Does Consumer Like the Coffee? A Study of Product Quality of a Local Business Ground Roasted Coffee in North Sumatera

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ABSTRACT

Producers are required to provide quality products according to quality standards and consumer needs. Quality is one factor that consumers consider when buying a product. The coffee processing industry is rapidly growing because of the high demand for this product. "The X Coffee" is one of the ground coffee processing industries that applies quality control in its production process. Nevertheless, defects were still found in their products. This study aimed to identify the consumers' perception of the quality of ground-roasted coffee products. The research design used was a case study. Data were analysed using descriptive statistics. The results showed that consumer perceptions of coffee's price, colour, taste, and size were good and fit consumers' expectations. The most chosen attributes according to consumers' needs are product aroma and the least amount of coffee powder size. Improvements would be suggested related to the size of the coffee grounds for being too coarse to make them acceptable. Consumers perceived the packaging information as incomplete so more product information could be added to the package. The coffee beans tasted too bitter, which could reduce the roasting level. The priority improvement is to change the size of the coffee grind to a smoother one because it will affect the taste and convenience when consumed.

1. INTRODUCTION

Food lifestyle changes in urban areas drive Indonesia's local demand for coffee drinking (see Table 1) and continue expanding economic development (Arif Rahmanulloh & McDonald, 2019; TPSA Project, 2017). One market segment contributing to increasing coffee demand is the urban consumer of coffee shops. Coffee shops have an essential role in increasing domestic consumption, improving living standards, and shifting the lifestyle of urban communities in Indonesia to shift consumption patterns into a lifestyle (Rahmanissa & Sadeli, 2016).

Table 1. Coffee Consumption in 10 Exporting Countries (in thousands of 60 kg/bags)

No	Country	2018/19	2019/20	2020/21
1	Brazil	22,200	22,000	22,400
2	Indonesia	4,800	4,806	5,000
3	Ethiopia	3,685	3,781	3,798
4	Philippines	3,300	3,250	3,312
5	Viet Nam	2,600	2,650	2,700
6	Mexico	2,450	2,425	2,420
7	Colombia	1,791	2,025	2,045
8	Venezuela	1,550	1,275	1,100
9	India	1,475	1,450	1,485
10	Thailand	1,400	1,400	1,415

Source: (International Coffee Organization, 2021)

Currently, the demand for coffee is increasing in various countries, including Indonesia. Indonesia's coffee consumption level is the second highest among the world's ten largest coffee-exporting countries. Coffee consumption for 2018/2019 increased to 4.3 million bags, reflecting the high consumer demand for fresh roasted, soluble, and Ready-to-drink (RTD) products. Consumption for 2019/2020 was forecasted at

4.9 million bags, concerning continued high consumer demand (Arif Rahmanulloh & McDonald, 2019). Some global coffee shop brands operate in Indonesia (see Table 2).

Table 2. Coffee Shops in Indonesia Continue to Expand

Coffee Shops	First Opening	Number of outlets and city coverage
Starbucks	2002	403 in 25 Cities (2019)
Maxx Coffee	2014	83 outlets in 23 Cities (April 2019)
Coffee Toffee	2006	126 outlets in 30 cities (2016)
Gade Coffee & Gold	2018	33 Outlets in 30 cities (2019)

Source: (Arif Rahmanulloh & McDonald, 2019)

There is an increase in coffee shops in big cities in Indonesia, including in North Sumatra. The famous Sumatran coffee is also produced in the North Tapanuli Regency area. North Tapanuli Regency is the largest Arabica coffee-producing area and the fourth-largest Robusta coffee-producing area in North Sumatra (see Table 3). These coffee businesses have potential in North Sumatra, especially in North Tapanuli Regency. The secondary coffee processing industry or coffee production factories support the increase of coffee shops in Tarutung.

