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The Consumer Preference to the Beef Product at Traditional Market in Semarang City

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Abstract

Keywords:
beef,
characteristic,
consumer,
preference

As we know, the most important human need is food. Nowadays, many people awared that food with high nutrition is one of the welfare indicators in the society. Beef is animal food commodity from livestock that has high nutritional value. The aims of this research were to analyze the characteristic and consumers' preference to the beef at traditional market in Semarang City. The researcher chose Semarang City as the research location based on purposive method. The sample was randomly chosen, of 100 respondents based on the quota sampling technique. Meanwhile, the taking sample method that used was purposive sampling method. This research used some data analysis, which were descriptive analysis, chi square analysis, crosstab analysis and conjoin analysis. Based on the research result, it conducted that most of the consumer characteristic was female, 36 – 40 years old, graduated from Senior High School, worked as housewife and have family income of > Rp. 5.000.000 per month. There was a connection between the number of family member and the number of beef purchase. The consumers more preferred bright red beef, without fat and beef cut of the part 3 (shank, rib, flank and brisket). The sequences of beef from the most important part based on Importance Values was 44,99% of fat, 28,24% of the color and 26,75% of the cut.

INTRODUCTION

The existence of traditional market is considered as a forum in a small society. This was included in the real economic strengthening, which was part of the economic empowerment strategy in the developing countries, such as Indonesia (Istifhama, n.d.). Nowadays, this real strengthening terms on economic sector is urgently needed, considering that the existence of traditional market in the society is decreasing because of the modern market or supermarket existency. In this era, people seem to be offered a modern shopping concept which considered to be more comfortable rather than the traditional market atmosphere that tend to be hot and dirty, not to mention the discount offered to some products is alluring, which made the supermarket is eminent than the traditional market. The modern market or supermarket are increasingly built in the society and seem to be rapidly growing in a short period of time. This certainly had a significant effect on the traditional market. The image of traditional market was fading day by day. The growth of the traditional market itself was keep decreasing to be less than 10% per year, in contrast to the growth of modern market that keep drastically increasing to more than 30%. In 2012, the modern market or supermarket dominated 31% of the retail market, with a very fantastic turnover, the turnover of one modern retail can reach Rp 2,5 trillion/year. Of course, this condition was very opposite if compared to the traditional market turnover which only reach Rp 9,1 million/year (Wahab, 2016).

The basic reason of the modern market or supermarket can rapidly increase in society was urbanization, this urbanization tend to increase per capita income of urban community which affected the increase of population growth (Purwanto, 2012). Not to mention the bad management system of the traditional market, the infrastructure of traditional market was also considered to be less supportive (Susanto & Prihatminingtyas, 2007). The existence of traditional market was decreasing day by day, whereas as one of the real strengthening economic terms, the traditional market has an important function and role as the main place to gather the goods or products from the local community (Brata, 2016). The community will sell agriculture or livestock products in the traditional market. The traditional market is the center of transaction and supply networks for the high nutritional food, such as meat.

One of the foodstuffs that became the nutrition source for the community was meat. Beef was considered as the most consumed of animal food commodity. Until now, Indonesia is still import the beef, this is because the country is unable to provide the stock needed and if the country is able, the beef quality that produced is still lost to the imported beef quality (Ridho, 2019). This intense competition will affect the producers and also marketers in determining the right and efficient marketing strategy that will be used to promote the products. Certainly, when determining the correct product to promote in the community, the producers and marketers need to know how the market condition or consumer preferences.

Semarang City is the capital city of Central Java Province, besides known as the capital city, is also known as its population density. In 2016, the population of this city was reach 1.729.428 person with the population growth rate of 1,66 % per year (Central Bureau of Statistics Semarang City, 2017). The high population in Semarang City was also caused the high beef consumption in Semarang City. This

proven by the beef commodity that ranked in the big five of people expenditure (per capita per month) on the foodstuffs that worth of Rp.29.414. The first place was occupied by food and beverage that worth of Rp. 199.944, the second place was tobacco and betel of Rp. 53.630, the third place was grains of Rp. 51.432 and the forth place was eggs and milk of Rp. 42.882 (Central Bureau of Statistics Semarang City, 2018). This illustrated that the people in Semarang City had high level of beef consumption so it can be known that people in Semarang City like beef. The consumers that like the products tend to do repeat purchasing so the consumption of the products will be increasing (Saidani & Arifin, 2012).

