

Consumer Acceptance of V60-Brewed Pupuan Robusta Coffee Infused with Red Ginger Water: A Hedonic Evaluation

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Abstract

The increasing demand for innovative coffee beverages has encouraged the development of products that combine local agricultural commodities with functional ingredients. Pupuan Robusta coffee, one of Bali's premium local coffees, possesses distinctive sensory characteristics and offers potential for product innovation when combined with red ginger, a spice known for its unique flavour and bioactive properties. This study aimed to evaluate consumer acceptance of Pupuan Robusta coffee brewed with red ginger water using the V60 pour-over method through sensory evaluation. A quantitative descriptive research design was employed using a hedonic test involving 15 panelists, comprising three trained panelists and twelve semi-trained panelists. Six sensory attributes—bitterness, colour, acidity, aroma, body, and aftertaste—were assessed using a five-point hedonic scale. Data were analysed using descriptive statistics by calculating the mean score for each sensory attribute. The results indicated that the beverage achieved an overall mean score of 4.2, indicating that it was generally liked by the panelists. The highest acceptance was observed for colour, aroma, and aftertaste (mean = 4.4), while bitterness (3.9), acidity (4.2), and body (3.8) were also rated positively. These findings demonstrate that brewing Pupuan Robusta coffee with red ginger water using the V60 method produces a beverage with favourable sensory characteristics and high consumer acceptance. The study highlights the potential of integrating locally sourced coffee and herbal ingredients to develop innovative value-added beverages that support sustainable product diversification within Bali's coffee and hospitality industries.

Keywords: consumer acceptance, hedonic test; Pupuan Robusta coffee; red ginger; sensory evaluation; consumer acceptance

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1. INTRODUCTION

Coffee is one of the most favored and widely consumed beverages in the world. In general, coffee is not considered part of a healthy lifestyle because it

contains caffeine and stimulants. Coffee is a chemical mixture of more than a thousand different compounds, including carbohydrates, caffeine, alkaloids, vitamins, nitrogen compounds, and others (Rahardjo, 2012). Quoted from Wira (2017) in a Bali Post article, Robusta Pupuan Tabanan coffee is robusta coffee grown in the highland area of Pupuan District. This coffee has the potential to improve the local economy and can be considered for the export market. Based on 2016 data, in Pupuan, from 39 subak abian, the area of coffee plantations reached 9,586.31 hectares. Meanwhile, the amount of coffee produced in 2016 was 6,101.61 tons.

Coffee in Bali has developed into both a cultural identity and a leading commodity in the region. The cultivation process, which combines traditional techniques with the application of modern innovations, produces coffee beans with distinctive aroma and flavor that are not only appetizing but also reflect local wisdom. Improving the quality and processing of coffee in Bali is key to maintaining the competitiveness of Balinese coffee products in the global market (Panggabean, 2019).

One of the standout regions in Bali's coffee production is Pupuan, located in Tabanan Regency. In this area, robusta coffee is produced with highly selective bean selection and a processing method that preserves the authenticity of its flavor. Pupuan Bali coffee is known for its distinctive aroma and deep taste, the result of a combination of traditional cultivation techniques and modern innovations applied by local farmers. The quality of Pupuan coffee provides high economic value for farmers while boosting the reputation of Balinese coffee on the global stage (Hartiati et al., 2016).

Pupuan Bali robusta coffee is one of the region's superior local coffee varieties grown in the highlands of Pupuan District, Tabanan Regency, Bali. This area has an altitude of 600–900 meters above sea level, cool air temperatures, and fertile volcanic soil, creating ideal conditions for coffee cultivation. In addition to geographic factors, the farming methods used by Pupuan farmers still uphold the principles of traditional agriculture based on local wisdom passed down through generations. This makes Pupuan coffee not only superior in taste but also a reflection of cultural values and sustainability.

Pupuan Bali robusta coffee was chosen in this research based on several advantages in terms of flavor profile, local availability, and its potential as an ingredient in innovative beverages. Firstly, Pupuan robusta coffee is known for its strong flavor characteristics, with a distinctive level of bitterness and rich aroma. The combination of traditional farming methods with the fertile highland geography of Pupuan produces a coffee flavor profile that is both unique and authentic. This makes Pupuan robusta coffee highly suitable as a main ingredient in the development of innovative coffee-based beverages. Moreover, robusta coffee contains more caffeine than arabica, providing a stronger stimulant effect. This becomes even more appealing when combined with red ginger water, which has warming properties and a refreshing spicy aroma, creating a balanced combination of taste and function.