Table 3. Coffee Production Area in North Sumatra in 2018

No.	Regency	Arabica Production (Tons)	Regency	Robusta Production (Tons)
1	North Tapanuli	14,175.87	Dairi	3,387.84
2	Karo	13,279.74	Simalungun	710.53
3	Dairi	9,587.35	Padang Lawas	681.03
4	Humbang Hasundutan	8,067.36	North Tapanuli	569.80
5	Samosir	4,151.96	Mandailing Natal	400.60
6	Others	13,341.66	Others	1,038.9
	North Sumatra	62,603.94	North Sumatra	6,788.70

Source: (North Sumatra Provincial Plantation, 2018)

The provinces of North Sumatra and Aceh are the largest Arabica coffee producers in the country, producing almost 60 per cent of the total (TPSA Project, 2017). Coffee yields are generally low for both Robusta and Arabica varieties, both in terms of potential and compared with other major producing countries (Arif Rahmanulloh & McDonald, 2019). Robusta production accounts for approximately 80 per cent of total production and is located in Southern Sumatra's Lampung and Bengkulu regions. Arabic variety has increased in West Java and Bali, primarily produced in Northern Sumatra. North Sumatra is third in the coffee production centre after South Sumatra and Lampung, where coffee production in North Sumatra reaches 72,922 tons (see Table 4). Sumatra remains Indonesia's largest coffee-producing region, producing 70 – 75 per cent of all green bean coffee. In 2019/2020, coffee production is forecast to reach 10.7 million bags, an increase of 100,000 bags from 2018/2019 (Arif Rahmanulloh & McDonald, 2019).

Table 4. Coffee Production by Province in Indonesia 2016-2018 (Tons)

No.	Province	Year		
		2016	2017	2018
1	South Sumatra	120.904	184.166	193.507
2	Lampung	115.524	107.219	110.597
3	North Sumatra	65.926	67.544	71.023
4	Others province	361.517	359.033	380.924
5	Indonesia	663.871	717.962	756.051

Source: (Kementerian Pertanian Republik Indonesia, 2019)

Coffee stores are also one of the businesses that many people are interested in, especially since coffee is one of Indonesia's primary commodities, and it has many enthusiasts (Anggraeni & Soliha, 2020). One type of coffee commodity business is processing coffee beans into ground roasted coffee. The processing of coffee beans into ground roasted coffee is widely sought by people in small and large industries, either through manual or mechanical processing (Syah et al., 2013). The entire coffee processing industry in Tarutung is still at the household or small-scale business level. Cafes or coffee shops must buy roasted beans and ground roasted coffee according to the purchase order, choosing the roasting level or the powder size. Based on observation, only nine coffee processing businesses were in this area. One of the nine coffee processing businesses is "The X Coffee", which already had the legality of Licensing for Home Industry Products (P-IRT) issued by the local Health Service and The Intellectual Property Rights (HAKI).

Products must be analysed from the perspective of customer or consumer needs (Mitra, 2012). If businesses want to increase customer satisfaction, it will be more valuable to influence consumer perceptions of product performance (Saleem et al., 2015). Evaluation activities are an essential determinant in assessing product performance so that the product can satisfy consumers through its quality attributes (Rahmanissa & Sadeli, 2016), in line with the fact that feedback is used because it can improve organisational performance (Mulder & Ellinger, 2013).

In agricultural products, some product quality is seen in the level of freshness, food safety, value, taste, appearance, and service quality, which are closely related to consumer expectations (Chamhuri & Batt, 2015; Gao et al., 2011; Meidutė-Kavaliauskienė et al., 2013). Agricultural processing industry actors must produce good quality products to meet consumer expectations and to satisfy consumer needs and requirements. "The X Coffee" always introduces the local product value of authentic coffee from North Tapanuli to achieve the target of selling in the national market. It is advised that more research be done on local food, including studies on various items or product categories and research conducted in various nations (Feldmann & Hamm, 2015). On the other hand, the owner is less aware of consumer preferences and how consumers perceive their products.

