767
I intend to recommend going to a Korean restaurant to eat kimchi to my relatives, family, and friends.	.839
Eigen Value Cumulative Distribution Ratio	4.126 68.766
KMO and Bartlett's Test	χ^2=979.664(p=.000)

<Table 8> shows the reliability analysis results using the Cronbach's alpha. Reliability coefficient that is higher or equal to 0.6 is significant.

<Table 8> Reliability Analysis

Category		M	D	Cronbach's α
National Image	National Characteristics	3.58	0.61	.68
	Cultural Characteristics	3.48	0.81	.71
Image of Kimchi	Unique characteristics	3.31	0.68	.83
	Health	3.56	0.71	.63
	Preference	4.01	0.65	.76
Familiarity		2.19	1.01	.81
Kimchi Experience		2.95	0.94	.69
Kimchi Purchase Intention		3.28	0.79	.84

4.2. Hypothesis Testing

4.2.1. The relationship between Image of Korea and Image of Kimchi

<Table 9> showed that the national characteristics of Korea image(t=4.319, p=0.000) and the cultural characteristics of Korea image(t=-3.118, p=0.002) have significant effect on the image of kimchi in the sub-factors of unique characteristics of kimchi. Also, R^2 of Korea image and image of kimchi was 28.2%. On the health aspects of kimchi image, the national characteristics of Korea image tested t=3.391, p=0.001. and the cultural characteristics of Korea image(t=-2.411, p=0.017) have significant effect. It was found that the image of kimchi as healthy. National characteristics of the image of Korea was significant(t=3.539, p=0.001). But the cultural characteristics of Korea image was not significant(t=0.859, p=0.391). The R^2 of Korea image explaining the preference aspects of kimchi image was 43.7%, with the national characteristics of the image of Korea having the highest influence on the preference aspect of kimchi image and the cultural characteristics of the image of Korea also having an influence on the preference aspects of kimchi image.

<Table 9> Relationship between image of Korea and image of kimchi

Dependent Variable	Independent Variable	B	SE	β	t	p
Unique Characteristics of Kimchi	Constant	1.486	.264		6.012	.000
	National characteristics	.471	.103	.408	4.319	.000***
	Cultural characteristics	-.217	.067	-.243	-3.118	.002**
	R2=.282 F=19.127 p=.000					
Health	Constant	1.684	.248		6.805	.000
	National characteristics	.327	.096	.326	3.391	.001**
	Cultural characteristics	-151	.063	-.192	-2.411	.017*
	R2=.254 F=16.574 p=.000					
Preference	Constant	.057	.325		.176	.860
	National characteristics	.448	.126	.295	3.539	.001**
	Cultural characteristics	-.070	.082	-.059	-.859	.391**
	R2=.437 F=23.203 p=.000					

Note: p < .05*, p < .01**, p < .001***

4.2.2. Relationship Between Korea Image and Kimchi Purchase Intention

According to the multiple regression analysis performed to verify whether the consumers' image of Korea has an effect on kimchi purchase intention, results showed that the national characteristics of Korea image(t=5.623, p=0.000) and cultural characteristics of Korea image(t=-3.711, p=.000) was significant on kimchi purchase intention. R^2 of Korea image explaining the kimchi purchase intention was 56.8%.

4.2.3. Relationship Between Korea Kimchi Image and Kimchi Purchase Intention

Analysis results of kimchi image on kimchi purchase intention showed that kimchi purchase intention is significantly influenced by kimchi image in terms of its unique characteristics(t=1.118, p=0.005), the health aspects of kimchi image(t=2.830, p=0.012), and the preference aspects of kimchi image(t=2.530, p=0.010). The R^2 of kimchi explaining the kimchi purchase intention was 67.4%.

4.2.4. Hierarchical Regression Analysis

The following shows the results of a hierarchical regression analysis on how Chinese consumers' intention to purchase kimchi varies according to their image of Korea.

The moderation effect can be tested through a two-step process by Baron and Kenny (1986). In the first step, it is tested whether the independent variables and control variables have significant effect on the dependent variable. In the second step, the moderating effect term should have a significant influence in the model where the interactive term of the independent variable and the control variable are inserted, and the coefficient of determination value should be significantly increased (Lee, 2010)(<Table 12>).