Batubara (2020) states that in efforts to develop innovative coffee products, the use of natural ingredients such as red ginger has begun to gain attention. Red ginger (*Zingiber officinale* var. *rubrum*) offers numerous health benefits, including aiding digestion, reducing inflammation, and providing a characteristic warming effect. The active compounds such as gingerol and zingerone not only add flavor complexity but also provide added health value. Studies have shown that the use of red ginger in coffee products can result in a unique flavor combination and enhance

the expected health benefits for consumers (Batubara, 2020).

Red ginger water is the result of extracting red ginger through a boiling process, producing a liquid with intense spiciness and a distinctive aroma. The use of red ginger water in coffee preparation aims to balance the bitterness of robusta coffee and add a refreshing spicy warmth. This infusion process not only enhances the flavor of the beverage but also provides additional health benefits, making the combination of coffee and red ginger water an appealing product innovation for modern consumers (Batubara, 2020).

There are various types of manual coffee brewing methods, but the selection of the V60 manual brew method in this study is based on its advantage in producing a cleaner, clearer, and more complex flavor profile. According to the Specialty Coffee Association (2018), the V60 method allows precise control over variables such as water temperature, grind size, and pour rate, all of which contribute to a balanced and optimal extraction. This is important for highlighting the unique flavor profile of Pupuan Bali robusta coffee and maintaining harmony with the warm and spicy taste of red ginger water. Previously, robusta coffee was brewed using the Vietnamese drip method, but this study employs the V60 manual brew method to achieve a cleaner cup of coffee.

The Vietnamese drip method, which tends to produce coffee with a heavier body and a more intense flavor due to its slower extraction process and passive immersion method, contrasts with the V60 method that uses a paper filter capable of filtering out oils and fine grounds. This results in a brew that is lighter on the palate, with greater clarity in taste (Yunanelmi, 2020). Therefore, the V60 manual brew method is chosen not only for its flexibility in the brewing process but also for its ability to express the flavor characteristics of the coffee and its additional ingredients to the fullest. This makes it an ideal method for developing innovative coffee beverages rooted in local wisdom, such as the combination of Pupuan robusta coffee and red ginger.

The relationship between Pupuan Bali coffee, red ginger water, and the V60 manual brew method is expected to result in a high-value coffee product innovation. This is because it not only offers a unique and balanced taste experience but also provides additional health benefits that are highly relevant to current consumption trends. By emphasizing local wisdom and applying modern brewing technologies, this product development is expected to support the growth of the coffee industry in Bali and open new market opportunities at the global level. Based on the problem formulation above, the purpose of this final project research is to find out 'The level of preference for Robusta Pupuan Bali coffee beverage with red ginger water through the V60 manual brew method'

Manual brew is a part of a barista's role that focuses more on and specializes in coffee brewing using manual techniques with various methods offered by the tools used, such as V60, French press, siphon, Aeropress, and cold brew (Maryani, 2019:19). Yunanelmi (2020) in the article *Kopi Petani* stated that the history of the V60 was first introduced by Japan in 1921. The initial design of the V60 tool used porcelain. The product has a cone-shaped bottom. In the 1990s, this idea was redeveloped, but the initial concept of the V60 was still not accepted. It was only in 2004 that the tool using the pourover method was successfully perfected.

Wenny (2022) in her article stated that red ginger originates from the Asia-Pacific region, which later spread from India to China. Both countries are considered

the first to utilize ginger, especially as a raw material for beverages, cooking spices, and traditional medicines. The ginger plant belongs to the Zingiberaceae family and is in the same family as other rhizomes such as Javanese ginger (*Curcuma xanthorrhiza*), black turmeric (*Curcuma aeruginosa*), turmeric (*Curcuma domestica*), aromatic ginger (*Kaempferia galanga*), galangal (*Languas galanga*), and so on.

According to Universitas Muhammadiyah Semarang (2013:1), organoleptic testing is a test based on the sensory process. Sensory perception is defined as a physio-psychological process, namely the awareness or recognition of the senses toward the properties of an object due to received stimuli. According to Permadi et al. (2018:30), organoleptic testing is one of the most primitive types of testing. This test emphasizes the sensory ability of the tester to provide impressions or responses that can be analyzed.