The consumer preference indirectly showed the product that liked by the consumer from various products choices. The existence of this preference also illustrated a person's preference toward a product or service that influenced by an individual characteristic, product characteristic and environmental characteristic. Consumer preference can be used as the reference for the meat producers in improving the meat quality that will be promoted. The beef producers or marketers in Semarang City were expected to pay attention and understand the consumer preference also attributes that properly influenced them so that the producers can apply it into the products and give the best according to the consumer preference to the beef. The product attribute was a type or characteristic from a product that become consumer's consideration in purchasing a product. Before the consumers decide to buy, they will assess it first, observe and consider the physical characteristic (attribute) in the product that in accordance to their desire to get satisfaction. The product attributes in this research including meat color, meat fat and meat cutting.
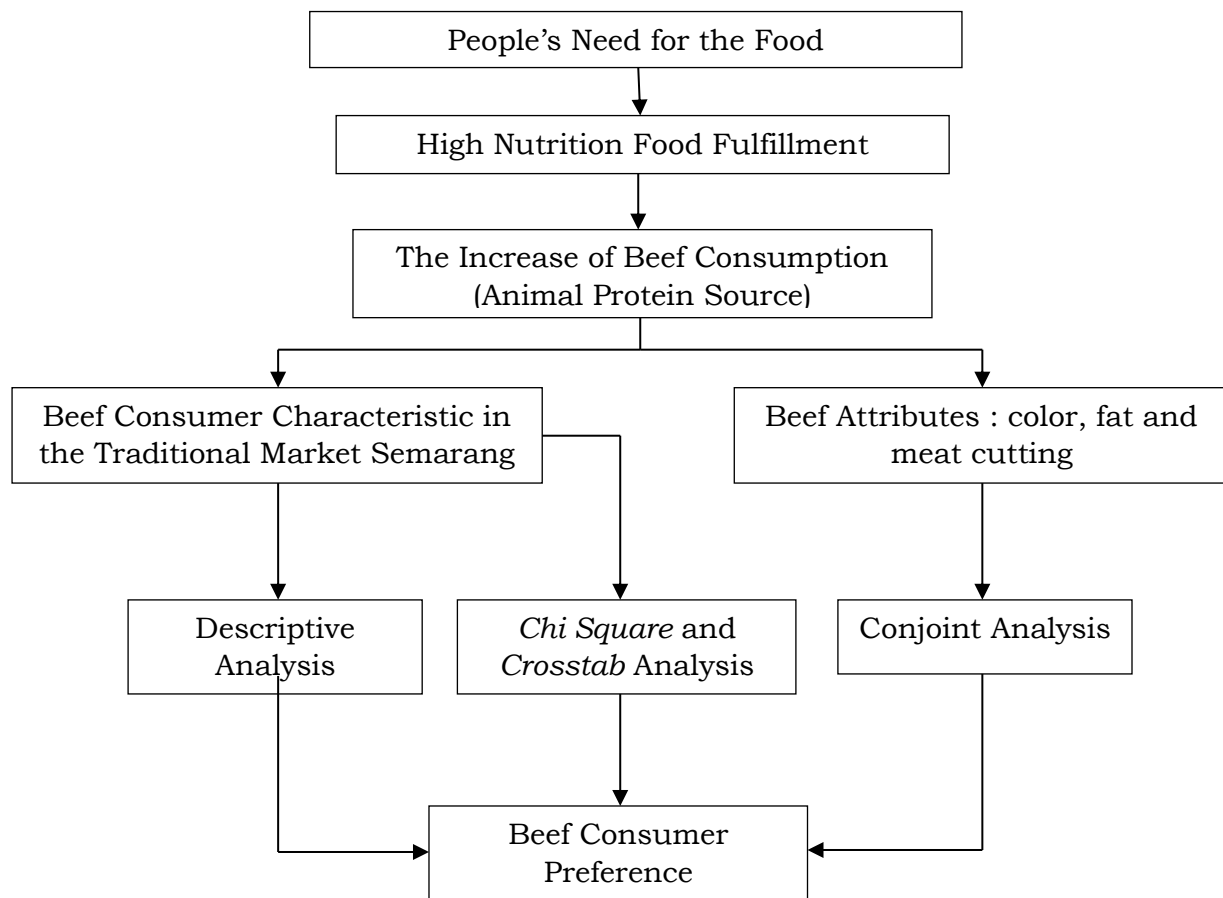
The aims of this research were 1) to analyse consumer characteristic in buying and beef consumption in the traditional market Semarang City, 2) to analyse the connection between number of family member and the number of beef purchases, 3) to analyse standart beef attributes as basic consideration to determine consumer preference or favorite in the traditional market Semarang City also 4) to analyze the most important beef attributes for the consumer in the traditional market Semarang City.

