Table of Contents

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Introduction

This research aims to investigate the factors that affect the demand for cabbage in the two different localities in Busan South Korea, and how do these factors vary from each locality. The two localities that has been chosen are Haeundae and Young-Do. The reason why these two localities have been selected is that the two localities are very different in social aspects such as population by age and income levels and also in physical aspects such as infrastructure. Therefore, by investigating the difference of demand factors between the two localities, this reseach can determine how significant an impact the social aspects has on the various demand factors. Cabbage is the main ingredient in the making of Kimchi, a traditional food of South Korea, which is usually accompanied with most of the meals of the Koreans. Therefore, there is a significant demand for cabbage in South Korea, especially during the Kimchi making season, Kim Jang, in November[1]. This research will hence be focusing on the time period of November and December of 2013, on how the demand for cabbage is affected by various factors of demand during this specific time period. Cabbage being an agricultural product, there are frequent price fluctuations and hence affecting the quantity demanded for cabbage in the market. Besides the price factor, there are also non-price factors that affect the demand for cabbage such as substitutes like the "already-made" Kimchi, income, lifestyle and culture.

The research is connected to the economic theory of demand and supply, where there are various factors that affect the demand for cabbage in the market. One significant factor would be that of price which would directly affect the quantity consumed, as theoretically represented by law of demand, where there is an inverse relationship between price and quantity consumed of a good. To investigate the differing demand factors and their degree of significance in the two localities, this research would also consider the differing price elasticity of demand, cross elasticity of demand and income elasticity of demand for cabbage between the two localities. This research would also take into consideration other non-price factors, such as consumer behaviour and cultural differences. Through considering various demand factors for the two localities, the research aims to find out how these factors vary from each locality and how significant is each factor of demand in the localities.

[1] "Kimjang: A Korean Tradition of Preparing for Winter." Koreataste. October 11, 2010. http://www.koreataste.org/lang/en/en/magazine-en/reports-en/kimjang-a-korean-tradition-of-preparing-for-winter/. Accessed October 21, 2013.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Background Information

Kimchi is a traditional food of South Korea and though there are many other forms, the most commonly consumed Kimchi is one made out of cabbage. Traditionally, Korean families would make Kimchi at home at different time periods of the year, and these times are called the Kimjang season. One of these times falls at around November and December, where people prepare enough Kimchi to last them for the winter[2]. Hence, this time of the year is when the demand for cabbage peaks. However, only some keep to the tradition as it is known to be time-consuming and substitute goods such as the "already-made" Kimchi is available in the market as an alternative way to fulfill their demand for Kimchi.

Kimchi	**"Already-made" Kimchi**
	
Image of Kimchi from: http://untrendoid.net/63	*Image of "already-made" Kimchi from: http://www.seriouseats.com/2011/03/what-is-the-best-kimchi-brand-korean-cabbage.html*

The two localities differ very much in various aspects such as population by age, infrastructure and income levels. Therefore, it is likely that demand factors for cabbage would vary from each locality due to different lifestyle and consumer behaviours. This is a significant area of research for South Korea, where it is a tradition to make Kimchi at home, and is also a traditional food that is accompanied by most of their meals. However, statistics show the younger population leaning more towards buying "already made" Kimchi. According to recent findings, while 83.0% of the people aged fifty and above said they make Kimchi at home while only 36.9% in their forties and 20.7% in their thirties make their own Kimchi[3]. This means that the population by age in each locality might have an effect on the demand for cabbage with the differing lifestyles of individuals.

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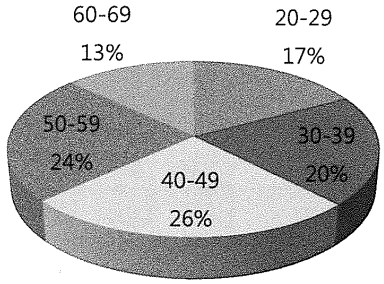
[2] "Kimjang: A Korean Tradition of Preparing for Winter." Koreataste. October 11, 2010. http://www.koreataste.org/lang/en/en/magazine-en/reports-en/kimjang-a-korean-tradition-of-preparing-for-winter/. Accessed October 21, 2013.

[3] Young Hee, Lee. "김장문화의 나눔정신, 이 시대에 맞게 살리려면 …." Korea JoongAng Daily. December 06, 2013. http://joongang.joins.com/article/aid/2013/12/06/12916332.html?cloc=olink|article|default. Accessed December 07, 2013.

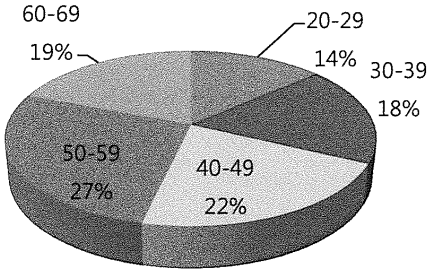
Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

The table below compares and contrasts the two localities in their various characteristics.

<table>
<tr><th><u>Haeundae</u></th><th><u>Young-Do</u></th></tr>
<tr><td colspan="2">Population by age[4]</td></tr>
<tr><td>Ages 20~29: 52,397 (people)
30~39: 61,659
40~49: 77,564
50~59: 72,062
60~69:39,685

Younger Generation(20~39): 37%
Older Generation(40~69) : 63%</td><td>Ages 20~29: 13,134 (people)
30~39: 17,661
40~49: 20,719
50~59: 26,067
60~69: 18,503

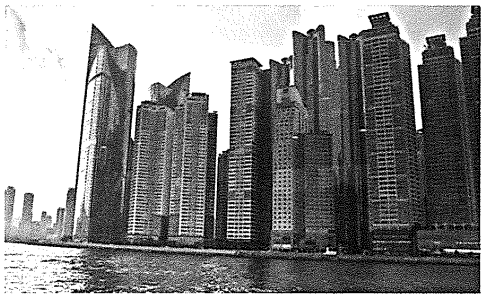
Younger Generation(20~39): 32%
Older Generation(40~69): 68%</td></tr>
<tr><td colspan="2">Infrastructure</td></tr>
<tr><td> 

Image from: http://blog.daum.net/openbottle/18</td><td> 

Image from: http://www.panoramio.com/photo/590160</td></tr>
</table>

[4] Appendix 1. (pg 18).

