

SEGMENTATION OF CONSUMERS IN JAKARTA RELATED TO THE FOOD SAFETY ISSUE

Renita Sagara¹

BINUS INTERNATIONAL, BINUS UNIVERSITY

Dahlia Darmayanti²

ASIA Cellular Satellite

ABSTRACT

The objectives of this thesis are to (1) identify the most significant factors that affect consumers' attitudes toward food safety issue in Jakarta, (2) segment the market based on the factors identified, and (3) characterize each segment based on their demographic factors.

300 questionnaires regarding the food safety issue were distributed to 5 major regions in Jakarta. Firstly, frequency analysis was used to profile the respondents, then the data gathered was subjected to factor analysis to discover the most significant factors from the responses. After that, descriptive analysis was used to identify the means and standard deviation to further be used in identifying cluster characteristics. Next, cluster analysis was used to cluster/segment the respondents based on the factor analysis. Finally, cross tabulation was used to identify the demographic factors that dominate each cluster.

It was found that consumer food safety attitudes are based on 6 significant factors, which are trust towards the actors in the food supply chain; concern about the content of the food eaten; acceptance of the number of food-borne disease outbreaks and people falling ill and/or dying due to the outbreaks; regulations of the government; concern about the safety of the foods bought from stores and restaurants, and preference for the right to buy foods no matter how safe or unsafe they might be. From the 6 factors, 4 segments of consumers were identified, namely, "Independent", "Trusting", "Apprehensive", and "Nonchalant".

It is concluded that there is a relationship between education level and trust level, and among income levels, age and concern levels. Highly educated people most definitely have a favourable level of trust, while less educated people do not. Also, older people with lower incomes are most definitely unconcerned about the food they eat, while younger people with higher incomes are.

Keywords: food safety, consumers, market segmentation, attitudes, consumer behaviour.

INTRODUCTION

Any creatures, including humans, require food in order to live. People, animals, and even plants cannot live without food. Food gives nutrition and energy that are required for human health, and even gives pleasure to the consumers. In the past, foods were 100% organic and

^{1,2} Renita Sagara is a BINUS INTERNATIONAL alumni (e-mail: sushimaru_ren@yahoo.com), Dahlia Darmayanti is Business Development Manager of ASIA Cellular Satellite (email: lili@aces.co.id).

processed with primitive cooking tools and simple cooking methods. For example, people used to preserve their foods by salting, drying, pickling, smoking, etc. Nowadays however, people have become more demanding about the foods they eat. Foods need to be attractive, nutritious, and flavoursome. And thus today, the primitive cooking tools have shifted to sophisticated machines that can produce foods in different ways, more efficiently and effectively. Man made or artificial substances are used to enhance the value of the food, by, for example, extending its expiration date, making it more attractive by giving artificial colour and aroma, and even creating different sensations such as soda and ice cream.

These developments in food production however, come with costs. Many times, these substances used together with procedures in the food production might risk the food quality and safety. Examples of substances and procedures that might endanger the food quality and safety are: (1) the use of melanin in milk products which can cause dysfunctional metabolisms, acute digestive problems, internal organ damage, and problems in the immune system (<http://news.uns.ac.id/2009/03/11/bahaya-melanin/>); (2) the use of pesticides to kill pests that can cause a range of illnesses from a mere headache and nausea to cancer and neurological disorders (http://www.cseindia.org/html/lab/health_pest.htm); and (3) the use of charcoal in the cooking process which would increase the chance of colorectal, pancreatic and breast cancer.