This research was important to be done because this can help the local breeders who have experienced reduction sales so that cannot compete with the imported beef. The research result, in the illustration form of consumer preference to the beef can be used as a reference to the beef sellers which help sellers to provide meat that in accordance with the consumer preference, therefore it has impact to the enhancement sales and can compete with the imported meat.

RESEARCH METHODS

As we all know, the most important human need is food. Nowadays, many people awared that food with high nutrition is one of the welfare indicators in the society. Beef is one of the animal food commodities that often consumed by the people, because it is delicious and has high nutrition. The consumer preference can be used as the reference for the meat producers to improve meat quality that will be promoted. The producers was expected to observe and understand the consumer preference and attribute that well influence so that the producers can apply it into

the product, to satisfy the consumers, especially in the beef purchases. For more details, the framework in this research was shown in the Picture 1 below:

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┌─────────────────────────────────────┐
│      People's Need for the Food      │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│    High Nutrition Food Fulfillment   │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│     The Increase of Beef Consumption │
│        (Animal Protein Source)       │
└─────────────────────────────────────┘
          │                    │
          ▼                    ▼
┌──────────────────────┐  ┌──────────────────────┐
│ Beef Consumer        │  │ Beef Attributes :    │
│ Characteristic in    │  │ color, fat and       │
│ the Traditional      │  │ meat cutting         │
│ Market Semarang      │  │                      │
└──────────────────────┘  └──────────────────────┘
    │            │              │
    ▼            ▼              ▼
┌─────────┐ ┌──────────┐  ┌──────────────┐
│Descrip- │ │Chi Square│  │  Conjoint    │
│tive     │ │and       │  │  Analysis    │
│Analysis │ │Crosstab  │  │              │
│         │ │Analysis  │  │              │
└─────────┘ └──────────┘  └──────────────┘
    │            │              │
    └────────┐   ▼   ┌──────────┘
          ┌──────────────────┐
          │ Beef Consumer    │
          │ Preference       │
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Picture 1. Framework Illustration
Source: (Research Primary Data, 2020)

The research was conducted in February – March 2020 in five markets of Semarang City, which were Damar Market, Waru Indah Market, Mangkang Market, Genuk Market and Peterongan Market where the location was chosen purposively because the traditional market has more beef sellers than modern market. The reseach was conducted by survey method using questionnaires as the data collection tool with interview technique to the respondents. The survey research was carried out by collecting the data, then distributing questionnaires to several groups of people, then the responses will be drawn as the conclusions by the researchers who as a whole represent all respondents (Morissan, 2012). The determination of numbers of sample used quota sampling of 100 respondents. Quota sampling was sample determination technique from a population with certain characteristics and was carried out until the amount (quota) needed was met (Indriani, 2013).

The samples were taken using purposive sampling method. Purposive sampling was a method where the researcher determined specific requirements to the prospective respondents that in accordance with the research's aims, so that its expected to answer all the research's problems (Fatihudin, 2015). The determined specific requirements for the beef consumer as the prospective respondents was

including beef consumer that bought meat for self consumption not for resale and shopped in traditional market as the research sample. The data colletion method was carried out by interviewing or direct questions and answers to the respondents, using the prepared data list as the primary data where the questionnaire used in this research contained respondent characteristics and consumer preference. The observation was carried out by being directly involved in the field and observing. Literature research was done by finding secondary data from related parties and from scientific literature (books or journals) as the material comprehensive reference and organized research result.

For the first aim of this research used chi square analysis as the data analysis method. This analysis was used for determining the similarity (goodness of fit) that used for finding if the observed frequency distribution significantly deviated from a hypothesized or expected frequency distribution (Dwiwinarsih, 2012). Then for the second aim, Crosstab analysis used as the analysis method. Crosstab analysis (crossed tabulation) is intended to determine the connection between row and column (dependent and independent variables) with nominal or ordinal data (Nur, 2010).

Meanwhile, the third and fourth aim used Conjoint data analysis method. This analysis was used for finding consumer preference. Conjoint analysis was a technique that used for assessing consumer preference to the attributes which including specifications or features of a product or service based on the consumer subjectivity to the some offered combined features (Yasmin, Prastiwi, & Handayani, 2017). The consumer subjectivity can be measured by using score (likert scale) or rank. The inspected attributes were meat color (pink, bright red, and red), fat (contained more fat, low and zero) and meat cutting (group 1, group 2 and group 3). The first group of meat cutting were including terderloin, sirloin and cube roll, second group of meat cutting were including rump, inside, top side, hump, silver side, round, big and small plate, third group of meat cutting were including shank, rib, flank and brisket (National Standardization Agency, 2008). The measurement of research instruments for preference used score scale – 2 until 2 with definition – 2: very dislike, - 1: dislike, 1: like, 2: very like.