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

-Many high-rise buildings -Many apartment buildings -Higher living standards	-Mostly small private houses -Less high-rise buildings -Less apartment buildings
Price of relevant goods & Income	
Income level[5] -Households with income more than 5,000,000 Won: 12.4% (highest among all the cities in Busan) -Households with income more than 3,000,000 Won: 42.2% <u>Price of making Kimchi</u>[6]<u>: 190,000 Won</u> - This price is based on using 20 cabbages, inclusive of other ingredients as well. - One cabbage weighs about 3kg so 20 cabbages would give a total weight of 60kg. - 1kg of Kimchi: 3,166 Won <u>Price of "already-made" Kimchi: 8,000 Won (1kg)</u> - This is the price of the good in a supermarket - 60kg of Kimchi: 480,000 Won	***Income level***[7] Below 500,000 Won 15.0% 500,000~1,000,000 Won 30.0% 1,000,000~1,500,000 Won 12.5% 1,500,000~2,000,000 Won 15.0% 2,000,000~3,000,000 Won 15.0% Etc 12.5% This represents monthly income. **The price of goods were found to be similar in both the localities.*

The various features are reflective of the different social characteristics of the two localities. This research is focused on the demand factors one of which is income, a factor that can affect consumption of cabbage in the localities. Therefore, the differences in living standards can be an indicator of differences of income, as seen from how Haeundae, a locality with a more modern infrastructure and a higher proportion of working population, has a higher average income level than Young-Do.

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[5] Won Soo, Jang. "부산 명품도시 '해운대와 동래구'." Hankooki. November 14, 2012. http://news.hankooki.com/lpage/economy/201211/h2012111410173951380.htm. Accessed November 7, 2013.

[6] Sun Ok, Yeon. "김치지수 나왔다...11월 91.3 김장비용 19.5만원." Chosunbiz. November 08, 2013. http://biz.chosun.com/site/data/html_dir/2013/11/08/2013110802336.html. Accessed November 11, 2013.

[7] Appendix 2. (pg 19).

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Methodology

In primary research, a total of 120 people were surveyed from the two localities in November(2013), 60 from each locality, regarding their demand for cabbage in the market. Secondly, another survey was done in December(2013) with a sample size of 30 people from each locality with just one question with how people reacted to the price change in cabbages during the Kimjang season. With the primary data collected by the surveys, the effects of the various factors on the demand for cabbage in each locality would be analyzed and how they differ from one another. Secondary sources would also be utilized to aid the research, most significantly in finding out the price changes of cabbages in the market and also the differing characteristics of the two localities. Shown below are the survey questions that would be asked in the two surveys.

Survey part I

No.	Survey Question
1	Do you make Kimchi at home, or buy the "already-made"Kimchi?
2	What is the reason for buying the "already-made" Kimchi?
3	How many cabbages do you use to make Kimchi?
4	Was there an increase/decrease in your income this year?
5	By how much did your income increase/decrease?
6	With the increase/decrease in income, how did you change your consumption of cabbages?
7	By how much did you change the number of cabbages purchased?
8	What is the most important factor you consider when deciding the quantity of cabbage bought?

Survey part II

Survey question: Recently, There was a price increase in cabbages due to increase in demand. How many cabbages did you use during this "Kim Jang" season?

Since the research is largely focused on the demand for cabbage, the survey would aim to find out the quantity purchased of cabbage by the consumers and how they changed their consumption with an actual change in price and how the non-price factors affect their consumption. These behaviours would then be analysed to find out how significantly the various factors affect the demand for cabbage in the two localities and how each locality has its most and least significant factors.

The differing significance of some factors between the two localities is measured by elasticity values. Elasticity values may be determined as a result of the changes in price observed in the market, and changes in income investigated in the surveys. The elasticity values and the significance of other factors are then cross analysed with one another to derive a suitable explanation to the varying significance of the factors in the two localities.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Analysis of Data

Substitutes

Substitutes can be defined as goods that meets the needs or wants of the consumers that other similar goods provide[8]. This is a factor of demand as more consumers switching over to substitutes would bring about a fall in demand for the good.

The substitute for cabbage that has been considered in this research is the "already-made" Kimchi sold in the market. As compared to the traditional Kimchi making, these goods tend to be more convenient and save them the trouble of domestic Kimchi making. Kimchi-making is a strong tradition in South Korea however, younger generations tend not to practice the tradition as much as the older generation as it is time consuming. Therefore, they would tend towards buying the already-made Kimchi for convenience.

A higher percentage of consumers from Young-Do make their own Kimchi as compared to consumers from Haeundae, meaning that the demand for cabbage in Young-Do would be higher than that of Haeundae. This is shown by the survey result of the following question.

Do you make Kimchi at home or buy the "already made" Kimchi?				
	At home	"already made"	Both	Total
Haeundae	26	34	0	60
Young do	52	8	0	60

Table 1. 1: Survey Question 1[9]

This shows how younger generations tend not to make their own Kimchi at home, as seen by the 37% of the population in Haeundae is aged from 20-39 as compared to the 32% of Young-Do. This suggests that substitute as a factor of demand for cabbage would be stronger in Haeundae than in Young-do. The reasons for consuming the substitute good, are as shown by the survey result below.

[8] "Substitute Definition | Investopedia." Investopedia. http://www.investopedia.com/terms/s/substitute.asp. Accessed January 5, 2014.

[9] Appendix 4. (pg 23).

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

What is the reason for buying "already-made" Kimchi?					
	Busy lifestyle	Convenience	Better Taste	Cheaper Price	Total
Haeundae	14	8	0	12	34
Young-Do	2	0	2	4	8

Table 1. 2: Survey Question 2[10]

It can be seen that among the younger generation who are assumed as the working population prefers the "already-made" Kimchi due to the limited time in their lifestyle as seen by the high percentage of their answer choices of convenience and busy lifestyle. This is because culturally the making of Kimchi takes up time and thus the busy lifestyle of the younger generation can also be considered as a factor that affects the demand for cabbage, especially in Haeundae. Therefore, busy lifestyle and convenience as a factor of demand for the "already made" Kimchi is more significant in Haeundae than Young-do.