Food safety issues have become a major concern in many countries including Indonesia Based on the report from 'Yayasan Lembaga Konsumen Indonesia', during 2008 there were 49 cases of food poisoning in which hundreds of people required medical attention and 14 people died (<http://www.kapanlagi.com/h/0000246160.html>). This is and should be an important issue that must be solved by all Indonesians. However, there have only been a few research projects regarding this issue in this country. Therefore, this research was conducted to uncover the new segments of the market regarding the food safety issue and to uncover the characteristics of each segment. Different people with different backgrounds and consumer behaviours might require different information and communication strategies. In this study, segmentation helped to group people with similar food safety attitudes into one, thus making it easier for actors in the food supply chain to adjust or take the necessary actions, required for each segment. It is expected that the government will be able to formulate the best and most suitable information (e.g. risk information) and communication (e.g. education programs) based on the specific needs and desires of each consumer segment, so that the knowledge that society has regarding food safety issues increases and consumption behaviour is changed into a more positive one, resulting in a decrease in the occurrence of foodborne disease outbreaks. A reference for this study is a similar study (journal) that was made in the U.S. entitled '*Segmentation of US Consumers Based on Food Safety Attitudes*' by Jean Kennedy, Michelle Worosz, Ewen C. Todd and Maria K. Lapinski.

THEORETICAL FOUNDATION

There are basically 2 theories that relate to this topic directly. They are 'Consumer Behaviour', and 'Market Segmentation'.

Consumer Behaviour

Hawkins, Mothersbaugh, and Best (2007: 6) stated that:

The field of consumer behaviour is the study of individuals, groups, or organizations and the processes they use to select, secure, use and dispose of products, services,

experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society.

Every marketer needs to understand the study of consumer behaviour in order to understand the buying patterns of people from any particular place, and so eventually become more accurate in targeting potential consumers for the intended products or services. What people need to know is that individuals have different buying patterns, no matter how similar they may seem. Diverse buying patterns might result from internal factors that come within the individual him or herself, and also from external factors surrounding the individual. The buying pattern may be influenced by who or what the individual is, how the individual lives, with whom the individual lives, where the individual lives, and so on. And thus, a marketing strategy for the same product or service that works for an individual might not have the same response to other people. Different ways to market products or services are necessary. And therefore in this case, consumer behaviour plays a very important role. It would help marketers determine what underlying factors are affecting consumers' buying patterns, who the potential buyers for the products or services are, and decide on the best marketing mixes and strategies for the targeted consumers.

Factors Influencing Consumer Behaviour

According to Hawkins, Mothersbaugh, and Best (2007), consumer behaviour is influenced by both external influences and internal influences. External influences are influences coming from outside the person; and consist of culture, subculture, demographics, social status, reference groups, family, and marketing activities. Internal influences are those influences coming from within the person him or herself; such as perception, learning, memory, motives, personality, emotions, and attitudes.

Market Segmentation

Market segmentation is basically a marketer's effort to divide the market into groups of potential customers with similar tendencies, in order to ease the marketing process effectively and efficiently. By segmenting the market, marketers select the best segments to enter, evaluate the segments, and formulate the best and most accurate marketing mix for the segments. That way, marketers do not have to allocate huge sums of money to market the products or services to everyone who might not even be that interested in the products or services. However, marketers would only need to market the products or services to the selected segments, and gain higher opportunities of awareness from the segments.

Marketers commonly use one or more of these types of segmentation:

- Geographic
- Demographic
- Psychological
- Psychographic
- Socio-cultural
- Use-related
- Usage-situation
- Benefit

DATA AND RESEARCH METHODOLOGY

The objective of this study is to segment the consumers in Jakarta based on food safety issues, by firstly identifying the significant factors influencing their behaviour towards food safety. Later, the segments are characterized according to their demographic factors.

Questionnaires consisting of questions related to food safety issues were distributed to 300 respondents above 20 years old in 5 major regions in Jakarta. E-mail questionnaires were also used to save time and energy. Data related to this research were also gathered from books and journals, and the Internet.

The data analysis methods for this research are:

1. Frequency analysis
This was used to identify the demographic profiles of the respondents.
2. Factor analysis
Factor analysis was used to uncover the dimensions of food safety attitudes or the most significant factors influencing food safety attitudes of consumers in Jakarta.
 - The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was used to indicate whether factor analysis can be used to process the data and whether the data can be grouped into a smaller set of factors. If the value of KMO is less than 0.6, then factor analysis is not appropriate to be used for this study. Bartlett's Test was also used to determine the appropriateness of the use of factor analysis. Bartlett's Test of Sphericity is significant at $p < 0.05$.
 - Extraction with a principal components method, and eigenvalues over 1 were used to identify the factors that best represent the interrelations among the variables.
 - Varimax rotation and Kaiser Normalization were used to identify patterns of factor loadings, and to minimize the variables on each factor, with a minimum factor loading of 0.6. Factor loadings of 0.6 or higher were considered appropriate for this study.
 - Cronbach's alpha was used to identify the reliability of each factor. A minimum alpha coefficient of 0.6 was used.
3. Descriptive analysis
Descriptive analysis of the factors identified from the factor analysis was used to identify the means and standard deviations of each factor. The means and standard deviation were important as they would be used in understanding the characteristics of each cluster. Also, descriptive analysis formed new variables from the standardized values.
4. Hierarchical cluster analysis
Hierarchical cluster analysis was used to identify the appropriate amount of clusters to be formed, by looking at the dendrogram.
5. K-Means Cluster
K-means cluster was used to identify the final cluster centres which would be used to analyze the characteristics of each cluster.
6. Crosstabs
Crosstabs were used to identify the socio-demographic characteristics each cluster had.

FINDINGS AND DISCUSSION

300 questionnaires, including e-mail questionnaires, were distributed to 5 major regions in Jakarta, which were North Jakarta, South Jakarta, Central Jakarta, West Jakarta, and East

Jakarta. 280 among the 300 questionnaires gathered, were considered valid and could be used to be analyzed in the SPSS.

Descriptive Analysis

This is done to identify the demographic profiles of the respondents.

Table 1. Respondent's Profile

| | | | % |
|------------------------------------|------------------------------------|-----|------|
| Household Member with Food Allergy | Yes | 125 | 44.6 |
| | No | 155 | 55.4 |
| Children < 6 years old | Yes | 70 | 25 |
| | No | 210 | 75 |
| People > 65 years old | Yes | 64 | 22.9 |
| | No | 216 | 77.1 |
| Last Education | < High school | 11 | 3.9 |
| | High School | 131 | 46.8 |
| | Diploma (D1, D2, D3) | 31 | 11.1 |
| | Sarjana (S1, S2, S3) | 107 | 38.2 |
| Marital Status | Married | 79 | 28.2 |
| | Divorced | 9 | 3.2 |
| | Widowed due to the death of spouse | 8 | 2.9 |
| | Single | 184 | 65.7 |
| Net Income per Month | < IDR 2,000,000 | 130 | 46.4 |
| | IDR 2,000,000 – 4,999,999 | 66 | 23.6 |
| | IDR 5,000,000 – 7,999,999 | 39 | 13.9 |
| | IDR 8,000,000 – 9,999,999 | 20 | 7.1 |
| | ≥ IDR 10,000,000 | 16 | 5.7 |
| | unanswered | 9 | 3.2 |
| Gender | Male | 144 | 51.4 |
| | Female | 136 | 48.6 |
| Age Category | 21 – 25 years old | 164 | 58.6 |
| | 26 – 30 years old | 32 | 11.4 |
| | 31 – 40 years old | 34 | 12.1 |
| | 41 – 50 years old | 23 | 8.2 |
| | 51 – 60 years old | 23 | 8.2 |
| | 61 – 65 years old | 2 | 0.7 |
| | ≥ 66 years old | 2 | 0.7 |
| Home Region | East Jakarta | 46 | 16.4 |
| | South Jakarta | 76 | 27.1 |
| | West Jakarta | 41 | 14.6 |
| | North Jakarta | 76 | 27.1 |
| | Central Jakarta | 41 | 14.6 |
| Place of Origin | Java | 193 | 68.9 |
| | Sumatra | 37 | 13.2 |
| | Kalimantan | 21 | 7.5 |
| | Sulawesi | 9 | 3.2 |
| | Others | 20 | 7.1 |

Factor Analysis

Firstly, factor analysis was used to uncover the dimensions or the most significant factors influencing food safety attitudes of consumers in Jakarta. In this analysis, questions that were

related to respondents' attitudes toward food safety issues were analyzed. Based on the analysis, there were 6 significant factors:

Table 2. Factors influencing consumer food safety attitudes

| Variables used to construct factors | Factor loading | Variance explained (%) | Cronbach alpha |
|---|--|------------------------|----------------|
| <i>Factor 1. Trust</i> Trust: Federal Government to ensure food is safe Trust: processors and manufacturers to ensure food is safe Trust: farmers to ensure food is safe Trust: grocery stores to ensure food is safe Trust: restaurants to ensure food is safe Trust: average Indonesian to ensure food is safe | 0.781 0.796 0.809 0.830 0.766 0.780 | 18.433 | 0.887 |
| <i>Factor 2. Concern about the content of the food</i> Are you concerned about the safety of the food that you eat? Are you concerned about causes of food-borne illness, such as <i>Salmonella</i> , <i>E. coli</i> or <i>Listeria</i> , in the foods you eat? Are you concerned about antibiotics or hormones in the foods you eat? Are you concerned about pesticides or chemical residues on the fruits and vegetables you eat? Are you concerned about additives or preservatives in the foods you eat? | 0.588 0.797 0.762 0.740 0.704 | 13.039 | 0.781 |
| <i>Factor 3. Acceptance of the number of food-borne disease outbreaks, people suffering from food-borne diseases, and people dying from food-borne illnesses</i> Badan Pengawas Obat dan Makanan (BPOM) reported that in 2004, there were 153 food-borne disease outbreaks. BPOM reported that in 2004, there were 7,347 people suffering from food-borne disease. BPOM reported that in 2004, among those who suffered from food-borne disease, < 1% died. | 0.868 0.903 0.810 | 10.929 | 0.845 |
| <i>Factor 4. Desire for a high level of regulation</i> The government should ban the sale of foods that are less safe even if they are more nutritious or healthy The government should ban the sale of foods that are less safe even if they are more tasty or flavourful The government should ban the sale of foods that are less safe even if they are more convenient to prepare and cook | 0.721 0.837 0.789 | 9.269 | 0.706 |
| <i>Factor 5. Concern about the safety of food bought</i> The last time you were shopping for food, did you think about whether the food you were buying was safe to eat? The last time you ate at a restaurant, did you think about whether the food you were buying was safe to eat? | 0.871 0.842 | 7.801 | 0.759 |
| <i>Factor 6. Preference for the right to purchase safe or unsafe food</i> Anyone should have the option of buying any foods they want regardless of how safe or unsafe they may be. If labels contained safety information, would you strongly agree, agree, be undecided, or strongly disagree with the statement: anyone should have the option of buying any foods they want regardless of how safe or unsafe they may be. | 0.850 0.834 | 7.191 | 0.646 |
| <i>Total variance explained by the factors</i> | | 66.662 | |
| Notes: All have eigenvalues greater than 1; KMO= 0.770; Bartlett's test of sphericity 2161.203, df= 210, Sig. 0.000 | | | |

The KMO value was 0.770 and Bartlett's Test of Sphericity was 0.000. For a factor analysis to be considered appropriate, the KMO must range from 0 to 1, with the suggested minimum value of 0.6, and the Bartlett's Test of Sphericity must be significant, at $p < 0.05$. Thus factor analysis was appropriate in analyzing the data.

There were initially a total of 21 variables used in the factor analysis. However, 1 variable in factor 2 had a factor loading less than 0.6 thus was not retained for further analysis (concern of the safety of the food eaten = 0.588). These 20 variables were later grouped to form 6 factors, with the accumulated variance of 66.66%. As for the reliability analysis, all factors had a Cronbach alpha higher than 0.6. Thus, the data were considered highly reliable.

Descriptive Analysis

After the factors of food safety attitudes were identified, descriptive analysis was used to identify the means and standard deviations of each factor. The mean values and standard deviations of each factor were necessary to read the characteristics of the clusters. Descriptive analysis also created new standardized variables, also called z scores, which would be used later for cluster analysis.