According to Universitas Muhammadiyah Semarang (2013:3), to carry out organoleptic assessment, panelists are required. In the evaluation of quality or the analysis of sensory properties of a commodity, the panel acts as an instrument or tool. These panelists consist of individuals or groups whose task is to assess the characteristics or quality of the commodity based on subjective impressions. A person who is a member of the panel is called a panelist.

In this study, the author uses two sources of indicators from experts: Pallet (2012) and Pangabea (2019:202). The indicators they mention are as follows: According to Pallet (2012), there are several indicators, namely:

- a. Acidity
Acidity describes the level of sourness felt when sipping coffee, the pleasant sour taste at the front of the mouth, the astringent sensation at the tip of the tongue when tasted, and the overall effect on the palate and beneath the edges of the tongue.
- b. Aroma
Emerges during the processing stage. This aroma is created from the processed ingredients of coffee and red ginger, each ingredient having a different aroma. The process and blending method, as well as the coffee bean itself, will determine the resulting aroma.
- c. Colour
Colour is part of the drink's texture and appears when coffee and red ginger ingredients are mixed.
- d. Bitterness
Bitterness describes the bitter taste perceived on the soft palate at the back of the mouth. This bitter sensation is also part of the coffee's flavor profile, but each type of coffee has a different level of bitterness.

According to Pangabea (2019:202), there are six criteria that must be assessed by a cup tester in evaluating coffee:

- e. Fragrance
Fragrance evaluation is usually done when the coffee beans have been roasted or ground into coffee powder. The sweet smell released during grinding can represent acidity, and what is released may reflect a sharp flavor. The smell of coffee is more accurate when the beans have just been ground.
- f. Aroma
Aroma evaluation can be carried out by first brewing the coffee powder, then smelling the aroma released by the coffee. The perceived coffee aroma may

include nutty, fruity, or chocolate-like notes.

g. Taste

Taste evaluation is done by sipping the brewed coffee, then holding it in the mouth for 3–5 seconds so the tongue can assess the basic flavors of the coffee such as bitterness, sweetness, and acidity.

h. Body

Body evaluation can be done by rubbing the tongue against the roof of the mouth after drinking the coffee, leaving an impression of thickness. This thickness reflects the fiber and protein content.

i. Nose

This evaluation is done by smelling the coffee while sipping it. The organic compounds that evaporate from the coffee can be identified more accurately this way.

j. Aftertaste

To determine the aftertaste of brewed coffee, it can be done by inhaling and holding the brew in the mouth for a few seconds while quickly pumping the base of the throat.

From the two sources of indicators above, the author uses six indicators: bitterness, colour, acidity, aroma, body, and aftertaste. These six indicators are considered suitable for use in this study.

2. RESEARCH METHOD

This study employed a quantitative descriptive research design to evaluate consumer acceptance of Pupuan Robusta coffee brewed with red ginger water using the V60 manual brewing method. The research focused on assessing the sensory characteristics of the beverage through an organoleptic (hedonic) test.

The study was conducted at the Bali Tourism Polytechnic, Bali, Indonesia. Product preparation was carried out under controlled conditions before sensory evaluation was conducted in a designated tasting room to ensure a consistent testing environment. The sensory evaluation involved 15 panelists, consisting of three trained panelists (lecturers and professional beverage practitioners) and twelve semi-trained panelists (students with prior knowledge of coffee sensory evaluation). The panelists were selected using purposive sampling, as they possessed sufficient experience to assess coffee quality and sensory attributes objectively.

The coffee beverage was prepared using 15 g of medium-ground Pupuan Robusta coffee brewed with red ginger water as the extraction medium using the V60 pour-over method. The brewing procedure followed standardized brewing practices to ensure consistency in coffee dosage, water temperature, pouring technique, extraction time, and serving conditions throughout the evaluation process.

Consumer acceptance was measured using a five-point hedonic scale, where 1 = strongly dislike, 2 = dislike, 3 = neutral, 4 = like, and 5 = strongly like. Six sensory attributes were evaluated, namely bitterness, colour, acidity, aroma, body, and aftertaste. These sensory indicators were adapted from the coffee sensory evaluation framework proposed by Pallet (2012) and Panggabean (2019), which are widely used in coffee quality assessment.