It is also notable that cheaper price of the substitute is also chosen by a number of surveyees in both the localities. Economically, as price of cabbage increases, the demand for the substitute should increase, showing a positive relationship. Price of cabbage as affecting the demand for the substitute has been found out through survey part II where it reflected the number of people who switched to the "already-made" Kimchi with an increase in price of cabbages.

Recently, there was a price increase in cabbages as compared to last year. How many cabbages did you use during this "Kim Jang" season?						
	1~3	3~6	6~10	>10	Switched to Substitute	Total
Haeundae	2	4	10	6	8	30
Youngdo	0	2	6	16	6	30

Table 1. 3: Survey Part II[11]

There was a 43.5% increase in the price of cabbage[12] in busan with the price at 1980₩[13]. Therefore, cross elasticity analysis can be used to determine in which locality the substitute effect was stronger. The diagram below shows the shift in the demand for "already made" Kimchi with the increase in price of cabbage as consumers switch over to the substitute in the two localities.

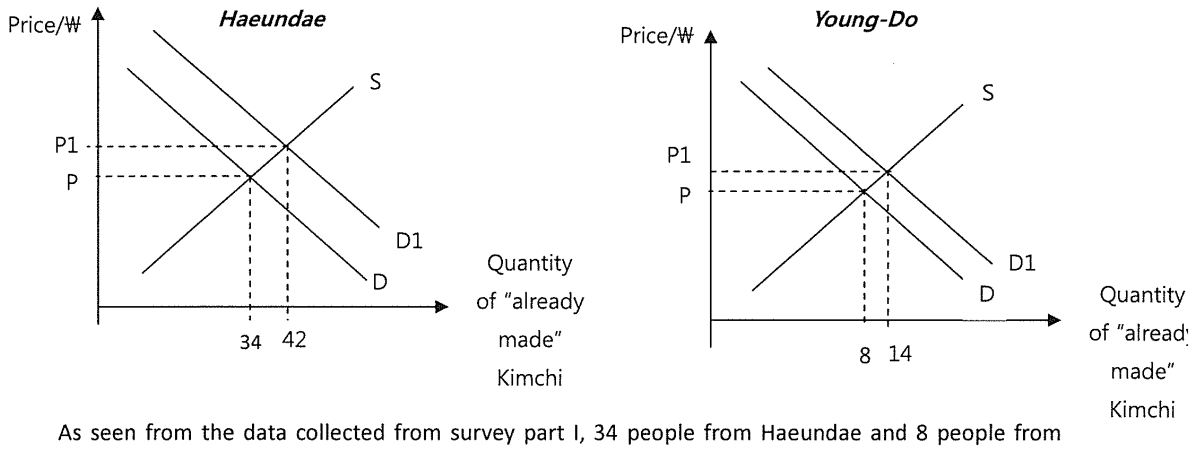
[10] Appendix 4. (pg 23).

[11] Appendix 4. (pg 27).

[12] Pyung Ho, Kim. "[생활물가]김장철 맞아 무·배추 가격 올라." Dailian. November 22, 2013. http://www.dailian.co.kr/news/view/405697. Accessed December 13, 2013.

[13] US$1.00 = 1029.60₩ as of April 13, 2014.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?



As seen from the data collected from survey part I, 34 people from Haeundae and 8 people from Young-Do were purchasing "already made" Kimchi. From the second survey done later, 8 and 6 people switched to "already made" Kimchi respectively and thus the shift of the demand curve to the right as shown in the diagrams hence reflecting an increase in the quantity demanded of the good. Using the cross elasticity formula,

$$Cross\ Elasticity\ of\ Demand = \frac{\%\ \text{change in quantity demanded in good B}}{\%\ \text{change in price in good A}}$$ [14]

the cross elasticity of demand(XED) for cabbage in relation to the "already made" Kimchi can be calculated. According the calculation values, both localities had positive XED values, Haeundae with a XED value of 0.54 while Young-Do had 1.72 according to calculations. This shows that the demand for the "already made" Kimchi in Young-Do is more responsive to the change in price of cabbage. Therefore, it can be said that the substitute effect as a demand factor is more significant in Young-do than Haeundae which is contrary to the background information whereby people in Young-Do prefer making their own Kimchi at home. The XED value in Haeundae is less than 1 which shows that cabbages and the "already-made" Kimchi are weak substitutues where as in Young-Do, where the XED value is greater than 1, the two goods are strong substitutes of each other. Haeundae with a higher proportion of the population in the "young generation" was expected to have a larger XED value. However, as survey results show, though more people from Haeundae do use the substitute instead of purchasing cabbages for Kimchi, the people who do make their own Kimchi at home are less responsive to the price change of cabbages in switching over to the substitute.

[14] Moffatt, Mike. "Cross-Price Elasticity of Demand." About.com. http://economics.about.com/cs/micfrohelp/a/cross_price_d.htm. Accessed December 13, 2013.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Price

According to the law of demand, the quantity demanded of cabbage should decrease with an increase in the price of cabbage[15]. Therefore, price is also a factor of demand and the significance of this factor in the two localities have been found through the survey results.

How many cabbages do you use to make Kimchi?					
	Around 3 (3)	Around 6 (6)	Around 10 (10)	>10 (20)	Total
Haeundae	4	2	18	2	26
Young-Do	6	2	20	24	52

Table 2. 1: Survey Question 3[16]

From the first survey a question was asked on their usual demand for cabbage during regular Kimjang seasons. Haeundae's surveyees had a total consumption of cabbages of about 244 cabbages, while Young-Do's surveyees had a total consumption of about 710 cabbages. The second survey was then used to determine the change in the quantity demanded with the increase in price. With this data and the data from table 1.3, a table that shows the change in the consumption of cabbages in the two localities can be formed.

Condition \ Locality	Haeundae	Young-Do
Normally (converted to 30 ppl)	282	410
After price increase (30 ppl)	250	392

Table 2. 2

As seen from the data above, the quantity drop of 32 in Haeundae is greater than the 18 in Young-Do. This shows that the demand for cabbage follows the law of demand for both the localities. The following diagram shows the quantity shift for both the localities with the price change of 43.5%.