Many studies have used statistical analysis for comparisons, sensory analysis for food products, consumer testing, and other advanced analyses (Hersleth et al., 2005; Magnier & Crié, 2015; Wlodarska et al., 2016). There is insufficient need for inferential statistical analysis, sensory analysis, and consumer tests if basic perceptions in scoring are all required and if these views can add to the assessment that the company has never completed. This study uses descriptive analysis as a picture and preliminary data where, in the future, it can conduct more advanced analysis according to knowledge development needs. This study aimed to describe consumer assessment of the quality attributes of "The X Coffee" product. The quality attributes of products showed consumer perception; by the ratings of these consumers, the owner of "The X Coffee" can focus on which attributes should be prioritised to increase customer satisfaction and acquire information on how well the consumers receive their products.

2.   METHODS

The research was conducted at "The X Coffee", North Tapanuli Regency, North Sumatra. The research design was descriptive, using a survey technique on 30 consumers of The X Coffee who were selected accidentally. The selected consumers were making purchases at the store at the time. They were selected based on the following criteria: individuals who had purchased the company's ground coffee before and were willing to complete the research questionnaire.

A fundamental issue is when people and scientists confuse numbers with reality. On the other hand, statistical inference is simply a thought experiment that characterises the prediction power of reality-based models. These models are unavoidably oversimplified when contrasted with the complexities of doing research and studies in the actual world. Statistical results will always lead us astray when utilized and shared as though they represent this intricate reality rather than acting as a model. It is a question of communicating and understanding the results (Amrhein et al., 2019).

Data analysis

Data analyses were performed using SPSS 17.0. Quality characteristics comprise two broad classes, i.e. variables and attributes (Mitra, 2012). The quality attribute of coffee products is one of the most essential aspects in measuring consumers' perceptions of a coffee shop. The concepts and variables about perceptions of product quality can be explained as follows:
1. Price is the amount of money consumers are willing to pay the price of a product.
2. Taste is a biological perception produced from ingredients consumed by the mouth.
3. Colour is the colour produced after the grinding process
4. Aroma is the fragrant smell produced by coffee grounds.
5. Packaging is the material used in containers to prevent defects.

6. Shelf life is the suitability of storage time.

A survey was used for data collection using a closed questionnaire asking respondents' responses to product quality attributes consisting of 12 questions on a Likert scale from 1 "strongly disagree" to 5 "strongly agree". Data were analyzed using descriptive statistics to facilitate the description and summarization of data. Descriptive statistics perfectly collates and summarises quantitative data. Good exploratory data analysis starts with the ability to describe. (Cooksey, 2020; Marshall & Jonker, 2010; Young & Wessnitzer, 2016).

Table 5: Operationalization of Variables

Concept	Dimension	Variable	Response
Perceptions of Product Quality	Prices	Affordable Product Prices	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
	Taste	Taste is suitable and accepted by mouth	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
		The taste of the product is the same for each product purchase at a different time (taste consistency)	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
	Colour	The dark brown colour of the product is appropriate	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
	Size Grind Coffee	Medium to coarse coffee grounds size is suitable	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
	Aroma	The aroma is delicious	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
	Packaging	The packaging materials used are satisfactory	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
		The packaging design used is attractive.	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree
		The label design contains complete information.	(1) Strongly Disagree (2) Disagree (3) Neutral (4) Agree (5) Strongly Agree

This analysis reflected consumer perceptions of product quality through frequency, percentage and mean distribution. The score obtained in the questionnaire is then used as a percentage score. Range of categorical values for each variable using the following interval formula:

Interval = (Highest Range-Lowest Range) / (Number of classes) = (5-1) / 5 = 0.8

The item rank was calculated based on the average value of each item. The measurement scale is shown in Table 6 below.