RESULT AND DISCUSSION
Consumer Characteristics in Beef Purchasing and Consuming at the Traditional Market in Semarang City

Table 1 Beef Respondents Characteristics at the Traditional Market in Semarang City

No.	Characteristic	Category	Number	Percentage
			---person---	----(%)----
1.	Gender	Male	26	26
		Female	74	74
2.	Age (Years Old)	20 – 25	11	11
		26 – 30	18	18

No.	Category	Subcategory		
		30 – 35	23	23
		36 – 40	26	26
		> 40	22	22
3.	Last Education	Elementary	2	2
		Junior High School	1	1
		Senior High School	49	49
		Diploma	17	17
		Bachelor	28	28
		Master	3	3
4.	Occupation	Government Employee	25	25
		Housewife	30	30
		Entrepreneur	18	18
		General Employee	27	27
5.	Number of Family Member	2	5	5
		3	15	15
		4	40	40
		5	30	30
		6	6	6
		7	3	3
		8	1	1
6.	Average Income	< 1.000.000	6	6
		1.000.000 – 2.500.000	14	14
		2.500.000 – 5.000.000	29	29
		> 5.000.000	51	51

Source: (Research Primary Data, 2020).

Based on the table 1, there were more female respondents rather than male which were 74 females with percentage of 74% meanwhile 26 males with percentage of 26%. According to (Wijayanti, 2011) this was because female were generally the decision makers in family consumption so that female more often went to the market to fulfill family consumption need. Then, respondents with the age of 36 – 40 years old occupied the most respondents' category with percentage of 26%. That was in accordance with the opinion of (Baraja, 2018) stated that the more mature individually, that will affected the buying decision to a product. It will become more selective and adjusted to their consumption patterns. The respondents who graduated from Senior High School Responden were occupied the first rank as of 49 person with percentage 49%. The education level also determined the comprehension of nutrition content that contained in beef and rationality level in the consumption

behavior, so it can be concluded that the education level had positive influence in beef consumption level (Nugroho & Suparyono, 2015). The respondents that worked as housewives occupied the most respondents' category which was 30 persons with percentage of 30%. Housewives tent to have more time than career mothers, where most of the time was spent to manage the house need such as shopping for family consumption.

The respondents with 4 family members became the highest respondent category which was 40 persons with the percentage of 40%. Consumers with less than 4 family members will tent to choose less products than consumers with 4 or more family members tend to choose more products (Khusna, Irianto, & Setyowati, 2016). The most respondents was in the category of average income of > 5.000.000 as of 51 person with percentage of 51%. The income rate will affect the people purchasing power to the beef product. The higher income received by an individual, the higher tendency to consume meat (Fatmawati, Rostin, & Baso, 2016).

The Connection between the Number of Family Members and Beef Purchase Amount
Chi square and crosstab analysis used for analyzing the connection between number of family members and beef purchase amount (kg) for 1 month.

Table 2 Crosstab and Chi – Square Number of Family Members and Beef Purchase Amount

No.	Number of Family Members (person)	Beef Purchase Amount (kg)			Total (kg)
		< 1	1 – 2	> 2	
1.	2	1	2	2	5
2.	3	7	3	5	15
3.	4	11	22	7	40
4.	5	3	18	9	30
5.	6	1	4	1	6
6.	7	1	0	2	3
7.	8	0	1	0	1
	Total	24	50	26	100
	Pearson Chi-Square	x^2 = 16,668	df = 12	p = 0,163	

Source: (Research Primary Data, 2020)

Based on table 2, it can be seen that the most respondents was in the 4 family members, that bought beef less than 1 kg was 11 person, 22 person of 1 – 2 kg and 7 person more than 2 kg, which in total 40 person with percentage of 40%. This can be seen that the number of family members determined the amount of beef consumption. According to (Perdana, Handayani, & Budiraharjo, 2013) the numbers of family members in a house can affect the beef demand, where if, the more number of family members so the higher purchased beef consumption will be, but the flavor level also had an influence to the increase of beef demand. Meanwhile, based on the

international research that was done in Mexico, it was known that there was a definite connection between the consumed beef amount and number of family members, the number of family members was a siginificant factor in a household for making decision to beef purchase, three or four family members consumed more beef (Delgado & Flores, 2015).