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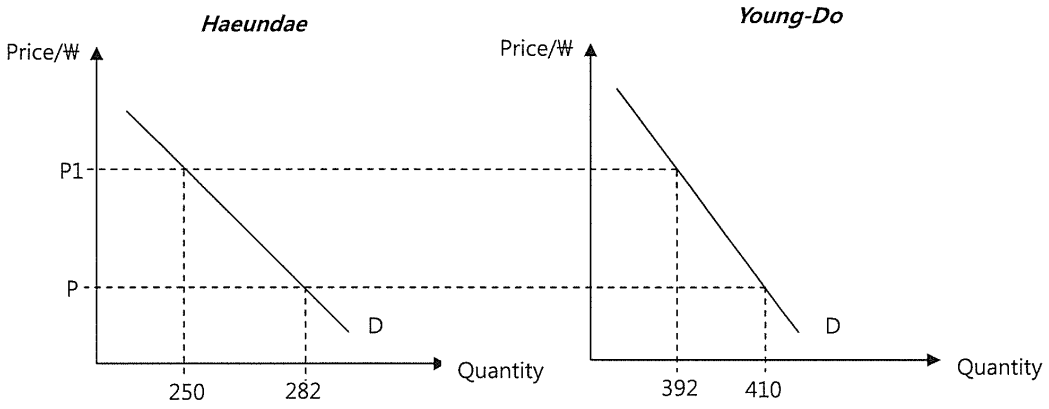
[15] "Law Of Demand Definition | Investopedia." Investopedia. http://www.investopedia.com/terms/l/lawofdemand.asp. Accessed December 13, 2013.

[16] Appendix 4. (pg 23).

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?



The price elasticity values(PED) of the two localities can hence be calculated using the following formula. This helps us determine whether the demand for cabbage in the two localities are price elastic or price inelastic. The formula for PED is given as

$$Price\ Elasticity\ of\ Demand = \frac{\%\ \text{change in quantity demanded}}{\%\ \text{change in price}}$$ [17]

The PED value for cabbage was 0.26 for Haeundae and 0.10 for Young-Do. From the calculated elasticity values, the demand for cabbage in both the localities is price inelastic as the elasticity values are below one. This means that in both the localities, the consumers are not very responsive to a change in price of cabbage. However, it is seen from the higher PED value of Haeundae that people from this locality is relatively more responsive to the increase in price of the cabbage.

[17] Moffatt, Mike. "Price Elasticity of Demand." About.com. http://economics.about.com/cs/micfrohelp/a/priceelasticity.htm. Accessed December 13, 2013.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Income

The demand for a good can change with a change in household income as the proportion of income spent on the good changes. Therefore, the significance of income as a factor of demand was found out through the survey results. The survey aimed to find out how the general change in the consumers' annual income had an impact on their consumption of cabbages during the Kimjang season. The relevant survey data was from those who purchase cabbage to make their own kimchi at home. The tables below show the changes in income of the surveyees in the two localities.

Haeundae[18]			
	Increased Income	Decreased Income	No change
Increase/decrease of <5%	12	4	-
Increase/decrease of about 8%	6	0	-
Increase/decrease of >10%	2	0	-
No. of people	20	4	2

From this set of data, the average income change in the two groups, increased income and decreased income can be calculated. For the increased income group, there had been an average increase of $\frac{(12\times5)+(6\times8)+(2\times15)}{20}\% = 6.9\%$. With the same method of calculation, the decreased income group had an average decrease of 5%. Hence, the net change in income for Haeundae was a 1.9% increase.

Young-Do[19]			
	Increased Income	Decreased Income	No change
Increase/decrease of <5%	10	8	-
Increase/decrease of about 8%	15	2	-
Increase/decrease of >10%	4	0	-
No. of people	29	10	13

In the locality Young-do, the increased income group had an average increase of 7.9% and the decreased income group had an average decrease of 5.6%, giving a net change in income for Young-do as 2.3% increase.

[18] Appendix 4. (pg 24).
[19] Appendix 4. (pg 24).

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

The change in the quantity demanded for cabbage with the change in the surveyees's income has also been found as shown below.

Haeundae[20]				
	Around 3	Around 6	Around 10	>10
Increased Purchases	7	4	0	0
Decreased Purchases	4	6	1	0
No change	4			

Young-Do[21]				
	Around 3	Around 6	Around 10	>10
Increased Purchases	11	2	0	0
Decreased Purchases	4	3	0	0
No change	32			

For Haeundae, there has been a total increase in the quantity of cabbages purchased by about 45, and a total decrease by about 48, giving a net change in the quantity of cabbages purchased of -3. For Young-Do, there was a total increase of 45 cabbages and a total decrease of 30 cabbages, giving a net increase in the quantity of cabbages purchased of 15. Just by looking at these quantities, it can be seen that the change in quantity is greater in Young-do than in Haeundae, which suggests that income as a factor of demand is more significant in Young-do.

However, for a more detailed analysis, the income elasticity of demand(YED), which shows the responsiveness of the demand for a good with a change in income, can be calculated for each of the localities. The formula for finding YED is

$$Income\ Elasticity\ of\ Demand = \frac{\%\ \text{change in quantity demanded of good}}{\%\ \text{change in income}}$$ [22]

Using the base quantity as the quantity of cabbages from table 2.1 the YED value for the two localities can be calculated. In Haeundae, the YED value was calculated as 0.64 while the YED value for Young-Do was 0.92. Both the YED values were less than one, which shows that the demand for cabbage in the localities is income inelastic. This also shows that cabbage is a normal good in both the localities, which is a common characteristic of food products. The higher the value of YED, the more responsive is the demand for a good with a change in income, hence showing that income as a factor of demand is more significant in Young-Do than in Haeundae.

From the background information, it is seen that the income in Haeundae is higher than that of Young-Do. Therefore, it was hypothesised that Haeundae would have a lower YED value as the proportion of their income spent on cabbages would be lower on average. This is because of the fact that the percentage of income spent on the same quantity of cabbages would be less if a consumer has a higher income. From the results, this has proven to be true as Haeundae had a lower YED value, and hence it shows that the amount of income does have an impact on the responsiveness of a demand for a good.