Table 6: Measurement Scale of Response

Criteria	Range Interval	Interval Average Value
Strongly Agree	0,8	4,20-5,00
Agree	0,8	3,40-4,19
Neutral	0,8	2,60-3,39
Disagree	0,8	1,80-2,59
Strongly Disagree	0,8	1,00-1,79

Source: (Dewantara et al., 2018)

Regarding Table 6, the average value of items 1.00 - 1.79 is categorized as 'Strongly Disagree', the average value of items 1.80 - 2.59 is 'Disagree', the average value 2.60 - 3.39 is' Neutral', the average value 3.40 - 4.19 is 'Agree', and the average value 4.20 - 5.00 is 'Strongly Agree'.

3. RESULTS AND DISCUSSIONS
Results

Consumer perceptions of product quality were analyzed using descriptive statistics. Regarding Table 7, the product quality attributes consisting of price, taste, colour, size, aroma, and packaging have an average value from 3.40 to 4.19. This score is categorized as "Agree," indicating that some consumers agree that the quality of the product received aligns with consumers' needs.

Table 7: Descriptive Statistics

Attributes	N	Min.	Max.	Mean
Price	30	2.0	5.0	3,733
Taste	30	2.5	5.0	3,817
Colour	30	2.0	5.0	3,833
Grind Size	30	2.0	5.0	3,633
Aroma	30	3.0	5.0	4,300
Packaging	30	3.0	5.0	4,056

1) Price

Consumers' perceptions about product prices are indicated in Figure 1. Regarding Figure 1, most consumers (73.33 per cent) agreed that the price of coffee products was affordable, and at least 33 per cent of consumers perceived strongly that the price of coffee products was affordable. If the value given by the consumer is positive, the price setting is correct. Consumers compare the value issued with that obtained from the product and then consider the accuracy of the product's price and results (Asnawi, 2019).
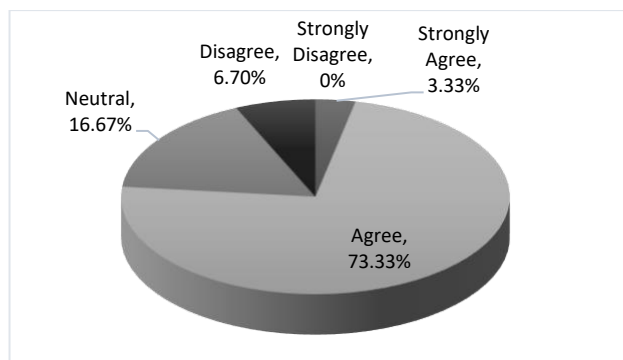
Figure 1. Percentage of Consumer Perception of Coffee Product Prices

The average quality attribute is 3.73, indicating that the average consumer agrees that coffee products are affordable because of the current price. It also obtained a taste that suited consumers' taste and perceived the ground coffee as pure. The price here means whether the price paid by the consumer is under the quality received (Rahmanissa & Sadeli, 2016).

The minimum value of this item is 2.00, which indicates that some consumers think that the price of coffee products is not affordable in all circles. This is because it is compared to unbranded ground coffee products in traditional markets. In traditional markets, unbranded ground coffee has a selling price of only 30 thousand per kg, while this powder is 150 thousand/Kg. The types of coffee sold are provided with supporting materials to reduce the bitterness of the coffee, thereby reducing the authenticity of the coffee. The addition of non-coffee ingredients aims to reduce prices. The primary changes in mixed coffee are taste, appearance, shelf life, colour, and selling price. Carbohydrate ingredients are often added to the coffee bean: seed corn, rice, and cereals (Rini, 2017). However, the target of this product is consumers who prioritise quality and consumer food safety.