The chi – square significant value between number of family members and beef purchase amount was α < 0,05 which mean that Ho was rejected, so it can be concluded there was a connection between number of family members and beef purchase amount. This is in accordance with (Adiana & Karmini, 2012) that stated there was a connection between the number of family members with their consumption patterns that will affect the product purchase amount

Standardized Beef Attributes as the Basic Consideration to Determine Consumers Preference or Consumers Reference in the Traditional Market at Semarang City

Table 3 The Result of Conjoint Analysis of Beef Attributes in the Traditional Market at Semarang City

	Attribute	Utility Estimate	Std. Error
Color	Pink	-.171	.081
	Bright Red	.100	.081
	Red	.071	.081
Fat	High Fat	-.411	.081
	Low Fat	.169	.081
	Zero Fat	.242	.081
Cutting	Group 1	.075	.081
	Group 2	-.128	.081
	Group 3	.053	.081
(Constant)		.284	.057

Source: (Research Primary Data, 2020)

According to (Malindi, 2010) the chosen meat was also influenced by sensory attributes (appearance, flavor, taste and texture), although consumers sometime sell sensory attributes for other purposes such as nutrition or price. Beside that, based on (Souček & Turčínková, 2015) meat quality showed 60% influenced the consumers in purchasing beef. According to (Jensen, 2014) freshness of the meat became the most important preference, then followed by texture and meat color. This was more supported by the research done by (Souček & Turčínková, 2015) the freshness of the meat was the main factor in choosing meat.

Based on table 3, it can be seen bright red meat attribute with positive utility value of 0,10. This means that consumers preferred bright red meat rather than other color. In fat attribute, the value of zero fat had positive utility of 0,24 which means consumers preferred zero fat rather than high or low fat. In the cutting attribute, the value of group 1 cutting had positive utility of 0,75 so it was known that consumers preferred group 1 meat rather than group 2 or 3. Based on that, it

can be seen that consumers preferred bright red meat, zero fat meat and group 1 meat cutting (tenderloin, sirloin and cube roll).

According to (Syahfitriani, Tarigan, & Bangun, 2013) utility can showed the level of consumer reference, positive utility means that respondents like the stimuli of the product but if the utility value was decreasing or lead to negative, respondents does not like the product stimuli so that the consumers preference will also decreased. The Importance Values of beef attributes can be seen in the table below:

Table 4 Importance Values of Beef Attributes at the Traditional Market in Semarang City

No.	Attribute	Percentage (%)
1	Color	28,24
2	Fat	44,99
3	Cutting	26,75

Source: (Research Primary Data, 2020)

According to (Resmawati, Mukid, & Safitri, 2013) relative importance value showed which attribute was considered as the most important for the consumers that affected their choices in buying. Based on table 2, it can be seen that the most important attribute was meat fat that had importance values percentage of 44,99% then on the second position was color attribute of 28,24% and the last or not too important attribute was cutting attribute of 26,75%. This showed that fat attribute considered important for the consumers in beef purchasing. This was also in accordance with the research done by (Killinger, Calkins, Umberger, Feuz, & Eskridge, 2004) stated that consumers willing to pay more to get low texture meat and the lowest fat in the meat. This was quite similar to the opinion of (Baraja, 2018) stated that the most attribute that influenced consumers in purchasing beef were beef price, fat contained, beef color, beef texture and part of the beef where it showed that the beef price became the most impotant factor to the consumers

CONCLUSION

From this research, it can be concluded the consumers characteristic that purchased and consumed beef in the Traditional Market Semarang City were female, age of 36 to 40 years old, graduted from Senior High School, as housewives and had family income more than Rp. 5.000.000 per month. There was a connection between number of family members and beef purchased amount in 1 month. The formed consumer preference to the beef product in Traditional Market Semarang City was consumer preferred bright red beef, zero fat and group 3 meat cutting (shank, rib, flank and brisket). The most important beef attribute for the consumers based on the Importance Values were fat of 44,99%, color of 28,24% and cutting of 26,75%.

RECOMMENDATION

The suggestion for this research was for the beef sellers were hoped that the result of this research can be used as reference in chosing beef that will be promoted to the consumer so that consumers feel satisfied and have an impact on increasing sales. Consumers also can use the result of this research as a reference in assessing

the beef quality that will be consumed. The researchers should look for more beef attributes that can be analysed in order to get a better result. The researchers need to be more careful in processing the data and writing the research discussion.

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