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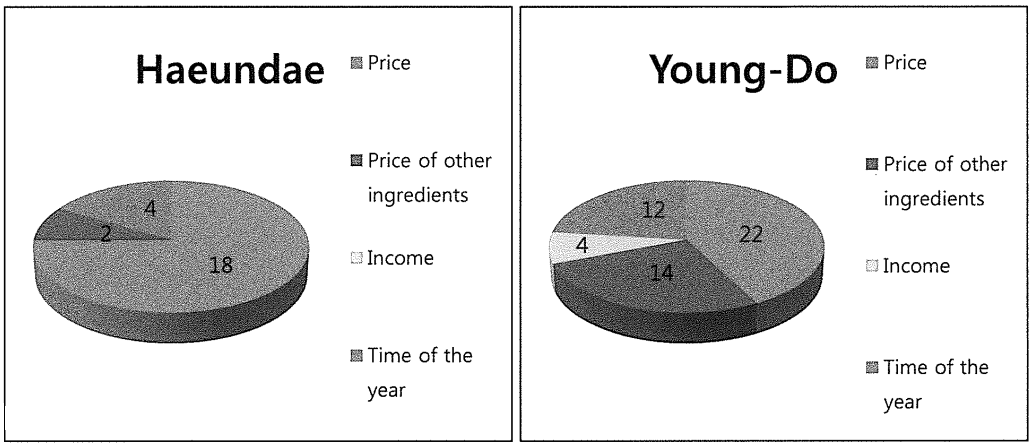
[20] Appendix 4. (pg 25).
[21] Appendix 4. (pg 25).
[22] Moffatt, Mike. "Income Elasticity of Demand." About.com. http://economics.about.com/cs/micfrohelp/a/income_elast.htm. Accessed December 23, 2013.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Further Analysis of Demand Factors

In the survey, a direct question was asked on which factors of demand most affect their consumption of cabbage. The survey results for the localities were as shown below.



The results showed that price is the factor the consumers consider most in both the localities. This result was then compared against the various elasticity values. The table below shows the price, cross and income elasticities of demand for the two localities.

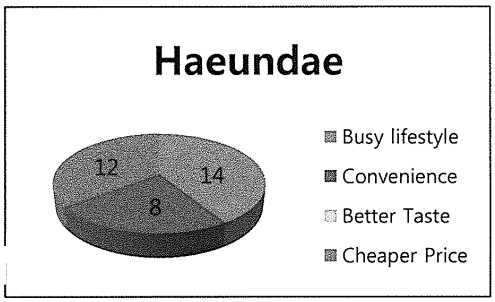
	Haeundae	**Young-Do**
Price Elasticity of Demand (PED)	0.26	0.10
Cross Elasticity of Demand (XED)	0.54	1.72
Income Elasticity of Demand (YED)	0.64	0.92

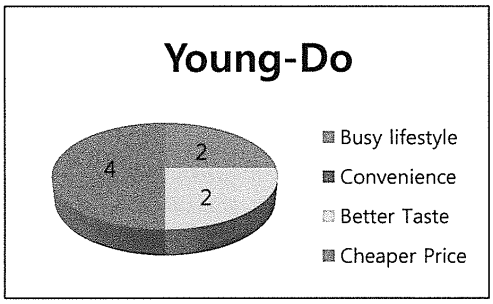
Just by looking at the values alone, it could be seen that the PED values for both the localities were low as compared to the XED and YED values. This shows how the consumers in both localities are actually not responsive to the change in price of cabbage and hence not changing their consumption significantly with a change in price. However, the survey result above showed otherwise. This could be due to the limited scope of the research on how the PED values were calculated based only on the increase in the price of cabbages. Hence, it is possible that the consumers are not responsive to an increase in price but are more responsive to a decrease in the price of cabbages.

When the PED and XED values are compared, it can be seen that the locality with a higher XED value has a lower PED value, vice versa. This shows how if a consumer is less responsive to a change in the price of cabbage, it is more likely for them to switch over to the substitute good. This pattern in the two localities is interesting as it is conceptually more likely for a consumer to switch over to a substitute if he is more responsive to the change in price of the good, hence a positive relationship between the XED and PED values. However, in this research, cabbage was investigated as an ingredient of Kimchi, a traditional Korean food rather than an individual good. Therefore, the strong culture behind Kimchi could have influenced the consumption of cabbages. This can be related to the cultural aspect of how the older generation tends to keep to the tradition of domestic Kimchi making

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

and accompanying most of their meals with Kimchi. Such consumers would be less responsive to the change in the price of cabbage, as it would be of greater importance to keep to the tradition. Therefore, this shows how culture can be a significant factor that affects the demand for cabbage and hence explaining the lower PED value in Young-Do where price does not significantly affect the demand for cabbage in the background of strong tradition. However, the XED value for Young-Do is high and this shows how the "already-made" Kimchi is a strong substitute for cabbage in this locality. This can be related to the lower average income of the population of Young-Do where they can be bound by financial limits in trying to keep the tradition as evident from the higher YED value of Young-Do. Therefore, since Kimchi is a strong culture for them, they might resort to the "already-made" Kimchi instead of reducing their consumption of Kimchi entirely, and hence resulting in a higher XED value. This is otherwise in Haeundae, where they are less affected by this cultural factor and thus a possibility of them completely moving away from the consumption of Kimchi, to another food item. The effect of different lifestyle and culture in the two localities could also be seen through the survey results on the reasons for their choice of consumption of the "already-made" Kimchi.





In Haeundae, majority chose the "already-made" Kimchi due to busy lifestyle and convenience which shows that they take into deeper consideration availability of resources such as time and the opportunity cost of making Kimchi at home. Whereas in Young-Do, majority put their main reason as price which shows that they are trying to keep to the tradition and is hence considering the financial aspects in keeping to the tradition.

Another interesting aspect is that it was found that in the both localities, a significant fraction of the surveyees chose "cheaper price" as their reason for their consumption of the "already-made" Kimchi. However, from the background research, it has been discovered that in fact, the "already-made" Kimchi is more expensive on the market. This shows how the consumers do take into consideration the cost of time and effort of making Kimchi domestically. Also, it can be due to the fact that consumers might purchase the "already-made" Kimchi in small quantities as it is readily available in the market anytime. This is in contrast to those making Kimchi at home where they would purchase in large amounts at one time as they would make enough to last them for a longer period of time as naturally the supply of cabbage would fall during winter due to weather circumstances. This shows how when a consumer spreads out his consumption over a long period of time, the cost of his consumption can be perceived as "cheaper".