2) Taste

Consumers' opinions about the product's taste (see Figure 2). The dominant consumers were as many as 15 people because the taste of the coffee product was appropriate, and the taste obtained at each purchase was consistent. Taste is an essential parameter in food products because it is the taste buds' perception. These salty, sweet, sour, and bitter tastes are caused by substances easily dissolved in the mouth (Sabara et al., 2017). This is caused by a product that has a pure coffee taste. This type of Robusta coffee has the highest level of bitterness because of its caffeine content. Caffeine will determine the bitterness of coffee when brewed.
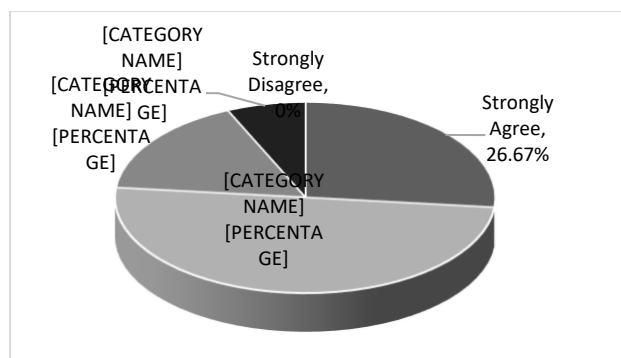

Figure 2. Percentage of Consumer Perception of Coffee Product Taste

The consumers disagreed that the product had an appropriate taste in the mouth and was consistent with every purchase, namely as much as 2 per cent. This is because the product has a pure coffee taste and is not sour. In traditional markets, when brewed, ground coffee is given additional ingredients or a mixture such as corn, cocoa, and rice flour to reduce the bitter taste and coffee concentration. Consumers have long consumed this kind of mixed coffee, so consumers' tongues are accustomed to the taste of mixed coffee and reject the original, pure coffee. Consumers also stated that the quality of raw materials is not good enough, so the final product produced is unsuitable. The quality of the materials comes from various suppliers with random grade types. The raw grade has a high level of coffee bean defect. Defective beans will affect the taste of the

coffee. The higher the defect rate of the coffee bean raw material, the higher the negative effect on the taste of the coffee. Types of defects, namely black beans, cocoa beans, and holes, strongly affect taste (Setyani et al., 2018). Besides, the taste of Robusta coffee burnt due to the roasting level set. The higher the roasting level, the more the resulting taste will be burnt and bitter. Another factor that can cause this is the closed roasting system processing method. Nonetheless, the average quality attribute is 3.96, indicating that the average respondent agrees that the taste and quality of the product are good.

3) The Color

Respondents' opinions about product colours are explained as follows. Most respondents agree that the appearance of the coffee powder colour is as desired (see Figure 3) because, with the colour that is owned, the taste produced follows the consumer's sense of taste. The level of colour selected from the roasting results can describe the resulting taste. The darker the powder, the more bitter the taste will be. Colour is crucial in determining foodstuffs' quality or degree of acceptance (Sabara et al., 2017).
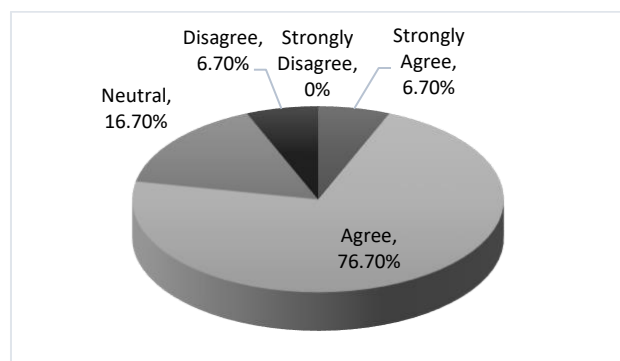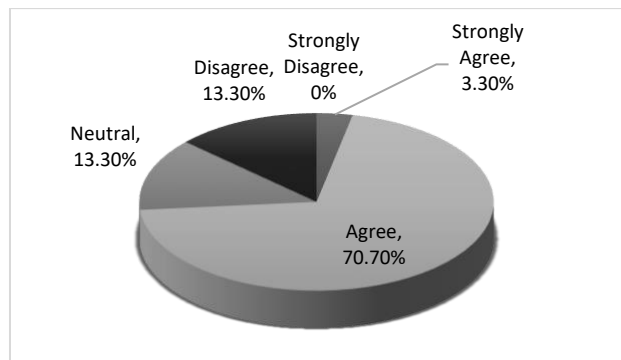

Figure 3. Percentage of Consumer Perception of Coffee Product Color

Customers consider price, atmosphere, comfort, taste, and location when they choose coffee shops, and demographics show different attributes based on segmented groups (Yu & Yoo, 2011). Most coffee shop customers are familiar with the taste of coffee, which influences their loyalty (Shin et al., 2015).