The collected data were analyzed using descriptive statistical analysis. The mean score for each sensory attribute was calculated to determine the overall level of consumer preference. The mean values were then interpreted using predetermined class intervals, where scores between 4.21–5.00 indicated strongly liked, 3.41–4.20 indicated liked, 2.61–3.40 indicated neutral, 1.81–2.60 indicated disliked, and 1.00–1.80 indicated strongly disliked. The results were subsequently interpreted to identify the most preferred sensory characteristics of the coffee beverage and to evaluate its potential as an innovative coffee product based on local Balinese ingredients.

3. RESULT AND DISCUSSION

3.1 Result

Coffee in Bali has developed into a cultural identity and a leading commodity. Pupuan in Tabanan Regency is one of the prominent Robusta coffee-producing areas, known for its distinctive aroma and flavor. Red ginger (*Zingiber officinale* var. *rubrum*) has many health benefits, such as improving digestion, reducing inflammation, and providing a warming effect. The use of red ginger water in coffee aims to balance the bitterness of Robusta coffee and add a refreshing spicy warmth. The V60 manual brew method is chosen to optimize flavor extraction, producing clean, bright, and complex coffee. The research object examined in this study is Robusta Pupuan Tabanan coffee with red ginger water using the V60 manual brew method.

Table 1. Standard recipe for making Robusta Pupuan coffee beverage with red ginger water

No	Ingredients	Size	Qty	Unit Price	Recipe Price
1	Kopi Robusta Pupuan	Gr	15	Rp. 100.000/ 400 gr	Rp. 3.750
2	Jahe merah	Gr	250	Rp. 55.000/ 500 gr	Rp. 25.250
3	Air	ml	500	Rp. 4.000/ 600 ml	Rp. 3.333
Total				Rp. 159.000	Rp. 32.333

Source: Organoleptic Test (2025)

Red Ginger Water Preparation Process

1. Prepare all the tools and ingredients such as pan, stove, strainer, bottle, red ginger, and water.
2. Clean the red ginger before boiling.
3. Heat the water first, then add the red ginger.
4. Boil for approximately 30 minutes until the ginger aroma comes out.
5. Let it sit until the temperature returns to normal, then pour into a bottle and leave it for 24 hours.
6. The red ginger water is ready to be used for coffee making.

Robusta Pupuan Coffee with Red Ginger Water Using the V60 Manual Brew Method

1. Prepare all the tools and ingredients such as V60, kettle, paper filter, scale, digital timer, Robusta coffee, and red ginger water.
2. Heat the red ginger water using the kettle.
3. Set the V60 on the scale and place the paper filter.
4. Rinse the paper filter with the red ginger water.

5. Add 15 grams of coffee.
6. Slowly pour the heated red ginger water.
7. Wait until all the water has dripped through.
8. Robusta coffee with red ginger water is ready to serve.

The organoleptic test of the Robusta coffee beverage with red ginger water using the manualbrew V60 method was conducted at Saraswati Restaurant, Bali Tourism Polytechnic, on April 30, 2025, from 1:00 PM to 3:00 PM Central Indonesian Time (WITA).

In the preference test of Robusta Pupuan Bali coffee with red ginger water using the V60 manual brew method, 15 panelists consisting of 3 trained panelists (Lecturers from the TAH Study Program and Bartenders) and 12 semi-trained panelists (Students of the TAH Study Program) were invited to give their opinions on their level of liking for the coffee beverage with red ginger water using the V60 method through a questionnaire where questions or statements already had provided answer choices. The details of the panelists involved in this organoleptic test can be seen in the table below.

$$Me = \frac{\sum xi}{n}$$

Description:

Me: Mean (average)

$\sum Xi$: value of the -I data n: number of data points

With the tabulated results obtained from the organoleptic test of panelists' preference levels for Robusta Pupuan coffee with red ginger water using the manual brew V60 method, the results of determining the mean values can be seen in the table below:

Table 2. Average Scores of Robusta Pupuan Coffee Beverage with Red Ginger Water Using the Manualbrew V60 Method