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

All in all, the degree of significance of each of the demand factors in the two localities is compared in the following table.

Haeundae	Demand Factor	Young-Do
Significant	PRICE	Significant
Significant	SUBSTITUTE	**Significant**
Significant	INCOME	**Significant**
Significant	TRADITION/CULTURE	**Significant**
Significant	LIFESTYLE	Significant

From the findings in this research, the demand factors that affect the demand for cabbage in the two localities have been found and have been compared and contrasted with each other. The significance of this result is that it shows how qualitative factors such as culture and lifestyle can have a considerable impact on the demand for cabbage and hence affecting the quantitative factor in consequence. This method of comparing of the demand in the two localities can be useful to the suppliers of cabbage as it reflects the characteristics of the overall demand within a locality. This can help the suppliers vary the quantity or price of cabbage by locality, in the interest of maximizing profit or revenue.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Conclusion

In conclusion, the research has managed to find out the various factors of demand that affect the demand for cabbage in the two different localities in Busan, South Korea, Haeundae and Young-Do. The significance of each factor of demand was measured in both the localities using economic concepts such as the elasticities of demand and have been compared with one other in this research. It was found out that price and lifestyle had a greater impact on the demand for cabbage in Haeundae, a locality with a higher percentage of the younger generation, higher average income and better infrastructure. On the other hand, substitutes("already-made" Kimchi), changes in income and culture had a greater influence on the demand for cabbage in Young-do, a locality of a lower percentage of the younger generation and lower average income. The research also found out how these different social aspects do or do not affect the demand for cabbage in the two localities. It aimed to determine the significance of differing income levels in the two localitites in affecting the demand factors, but it was found that the different lifestyle and culture in the two localities was the key factor that explained the varying significance level of demand factors between the two localities. This research has therefore successfully answered the research question in finding out the different factors of demand that affect the demand for cabbage in the two localities and finding out the variance of these factors from the two localities.

However, this research is limited as cabbage was considered more as an ingredient for Kimchi and hence did not take into consideration the consumption of cabbage in the two localities apart from that used to make Kimchi. Also, the research placed focus on a specific time period and hence can be limited in finding out the overall significance of the demand factors in the market for cabbage. Therefore, the research is limited in looking into the overall demand for cabbage in the market of the two localities.

Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

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Reasearch Question: What are the factors that affect the consumers' demand for cabbage in two different localities in Busan, South Korea: Haeundae and Young-Do, and how do they vary from each locality?

Images

"김치의 장점과 맛있는 김치를 만드는 방법." Accessed November 12, 2013. http%3A%2F%2Funtrendoid.net%2F63.

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Documents

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Appendix

Appendix 1: Population by age in Haeundae & Young-Do

Haeundae

행정기관	구분	2013년11월											
		총인구수	0-9세	10-19세	20-29세	30-39세	40-49세	50-59세	60-69세	70-79세	80-89세	90-99세	100세이상
해운대구(+)	계 Total	426,072	35,700	54,840	52,397	61,659	77,564	72,062	39,685	23,882	7,333	837	113
	남 Male	207,681	18,389	28,901	27,342	29,433	37,095	35,262	18,899	9,932	2,190	215	23
	여 Female	218,391	17,311	25,939	25,055	32,226	40,469	36,800	20,786	13,950	5,143	622	90

Young-Do

행정기관	구분	2013년11월											
		총인구수	0-9세	10-19세	20-29세	30-39세	40-49세	50-59세	60-69세	70-79세	80-89세	90-99세	100세이상
영도구(+)	계 Total	136,235	7,822	13,134	16,141	17,661	20,719	26,067	18,503	12,281	3,363	454	90
	남 Male	67,848	3,982	6,859	8,844	9,444	10,837	12,882	8,737	5,201	929	112	21
	여 Female	68,387	3,840	6,275	7,297	8,217	9,882	13,185	9,766	7,080	2,434	342	69

Statistics from: http://rcps.egov.go.kr:8081/ageStat.do?command=month

Appendix 2: Income Statistics of Young-Do

3) 소득의 월평균 금액

응답자의 45.0%는 100만 원 미만의 월평균 소득을 받고 일을 하고 있으며, 200만 원 이상의 고소득자는 15.0%에 불과했다.

[표 5-43] 소득의 월평균 금액

구 분	비율(%)
50만원 미만	15.0
50~100만원 미만	30.0
100~150만원 미만	12.5
150~200만원 미만	15.0
200~300만원 미만	15.0
기타	12.5
합계	100.0

Translation:

[Table 5-43] Average monthly income

Category	%
Below 500,000Won	15.0
500,000~1,000,000Won	30.0
1,000,000~1,500,000Won	12.5
1,500,000~2,000,000Won	15.0
2,000,000~3,000,000Won	15.0
Etcetera	12.5
Total	100

Statistics from: 영도구 제 2 기 지역사회복지계획 (2011-2014 년: 4 개년) [translated: Young-do 2nd Community Welfare planning (2011-2014: 4 yrs)]. Page 115.

Appendix 3: Survey form sample

SURVEY PART I

1) 김치를 집에서 직접 만들어 먹나요 아니면 사서 먹나요?

Do you make Kimchi at home or buy the "already made" Kimchi?

a. 만들어 먹는다 at home (3~8번 문제를 답하세요)
b. 사서 먹는다 "already made" (2번 문제를 답하세요)
c. 둘 다 both (2~8번 문제를 답하세요)

2) 이미 만들어진 김치를 사먹는 이유가 무엇인가요?

What is the reason for buying "already made" Kimchi?

a. 바빠서 busy lifestyle
b. 편해서 for convenience
c. 맛이 더 좋아서 better taste
d. 가격이 더 저렴해서 cheaper price

3) 김장을 할 때 보통 몇 포기의 배추를 사용하나요?

How many cabbages do you use to make Kimchi?

a. 3개 Around 3
b. 6개 Around 6
c. 10개 Around 10
d. >10 (포기 수 number:___)

4) 요번 해에 연봉/월급에 인상 또는 인하가 있었나요?