Only a small number of the respondents (6.7 per cent) selected neutral and strongly agreed, which perceived the dark brown colour of the coffee as appropriate. The neutral choice indicates that the respondent has not determined a position, provided that the statement items are unambiguous (Widhiarso, 2010). This can be a consideration regarding the roasting level because it directly affects the colour of the coffee. Respondents who disagreed stated this aligned with their opinion about the product's taste. The colour of the coffee grounds is too dark, which can result in a slightly bitter taste. In addition, the inconsistency of the resulting colour causes consumers to hesitate to choose whether the colour is appropriate. The darker the coffee, the more bitter the brew will be. The average colour quality attribute item is 3.83, which indicates that the appearance of the coffee powder colour is as desired.

4) The Grind Coffee Size

The respondents' opinions about the size of the product powder obtained data, as shown in Figure 4. Based on Figure 4, most respondents agreed with the opinion on the size of the coffee powder (21 consumers), and the least agreed. This means that most respondents stated that when brewed, the powder measure dissolves and does not appear on the surface. If the coffee powder is found on the drink's surface, then this thing is not quite disturbing for the respondent.
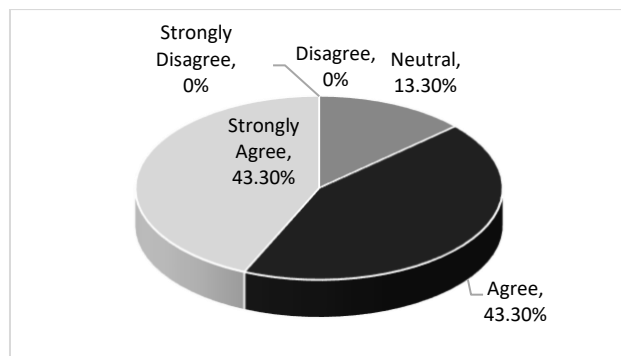
Figure 4. Percentage of Consumer Perception of Coffee Product Grind Size

However, from the diagram above, it can be seen that there are respondents who choose to be neutral (12 consumers) that grind coffee size is good. The minimum value of this attribute is 2.0. This point comes out because respondents say the coffee grounds are too coarse, so when brewing the drink, the coffee grounds will stay on the water's surface. It needs to be filtered again, or the powder on the surface needs to be removed or brewed with freshly boiled water. Coarse coffee grounds also cause many residues to remain. In addition, the size produced by each product purchase is often found to be different, sometimes finer, smoother, or coarser. The average item of this quality attribute is 3.83, which indicates that the respondents agree that the size of the coffee powder produced is generally appropriate.

5) Aroma

The opinions of 30 consumer respondents regarding the product's aroma were obtained (see Figure 5). The dominant respondents strongly agreed and agreed with the fragranced aroma with their respective percentages (43.3 per cent). This means that 26 respondents stated that the product had a pleasant aroma. The aroma produced by food products comes from volatile molecules that are captured by the nose as a sense of smell (Sabara et al., 2017). The aroma of coffee caught by the nose will be fragrant immediately after brewing, so respondents will be triggered to enjoy coffee. The aroma is not strong because of the closed roasting system. Regarding the owner's information, the aroma of Robusta coffee is better than Arabica coffee.