No. Panelis	Ogarnoleptive Evaluation						Total	Rata-Rata
	<i>Bitternes s</i>	<i>Colour</i>	<i>Acidity</i>	<i>Aroma</i>	<i>Body</i>	<i>Aftertaste</i>		
P1	4	4	4	5	4	4	25	4,17
P2	3	4	3	3	4	3	20	3,33
P3	4	5	4	5	3	5	26	4,33
P4	3	5	4	4	4	4	24	4,00
P5	4	5	5	4	4	4	26	4,33
P6	3	4	4	5	3	5	24	4,00
P7	3	4	4	5	4	5	25	4,17
P8	5	5	5	4	4	5	28	4,66
P9	4	4	5	4	4	5	26	4,33
P10	5	5	4	4	4	5	27	4,50
P11	4	5	5	5	4	5	28	4,66
P12	4	5	4	5	5	5	28	4,66
P13	5	4	4	5	3	4	25	4,17
P14	4	4	4	4	4	4	24	4,00
P15	4	4	5	5	3	4	25	4,17
Total	59	67	64	67	57	67	381	
Average	3,93	4,46	4,26	4,46	3,8	4,46	4,23	

Based on the average values from Table above, it can be seen overall that the average scores of each indicator, as stated in the table, show that the highest average scores were achieved by three indicators: colour, aroma, and aftertaste, each with an average score of 4.4. The lowest average score was for the body indicator, with an average value of 3.8.

After the mean values for each indicator have been obtained, the next step is to classify the scores according to the class intervals as follows:

- a. Strongly Dislike, interval 1.00 to <1.80
- b. Dislike, interval 1.81 to <2.60
- c. Neutral, interval 2.61 to <3.40
- d. Like, interval 3.41 to <4.20
- e. Strongly Like, interval 4.21 to <5.00

The next process is to determine the interpretation criteria for the average (mean) values. The interpretation criteria of the mean values in the class intervals can be seen in the following table:

Table 3. Interval Class Results for Robusta Pupuan Coffee Beverage with Red Ginger Water Using the Manualbrew V60 Method

No. Panelis	INDIKATOR PENILAIAN						Total
	<i>Bitterness</i>	<i>Colour</i>	<i>Acidity</i>	<i>Aroma</i>	<i>Body</i>	<i>Aftertaste</i>	
P1	4	4	4	5	4	4	
P2	3	4	3	3	4	3	
P3	4	5	4	5	3	5	
P4	3	5	4	4	4	4	
P5	4	5	5	4	4	4	
P6	3	4	4	5	3	5	
P7	3	4	4	5	4	5	
P8	5	5	5	4	4	5	
P9	4	4	5	4	4	5	
P10	5	5	4	4	4	5	
P11	4	5	5	5	4	5	
P12	4	5	4	5	5	5	
P13	5	4	4	5	3	4	
P14	4	4	4	4	4	4	
P15	4	4	5	5	3	4	
Total	59	67	64	67	57	67	381
Average	3,9	4,4	4,2	4,4	3,8	4,4	4,2
Catadory	Like	Strongly like	Like	Strongly like	Like	Strongly like	

Source: Organoleptic Test (data processed 2025)

From the table above, the interpretation criteria obtained from each mean value on the evaluation aspects of Robusta Pupuan coffee beverage with red ginger water using the manualbrew V60 method indicate that out of 15 panelists, they like the Robusta Pupuan coffee beverage with red ginger water using the manualbrew V60 method.

3.2 Discussion

The present study evaluated consumer acceptance of Pupuan Robusta coffee brewed with red ginger water using the V60 manual brewing method through six sensory attributes: bitterness, colour, acidity, aroma, body, and aftertaste. Overall, the beverage obtained a mean score of 4.2, indicating that the product was generally liked by the panelists. These findings demonstrate that incorporating red ginger water into the brewing process can produce a coffee beverage with high sensory acceptance while maintaining the distinctive characteristics of Pupuan Robusta coffee.

Among the evaluated attributes, colour, aroma, and aftertaste received the highest mean score (4.4), suggesting that these characteristics contributed most significantly to consumer preference. The attractive reddish-brown colour was likely influenced by the natural pigments released from red ginger during extraction, creating a more appealing visual appearance without diminishing the coffee's original character. Visual appearance is one of the first quality cues perceived by consumers and often influences overall product acceptance before tasting.

The high score for aroma indicates that the combination of roasted Robusta coffee and volatile compounds from red ginger created a distinctive and pleasant sensory profile. During brewing, aromatic compounds from coffee interact with bioactive compounds such as gingerol and shogaol found in red ginger, producing a balanced aroma that combines roasted, spicy, and slightly sweet notes. This finding supports previous studies suggesting that herbal ingredients can enhance aroma complexity and increase consumer acceptance of specialty coffee beverages.