Was there an increase/decrease in your income this year?

a. 인상 increase
b. 인하 decrease
c. 없음 no increase/decrease

5) 얼마나 인상/인하 되었나요?

By how much did your income increase/decrease?

a. 5% 미만 below 5%
b. 8% 정도 about 8%
c. 10% 이상 above 10%

6) 연봉/월급에 인상/인하에 의하여 김장배추 구입 양을 바꿨나요?

With the increase/decrease in income, how did you change your purchase of cabbages?

a. 양을 늘렸다 increased purchases
b. 양을 줄였다 decreased purchases
c. 바꾸지 않았다 no change

7) 어느 정도로 양을 줄였나요/늘렸나요?

By how much did you change the number of cabbages purchased?

a. 3개 Around 3
b. 6개 Around 6
c. 10개 Around 10
d. >10 (포기 수 number:___)

8) 김장배추 구입 양을 정할때 가장 중요시 하는 이유가 무엇이나요?

What is the most important factor you consider when you decide the quantity of cabbage bought?

a. 가격 Price
b. 다른 재료의 가격 Prices of other ingredients for Kimchi
c. 수입 (연봉/월급) Income
d. 김장시기 The time of the year

SURVEY PART II

배추가격이 수요증가로 인하여 올랐습니다. 요변 김장에 몇 포기의 배추를 사용하였나요?

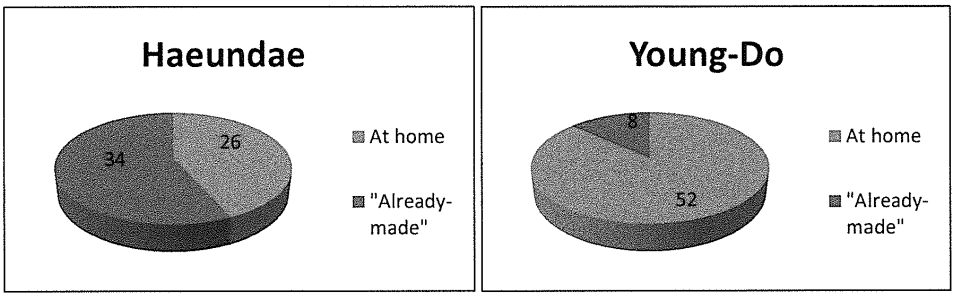
There was a price increase in cabbages as compared to last year. How many cabbages did you use during this "KimJang" season?

a. 3개 Around 3
b. 6개 Around 6
c. 10개 Around 10
d. >10 (포기 수 number:___)
e. 김치를 사서 먹었다 switched to the "already made Kimchi"

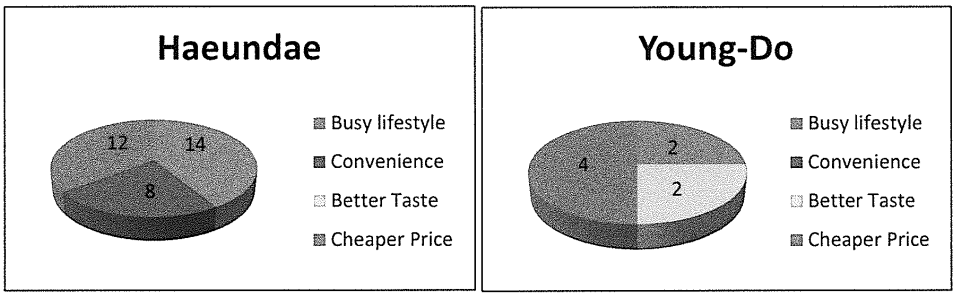
Appendix 4: Survey Results

SURVEY PART I

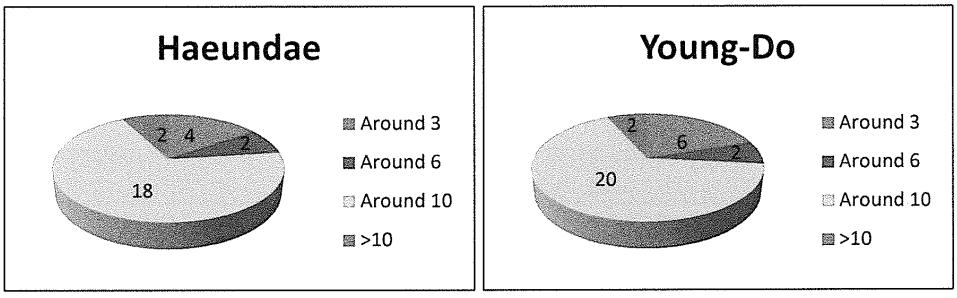
1) **Do you make Kimchi at home, or buy the "already-made" Kimchi?**



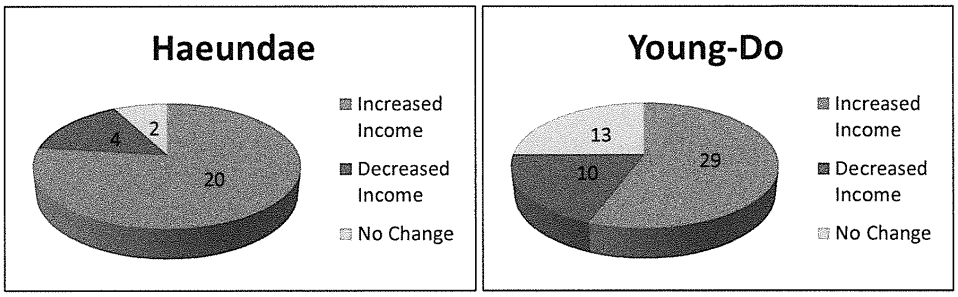
2) **What is the reason for buying the "already-made" Kimchi?**