In the Step 2, analysis involving the moderating effect of familiarity on kimchi purchase intention, kimchi purchase intention increased with higher familiarity and the explanatory power increased from 8.9% (p<.001) to 78.7% from inputting familiarity.

In the Step 3 analysis of moderating effect, the moderating effect term did not affect the kimchi purchase intention and the R-squared increment was insignificant, indicating that moderation effect was not found in the influence the consumers' image of Korea has on their kimchi purchase intention(<Table 13>).

<Table 10> Relationship between image of Korea and kimchi purchase intention

	B	SE	β	T	p
Constant	.091	.230		.396	.693
National characteristics	.504	.090	.409	5.623	.000***
Cultural characteristics	-.216	.058	-.218	-3.711	.000***
R2=.568 F=65.810 p=.000					

note: p < .05*, p < .01**, p < .001***

<Table 11> Relationship between kimchi Image and the kimchi purchase intention

	B	SE	β	T	p
Constant	.303	.212		1.435	.153
Unique characteristics of Kimchi	.175	.054	.059	1.118	.005**
Health	.169	.062	.156	2.830	.012*
Preference	.158	.067	.148	2.530	.010*
R2=.67.4 F=75.688 p=.000					

Note: p < .05*, p < .01**, p < .001***

<Table 12> Relationship between Korea image and kimchi purchase intention (with familiarity as moderator)

	Step1		Step2		Step3-1		Step3-2		Step3-3	
	B	β	B	β	B	β	B	β	B	β
Constant	0.081		0.394		-0.691		-0.028		0.715	
Unique Characteristics of Kimchi (X1)	0.491	0.398***	0.349	0.271***	0.614	0.512**	0.319	0.217***	0.391***	0.275
Health (X2)	-0.201	-0.219***	-0.189	-0.179**	-0.189	-0.029***	-0.029	-0.031	-0.179**	-0.198
Preference (X3)	-0.318	-0.031	-0.039	-0.029	-0.037	-0.031***	-0.149	-0.124***	-0.029***	-0.021
Familiarity (D)			0.429	0.351***	0.356	0.374**	0.429	0.369	0.409	0.351
X1*D					-0.101	-0.716				
X2*D							-0.049	-0.321		
X3*D									0.031	0.247
F	61.791		71.249		61.597		64.124		61.248	
R2(ΔR2)	0.698		.787(0.089)		.792(.005)		.794(.002)		.795(.001)	

Note: p < .05*, p < .01**, p < .001***

<Table 13> Relationship between kimchi image on kimchi purchase intention (with kimchi experience as moderator)

	Step1		Step2		Step3-1		Step3-2		Step3-3	
	B	β	B	β	B	β	B	β	B	β
Constant	.312		.489		.711		.768		.213	
Image (X1)	.029	.049	.259	.214***	.549	.529**	.512	.524**	.241	.214**
Health (X2)	.164	.124**	.241	.039	.101	.029	.021	.024	.324	.261*
Taste (X3)	.184	.194*	.048	.219**	.204	.249**	.411	.248**	.204	.498**
Experience (E)			.201	.249***	.792	.814**	.731	.871**	.524	.614**
X1*E					.144	.907*				
X2*E							.124	.914*		
X3*E									.124	.664
F	74.148***		54.148***		46.248***		45.712***		42.914***	
R2(ΔR2)	.608		.651(.043)*		.660(.009)*		.668(.008)		.670(.002)	

note: $p < .05$*, $p < .01$**, $p < .001$***

5. Discussion and Conclusions

5.1. Summary

This study was to investigate how the national image of Korea influence the Korea kimchi image and Korea kimchi purchase intention, in company with familiarity and kimchi experience have moderating effect on the Korea image affecting kimchi image and kimchi purchase intention.

To this study, we were performed after setting research hypotheses suitable for the research model. A self-administered questionnaire was used to assess the image of Korea and kimchi image of Chinese consumers. The results of the study are as follows.