Similarly, the excellent aftertaste score suggests that the formulation successfully produced a pleasant lingering flavour without excessive bitterness or an overpowering spicy sensation. Aftertaste is considered one of the most important indicators of coffee quality because it determines the lasting sensory impression after consumption. The balanced finish observed in this study indicates that the proportion of coffee and red ginger water was appropriate, allowing both ingredients to complement rather than dominate each other.

Although the bitterness, acidity, and body attributes were categorized as "liked," their scores were relatively lower than the other sensory attributes. The bitterness score (3.9) reflects the natural characteristics of Robusta coffee, which generally contains higher caffeine and chlorogenic acid levels than Arabica coffee. While bitterness is an expected characteristic of Robusta coffee, excessive roasting may intensify bitter compounds and reduce overall palatability. Therefore, future product development may consider applying a medium roast profile to preserve sweetness and improve flavour balance.

The body attribute obtained the lowest mean score (3.8). This result may be associated with the use of the V60 brewing method, which employs paper filtration to remove suspended particles and coffee oils, producing a cleaner cup but a lighter mouthfeel compared with immersion or metal-filter brewing methods. Additionally, the dilution effect of red ginger water may have reduced the perceived viscosity of the beverage. Adjustments to grind size, coffee-to-water ratio, or brewing time could enhance body while maintaining flavour clarity.

The acidity score (4.2) indicates that panelists appreciated the moderate acidity produced by the combination of Robusta coffee and red ginger water. Although Robusta coffee generally exhibits lower acidity than Arabica coffee, the brewing variables employed in the V60 method, together with the natural compounds present in red ginger,

appeared to generate a balanced acidity that remained acceptable to consumers.

From a product development perspective, the findings demonstrate that integrating local agricultural products such as Pupuan Robusta coffee and red ginger has considerable potential for creating value-added functional beverages. Beyond enhancing sensory quality, red ginger contributes perceived health benefits that align with current consumer preferences for beverages combining flavour with wellness attributes. Consequently, this product innovation may provide opportunities for coffee shops, specialty cafés, and small-scale coffee producers to diversify their menus while promoting local Balinese agricultural products.

Despite these promising findings, the study has several limitations. The sensory evaluation involved only 15 panelists, limiting the generalizability of the results. Furthermore, the analysis relied solely on descriptive statistics without inferential testing. Future studies should include a larger and more diverse consumer sample, compare different concentrations of red ginger, investigate various roast profiles and brewing methods, and employ inferential statistical analyses to determine significant differences among sensory attributes. Chemical analyses of volatile compounds and antioxidant activity would also provide valuable information regarding the functional properties of the beverage.

Overall, this study demonstrates that brewing Pupuan Robusta coffee with red ginger water using the V60 method is a promising innovation capable of producing a distinctive coffee beverage with favourable consumer acceptance. The combination successfully preserves the characteristic flavour of local Robusta coffee while introducing additional sensory complexity and potential functional value, thereby supporting the development of innovative coffee products based on local Indonesian resources.

4. CONCLUSION

Based on the analysis in Chapter IV, the preference level of panelists for Robusta Pupuan Bali coffee with red ginger water using the manualbrew V60 method obtained an overall average score of 4.2 with a "like" interpretation. Three indicators Colour, Aroma, and Aftertaste received a "very like" score with a mean of 4.4, while Bitterness, Acidity, and Body received a "like" score with means of 3.9, 4.2, and 3.8, respectively. The preference test results from 15 panelists show a good acceptance level, with most liking the colour, aroma, and aftertaste, especially the combination of the characteristic bitter taste of robusta and the warm sensation of red ginger. This proves the potential of Robusta Pupuan coffee to be developed as an innovative beverage favored by consumers, especially with manualbrew brewing techniques such as V60. The bitterness indicator received the lowest score because the coffee beans were roasted too long, which can be overcome by using a medium or medium-light roast level so that the bitter taste is not dominant. The acidity indicator was also low due to excessive use of coffee beans and red ginger, so it is necessary to evaluate the red ginger content because the spice affects the perception of acidity. The body indicator was low due to the coffee grind being insufficiently fine, so grinding at the appropriate fineness level is needed for optimal extraction. Further research is recommended to explore the infusion method of Robusta Pupuan Bali coffee beans directly with red ginger to achieve optimal flavor and enrich the sensory characteristics of the beverage.

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