3) **How many cabbages do you use to make Kimchi?**

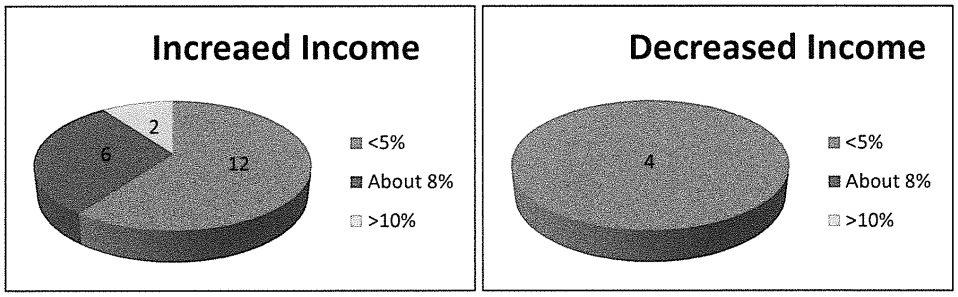


4) **Was there an increase/decrease in your income this year?**

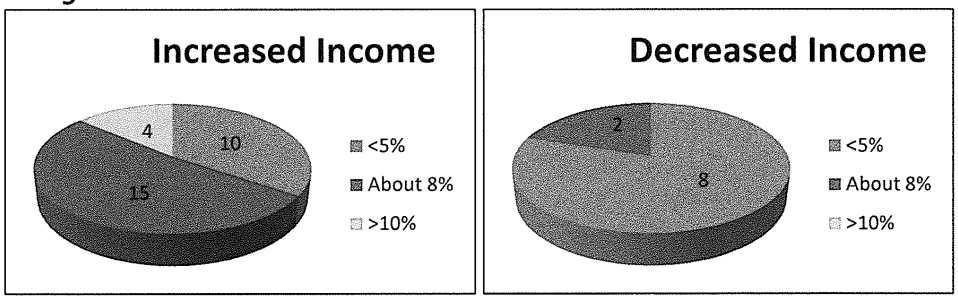


5) **By how much did your income increase/decrease?**

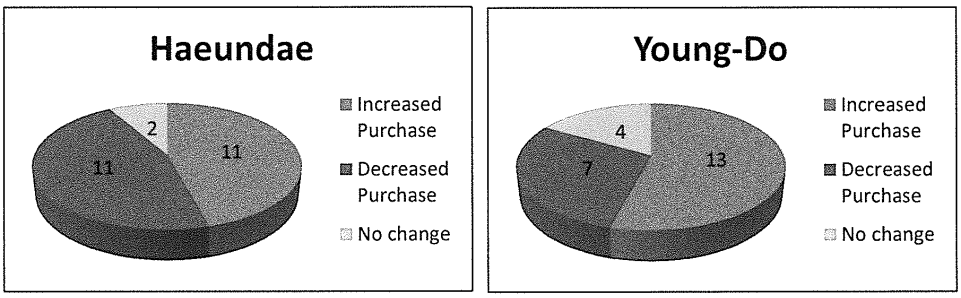
Haeundae



Young-Do

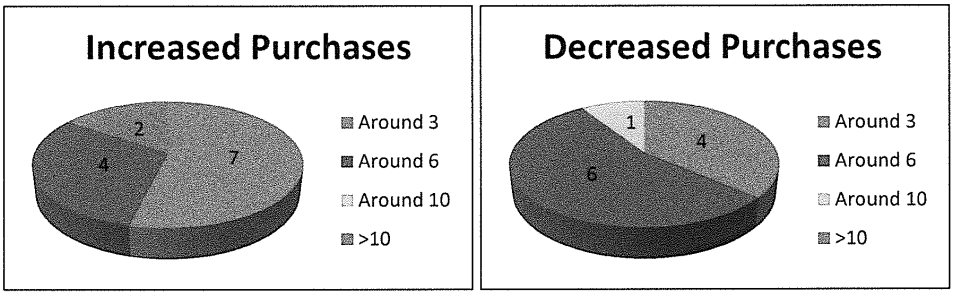


6) **With the increase/decrease in income how did you change your consumption of cabbages?**



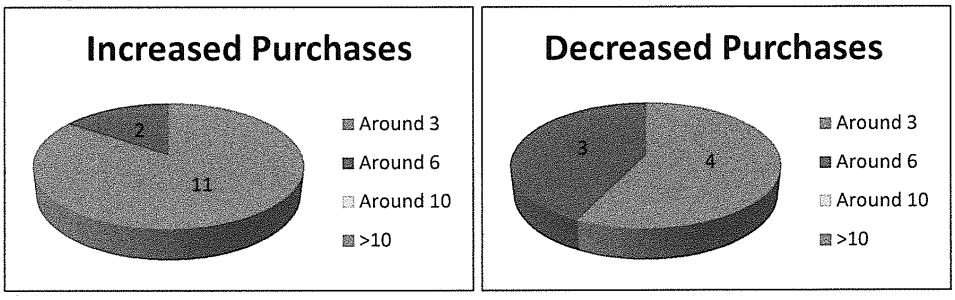
7) **By how much did you change the number of cabbages purchased?**

Haeundae



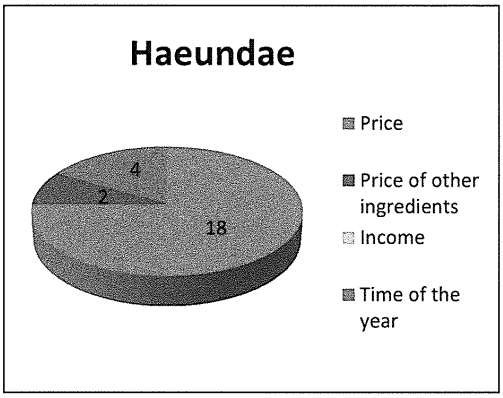
**no change: 4*

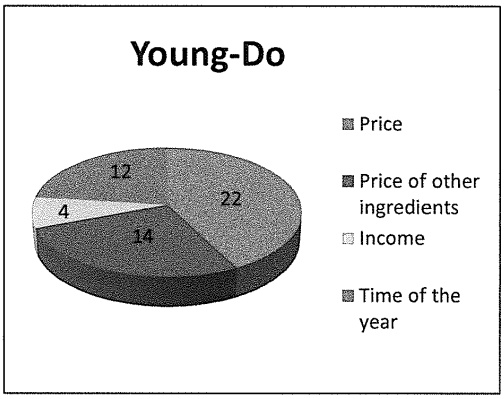
Young-Do



**no change: 32*

8) What is the most important factor you consider when deciding the quantity of cabbage bought?





SURVEY PART II

Recently, there was a price increase in cabbages due to increase in demand. How many cabbages you use during this "Kim Jang" season?