Table 3. Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--------------------|-----|---------|---------|-------|----------------|
| Trust | 280 | 18 | 90 | 58.20 | 11.360 |
| Content | 280 | 4 | 8 | 5.21 | 1.433 |
| Acceptance | 280 | 3 | 15 | 9.66 | 2.883 |
| Regulation | 280 | 3 | 6 | 3.50 | 0.884 |
| Bought | 280 | 2 | 4 | 2.65 | 0.842 |
| Preference | 280 | 2 | 10 | 6.47 | 2.079 |
| Valid N (listwise) | 280 | | | | |

Hierarchical Cluster Analysis

Hierarchical cluster analysis was used after the descriptive analysis. This was used to identify the appropriate number of clusters to be formed. The data to be analyzed here were the z-scored data. Based on the dendrogram shown, there were 4 appropriate clusters identified.

Table 4. Cluster Analysis: Mean Value, Final Cluster Centres, Standard Deviation

| | Mean Value + | Final cluster centres * | | | | Standard Deviation |
|----------|--------------|-------------------------|----------|----------|----------|--------------------|
| | | 1 (36) | 2 (65) | 3 (114) | 4 (65) | |
| Factor 1 | 58.20 | -0.17166 | -0.51193 | 0.28510 | 0.10699 | 11.360 |
| Factor 2 | 5.21 | 0.49279 | 0.22879 | -0.55123 | 0.46505 | 1.433 |
| Factor 3 | 9.66 | 0.03097 | -1.02967 | 0.58323 | -0.01039 | 2.883 |
| Factor 4 | 3.50 | 2.26258 | -0.35679 | -0.35725 | -0.26977 | 0.884 |
| Factor 5 | 2.65 | 0.74577 | -0.57113 | -0.64712 | 1.29304 | 0.842 |
| Factor 6 | 6.47 | -0.13152 | -0.61729 | 0.41211 | -0.03264 | 2.079 |

After the numbers of appropriate clusters were identified, the clusters were analyzed further by K-means cluster . The final cluster centres of each factor were also discovered. Then, from the data gathered, a formulation was required to identify the clusters.

*The mean value of factor (n) + final cluster centres of factor (n) * standard deviation of factor (n)*

After the results were discovered, comparisons between the results of each cluster in the factor and the mean value of the factor were analyzed. The results were as followed:

Table 5. Cluster Analysis: Results

| | Mean Value | Cluster | | | |
|----------|------------|---------|---------|---------|---------|
| | | 1 | 2 | 3 | 4 |
| Factor 1 | 58.20 | 56.2500 | 52.3846 | 61.4386 | 59.4154 |
| Factor 2 | 5.21 | 5.9167 | 5.5385 | 4.4211 | 5.8769 |
| Factor 3 | 9.66 | 9.7500 | 6.6923 | 11.3421 | 9.6308 |
| Factor 4 | 3.50 | 5.5000 | 3.1846 | 3.1842 | 3.2615 |
| Factor 5 | 2.65 | 3.2778 | 2.1692 | 2.1053 | 3.7385 |
| Factor 6 | 6.47 | 6.1944 | 5.1846 | 7.3246 | 6.4000 |

1. Cluster 1

Cluster 1 consisted of people who were least likely to be concerned about the content of the food and agree to the prohibition of the sale of unsafe food. They tended to trust the actors in the food supply chain and preferred the freedom of purchasing food no matter how unsafe it might be. They, however, did not accept the number of food-borne disease outbreaks, people suffering from food-borne diseases, and people dying from food-borne illnesses. They were also unconcerned about the food bought from restaurants or the markets. This cluster had the lowest number of people at 36. This cluster had a tendency to be unconcerned about food safety, and were thus termed “Independent” consumers.

2. Cluster 2

Cluster 2 consisted of people who were most likely to trust the actors in the food supply chain, accept the number of food-borne disease outbreaks, people suffering from food-borne diseases, and people dying from food-borne illnesses, and preferred the freedom of purchasing food no matter how unsafe it might be. They were not concerned about the content of the food eaten, however they were concerned about the safety of the food bought. They agreed to the regulation of banning any unsafe foods. This cluster had 65 people. The cluster is thus labelled “Trusting” consumers.