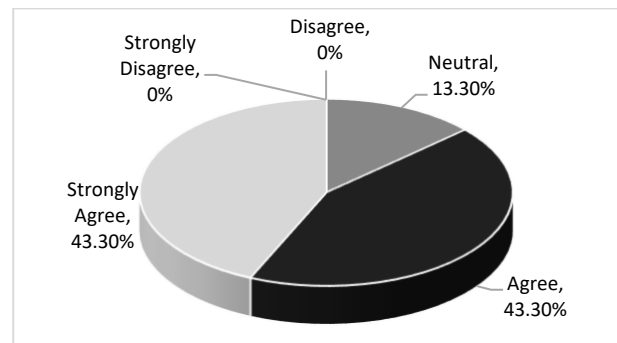**Figure 5.** Percentage of Consumers' Perception of Coffee Product Aroma

Closed roasting produces a sharper aroma because the content of chemical compounds does not evaporate much and avoids the smell of fuel and smoke. The raw material is mixed with male bean coffee to contribute to this aroma. Male coffee (Pea berry coffee) is a type of coffee that has one bean. The aroma of male Robusta coffee is high (Rahmanissa & Sadeli, 2016). The average value of the analysis of the aroma characteristics produced by male Robusta coffee is 4.53 out of 5, which indicates that the level of distinctiveness of the aroma of steeping is the highest (Aditya et al., 2016). Respondents at least chose to neutral as many as four people. According to respondents, the aroma produced was just the usual coffee aroma. The type of black bean defect in the raw material can reduce the aroma of the coffee produced (Setyani et al., 2018). The average item of this quality

attribute is 4.33, which indicates that the respondents agree that the aroma is good on average. This value is the highest value of other quality attributes.

6) Packaging
Research on 30 consumer respondents to find out respondents' opinions about product packaging (see Figure 6). Good packaging in this study concerns packaging materials, packaging design and label design. Most respondents agree that the product has good packaging (43.3 per cent). The packaging has a suitable material (made of aluminium foil) because it has low moisture transmissibility, high oil and water resistance, scratches and tears. The packaging has an attractive colour that distinguishes it from regular products, which is red and can be seen and distinguished easily. Packaging that has a zipper lock keeps the product safe and waterproof.

Figure 6. Percentage of Consumer Perception of Coffee Product Packaging

On the other hand, the least number of respondents chose the neutral answer: that the product had good packaging (13.3 per cent). The label has been affixed on the packaging cover so it can be seen clearly. Nevertheless, the label of information is still very minimal because there is no expiration date, composition, or weight of contents.

Based on Law No. 69 of 1999 concerning Food Labels and Advertisements, Article 1, paragraph 3 explains that 'food labels are any information about food in the form of pictures, writing, a combination of both, or other forms included in the food'. In Article 3, paragraph 2, the information on the label includes at least the following: (a) product name; (b) a list of ingredients used; (c) net weight or net content; (d) name and address of produces or imports into the territory of Indonesia; (e) information about halal, and; (f) expiration date, month, and year. This shows that the product packaging does not meet the standards set by the government.

Discussions

The consumer assessment of "The X Coffee" product's quality attributes, including price, taste, colour, size, aroma, and packaging, yielded an average score ranging from 3.40 to 4.19, categorised as "Agree." These indicate that buyers typically perceive the product's quality as following their requirements. The characteristics such as age, gender, income, and education can influence variances in coffee consumption and purchasing behaviour (Samoggia & Riedel, 2018). Due to the research's objective of impartially assessing consumer judgment, the participants' identities are omitted from the findings section of the study to maintain objectivity and emphasise solely the outcomes derived from their collective responses (Gibson et al., 2013; Kaiser, 2009).

The study found that while evaluating coffee products, consumers prioritise several crucial factors, such as price, flavour, consistency, appearance, aroma, and packaging. Participants emphasise affordability and expectations of appropriate flavour and consistency, expressing a desire to bargain without sacrificing quality. Taste is only one aspect of a product's impression; other aspects include aroma, visual appeal, and package quality, all impacting consumer satisfaction and purchasing decisions. This aligns with previous studies showing that scent, cost, and label-package characteristics contribute to consumers' first impressions and should be carefully considered by those making decisions (Barahona et al., 2020; Sousa et al., 2020).