First, <H1>, the national image of Korea will have a positive impact on Korea kimchi image was showed in positive. It was analyzed that, for Chinese consumers, the image of Korea's national characteristics and cultural characteristics gave a positive effect on Kimchi's unique characteristics, that is health, and preference. Second, It was accepted <H2>, the national image of Korea will have a positive impact on kimchi purchase intention of Korea. third, A positive effect was confirmed for <H3> that the consumers' image of kimchi/Korean food will have a positive effect on their kimchi purchase intention. Forth, It was not significant <H4> that the chinese consumers' familiarity on the Korea image will have a positive effect on their kimchi purchase intention, we can understand that the consumers' familiarity with the image of Korea does not affect their kimchi purchase intention. A positive effect was confirmed for <H5> that the kimchi/Korean food image of Chinese consumers' will increase their kimchi consumption experience and have a positive effect on their kimchi purchase intention. therefor we can expect that the experience of Korea kimchi consumption has more positive effect on kimchi purchase intention than the image of Korea.

5.2. Implication

We would like to propose the following to vitalize the kimchi distribution industry In the future. First, the government should be active support to promote the kimchi distribution industry. Active investment from the government must be preceded to establish a mass production system from modernizing kimchi production. Since most of the kimchi companies are small or medium-sized companies, they are in need of government support to modernize their facilities and produce high-quality kimchi products. Second, There are expected implement a policy to diversify export markets to expand kimchi exports. As the originator country of kimchi, Korea need to establish strategic alternatives targeting various consumers worldwide by producing high-quality kimchi that will attract the tastes of foreign consumers. It is especially important to develop kimchi market in various regions in the world by expanding kimchi consumption, which has been concentrated in Japan and China. In other words, it is necessary to standardize kimchi industry and develop joint brands with foreign companies to provide differentiated kimchi products. Third, the safety of kimchi products must be ensured. As demonstrated in the 'parasite eggs' incident in 2005, ensuring food stability is vital for exporting kimchi. Above all, it is imperative to secure a system capable of managing the raw materials for kimchi. Only then can Korean kimchi be recognized as a safe food in the world food markets and further globalized.

Korean kimchi producers undergo difficulties in meeting supply and demand because of unstable crop of kimchi raw materials due to natural disasters, inherent characteristics of vegetables that prevent long-term storage, and the unstable distribution system for kimchi raw materials. Thus, in order to vitalize the kimchi industry in the Chinese market and see to its success, it is necessary to actively manage the supply and demand imbalance. Reviewing the current status

of the Korean kimchi market in China, it is expected that the demand for kimchi in China will increase since Korean kimchi goes well with Chinese food that are usually greasy. However, the consumption market for Korean imported kimchi in China is very limited due to the relatively high prices of Korean imported kimchi and problems with maintaining consistent taste and quality of Korean imported kimchi due to poor refrigeration in the logistics system in China. Given the unique characteristics of kimchi, which is sensitive to temperature and fermentation duration, it is important to secure a refrigerated logistics system and an effective distribution network.

5.3. Limitation and Future Research

Nevertheless, This study has the following limitations. First, This is a comprehensive study that has been conducted throughout the kimchi distribution industry. It is necessary to focus on ways to localize them. In doing so, the flavor of raw garlic needs to be controlled along with the best management of sour flavor (from fermentation) since these characteristics have been found to be less preferred by Chinese consumers. Second, it is also necessary to differentiate Korean imported kimchi from products by Chinese competitors by developing new packing container designs including gift set package designs to improve the presentation of Korean imported kimchi as high-quality premium products. Third, efforts should be made to promote Korean brands by developing varieties of kimchi products such as Bossam kimchi, seasoned dried radish and cabbage kimchi in addition to perfecting the quality of Napa cabbage kimchi. Forth, one-serving products with compact packing needs to be developed and distributed to a wider consumption market including convenient stores based on cooperation with refrigerated logistics companies in China. Fifth, it is necessary to expand export Korean kimchi by developing new products using various Chinese vegetables and kimchi seasoning. Sixth, it is important to disseminate the Korean kimchi culture by proposing various dishes using Korean kimchi and also developing kimchi recipes tailored to the taste of respective regions in China. Through advertisement and promotional events, the Korean government, research institutes and kimchi enterprises should cooperate strategically for local specialized marketing in China.

Recently, Korea's national identity and image have been improved by the influence of the Korean Wave. Korean Kimchi should be promoted as a culture contents industry by simply allowing kimchi to be positioned as a culture that can express the identity of Korea outside the concept of food. As the suzerain country of kimchi, for globalization of originality and scientific excellence of food culture, we should strive to develop Korean culture contents such as kimchi making education program.

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