3. Cluster 3

Cluster 3 consisted of people who were most likely to be concerned about the content of the food eaten and the safety of the food bought from restaurants, markets, and any other sellers. They mostly agreed with the regulation that prohibited the sale of any unsafe food. However, the people in this cluster were least likely to trust the actors in the food supply chain, accept the number of food-borne disease outbreaks, people suffering from food-borne diseases, and people dying from food-borne illnesses, and preferred the freedom of

purchasing food no matter how unsafe it might be. This cluster consisted of 114 people, and was the largest cluster. This cluster is termed “Apprehensive” consumers.

4. Cluster 4

Cluster 4 consisted of people who were least likely to be concerned about safety of the food they bought from restaurants, markets, and any other sellers. They did not trust the actors in the food supply chain and were very unconcerned about the content of the food eaten. They accepted the number of food-borne disease outbreaks, people suffering from food-borne diseases, and people dying from food-borne illnesses, and agreed with the regulation to prohibit the sale of any unsafe foods. And many of them preferred the freedom of purchasing food no matter how unsafe it might be although there were also a big number who disagreed with the statement. They also tended to agree with the freedom of purchasing foods no matter how unsafe they might be, however there was also a portion of them who disagreed with the freedom. The cluster was made up of 65 people. This cluster is termed “Nonchalant”.

Cross-tabulation

After the number of the clusters was identified and the attitudes of each cluster toward food safety issues were discovered, the demographic factors of each cluster were identified by cross-tabulation. Here are the results of the dominant demography each cluster had:

1. Independent consumers (cluster 1) are mostly male, and have no household member with a food allergy, no children under the age of 6 years old, and no people above 65 years old. The people in this cluster also tend to have a higher level of education compared to the people in clusters 3 and 4, and a lower income compared to those in clusters 2 and 3. Most of them are single unmarried people, followed by married people. Based on the average, the cluster consists of people who are relatively older than other clusters. They mostly live in South, North, and Central Jakarta and mostly come from Java Island, followed by Sumatra.
2. Trusting consumers (cluster 2) are similar to those in cluster 1, consisting of males, people who have no household member with a food allergy, no children under the age of 6 years old, and have no people above 65 years old. People in this cluster tend to have the highest educational background and income compared to other clusters. This cluster mostly consists of single people, followed by married people. Compared to other clusters, this cluster tends to be the youngest. This cluster mostly consists of those living in North Jakarta, followed by South Jakarta, and then East Jakarta. The people mostly come from Java Island, followed by Sumatra and other small regions and cities.
3. Apprehensive consumers (cluster 3) mostly consist of female, and are people with no household member having a food allergy, no children under the age of 6 and no people above 65 years old. They have a lower educational background compared to clusters 1 and 2, but higher income compared to clusters 1 and 4. Similar to other clusters, this cluster mostly comprises of single, followed by married people. They tend to be younger than people in clusters 1 and 4. People in this cluster mostly live in South Jakarta, followed by North Jakarta. Finally, they mostly come from Java Island, followed by Sumatra.
4. Nonchalant consumers (cluster 4) are similar with other clusters; this cluster mostly consists of those with no household member having a food allergy, no children under the age of 6, and no people above 65 years old. This cluster is mostly comprised of females and this cluster has the lowest educational background and income of all the clusters. As well as other clusters, the people in this cluster are mostly single, followed by married

people. Compared to clusters 2 and 3, this cluster is relatively older. People in this cluster mostly live in South Jakarta, North Jakarta and Central Jakarta. Finally, this cluster mostly consists of those from Java Island, followed by Sumatra, and then Kalimantan.

CONCLUSION AND RECOMMENDATIONS

Based on this research, the consumers in Jakarta had different factors as well as segments, in terms of food safety issues. There were 6 major factors affecting consumer behaviour vis a vis food consumption in Jakarta; *'trust'*, *'concern about the content of the food'*, *'acceptance of the number of food-borne disease outbreaks, people suffering from food-borne disease, and people dying from food-borne illnesses'*, *'desire for a high level of regulation'*, *'concern about the safety of food bought'*, and *'preference for the right to purchase safe or unsafe food'*. Regarding the factors discovered, there were 4 segments or clusters of consumers in Jakarta in relation to food safety issues. Those segments are "Independent", "Trusting", "Apprehensive", and "Nonchalant" consumers.