The shape and colour of the label on the container affect the expectations of consumers' tastes. A variety of factors, such as "personal preferences" and "economic attributes," which both facilitate and obstruct purchasing decisions, as well as "coffee product attributes" and "consumption context," which offer insights into product selection and consumption behaviour, must be taken into account to comprehend

consumer preferences and behaviours related to coffee entirely. Indonesian coffee drinkers have a wide range of experiences with and preferences for different types of coffee, which influences their drinking patterns. This variation emphasises how important it is for companies and decision-makers to recognise and accommodate the wide range of customer opinions regarding the quality of coffee. As suggested by earlier research connecting cup form to sensory experiences, the shape of a coffee cup can affect how some characteristics of the coffee, such as sweetness and scent, are perceived.

Additionally, coffee firms must use suitable packaging materials. Prior studies have indicated that specific quality metrics of ground coffee persisted within reasonable bounds throughout a year of preservation, underscoring the significance of packing guidelines in preserving product excellence. However, because label information is lacking or inadequate, current packaging regulations might not be able to satisfy customer expectations completely. For example, the shape of a coffee cup may influence how some characteristics of the coffee, such as sweetness and scent, are experienced. This finding aligns with earlier research that discovered connections between round forms and pleasing tastes and bulbous-shaped glasses and powerful scents (Carvalho & Spence, 2018; Samoggia & Riedel, 2018; Sunarharum et al., 2021).

Selecting the appropriate packaging material is essential for companies that roast coffee. The prior study's findings showed that, even after a full year of storage, the ground coffee's moisture content, ash content, alkalinity, and total plate count all stayed within the parameters of the quality standard (Agustini & Yusya, 2020). Due to incomplete and unsatisfactory label information, the packaging standards must be well-arranged and added with labels that provide complete information about the products which suit consumer needs.

4. CONCLUSION

The main objective of this study was to gain a deeper insight into customer-perceived product quality in the case of a coffee product based on the consumer's contextual experience of buying the product and evaluating the product attributes. This study reveals the relative evaluation of customers perceived the product attributes of the coffee powder sold by the local coffee shop "The X Coffee" as suitable to customer preference, which was sorted according to the level of customer perception from high to low score the attributes of coffee aroma, coffee packaging, the taste of the coffee, coffee colour, product price and the granule size. The coffee aroma becomes essential to consumers because the first thing that interests consumers to try coffee is based on the sense of smell of the coffee to make it more enjoyable to drink because different coffee beans have different unique aromas and tastes that create distinct smells when brewed. The specified standard of coffee bean taste is crispy and bitter (bitterness), which is not suitable for consumer preferences because the taste that comes from pure coffee becomes more bitter. For packaged coffee, the packaging is also considered important as a representative of the product quality. The colour of the coffee also represents the product quality indicator as the sensory perception. Product pricing indicates product quality by comparing consumers' expectations and how the price is reasonable, which means the price of "The X Coffee" can be considered reasonable if the product fits consumer expectations. The findings proposed improvement would be regarding the standard set size of coffee powder, namely medium to coarse, which has not yet been adjusted to consumer preference, namely the size of fine coffee powder.

These findings affect coffee brands and how companies may tailor their offerings and advertising to suit customer tastes better and raise satisfaction levels. With the coffee culture that has become the trend in the food lifestyle and the intense competition amongst various coffee products sold in the marketplace, satisfying customer requirements by enhancing customer perception of product quality has become essential to survive in the market. Integrating these findings into coffee shop management, product and marketing strategies can help local coffee companies thrive in today's competitive coffee industry. However, this study only researched a case of one local coffee shop; thus, for further generalization of the results, examining the coffee product quality from different case studies could enhance more generalizable results. Examining the effect of the combination factors of coffee product quality indicators and their effect on customer satisfaction, value, trust, loyalty, and optimization cost would be critical in future studies.

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