Independent consumers are mostly unconcerned about the overall food safety and food regulations. It is not surprising to find them purchasing street foods that are not guaranteed to be safe. Also, they do not pay attention or completely ignore the regulations banning the sale of foods which might be unsafe, so it is possible for them to keep consuming, for example, milk products which contain melanin, street foods such as "cendol" with textile colouration, meatballs containing the preservative borax, etc. Thus, it is possible that some of those people are living in or below the poverty line, where the purpose of food is solely to keep their hunger at bay and keep themselves alive, even though it might be unsafe to consume.

Trusting consumers tend to be unconcerned about the content of the food but concerned about the safety of the food bought from grocery stores and restaurants. Thus it is possible that people in this cluster mostly shop at high end grocery stores (e.g. Ranch Market, Sogo Food Hall) and restaurants where the safety of the foods is more guaranteed. This statement is supported by the fact that this segment has the highest income level compared to other segments. And it is also possible that they seldom eat out at restaurants. Overall, they do not trust the safety of the food produced or processed by other people besides themselves or their household.

Apprehensive consumers consist of the most pessimistic group. Seeing from the results, it is concluded that people in this cluster are very concerned about their health, thus they are very concerned about the overall food safety and desire regulations banning the sale of foods which are likely to be unhealthy. Most definitely, this cluster consists of those living a healthy life, consuming mostly or only organic foods, although organic foods are relatively more expensive. This statement is also supported by their income, which is the second highest among all clusters.

Nonchalant consumers are people who are very unconcerned about the content and the safety of food bought, but desire regulations banning the sale of foods which are likely to be unsafe. Surely people would like to consume safe foods. But in reality, people usually buy foods without looking at the expiration date, the ingredients, etc. They do want the government to

prohibit unsafe foods from entering the market but still, there are times when these consumers buy food on the streets, consume instant food, and so on.

From the results, it has also been discovered that people who trust the actors in the food supply chain are most definitely unconcerned about the content of the food eaten and prefer the right to purchase foods no matter how unsafe they might be. People who distrust the actors in the food supply chain most definitely agree with the regulations prohibiting the sales of unsafe food. People who accept the number of food-borne disease outbreaks and the casualties caused by the outbreaks are most certainly unconcerned about the content of the food eaten, agree with the sales prohibition of unsafe foods, and desire the right to purchase safe or unsafe foods. People who are concerned with the safety of foods bought from restaurants and grocery stores most certainly agree with the regulations banning the sales of unsafe foods. On the other hand, people who are unconcerned about the food bought from restaurants and grocery stores are most definitely unconcerned with the content of the food eaten and tend to desire the freedom of buying the foods they want and need no matter how unsafe they might be. Finally, people who are unconcerned about the content of the food eaten most definitely desire the right to purchase foods, safe or unsafe.

From the socio-demographic point of view, it has also been discovered that people with a high level of education (“Independent” and “Trusting” consumers) tend to trust the actors in the food supply chain, are unconcerned about the food they eat, and desire the freedom in purchasing foods that are not guaranteed to be safe. On the other hand, people with a lower education background (“Apprehensive” and “Nonchalant” consumers) tend to distrust the actors in the food supply chain and they also agree to the policy banning the sales of foods that are likely to be unsafe. Based on their income and age, people who are older with lower income levels (“Independent” and “Nonchalant” consumers) tend to be least concerned about the overall food they eat and desire the freedom in purchasing the foods they want no matter how unsafe they might be, while people with higher levels of income and younger age (“Trusting” and “Apprehensive” consumers) are concerned about the food bought from grocery stores and restaurants and also tend to agree with the prohibition of the sales of unsafe foods.

Thus, it can be concluded that there is a relationship between education level and trust level, and among income levels, age and concern levels. People with a high level of education most definitely have a favourable level of trust, while people with a lower education do not. And older people with lower incomes are most definitely unconcerned about the food they eat, while younger people with higher incomes are concerned about the food they eat.

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