



Consumer Preferences on Processed Herbs and Spices Products of SMEs in Sukoharjo

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Abstract

The demand for herbs and spices products in Indonesia has been steadily increasing each year, especially since the pandemic of COVID-19 pandemic. Information from various media about the benefits of herbs and spices for maintaining health and body stamina has encouraged people to consume the products and their derivations forms. The emergence of various processed herbs and spices products requires producers to better understand consumer behavior. This research aims to understand the decision-making process of purchasing and consumer preferences for processed spice and herbal products produced by SMEs (Micro, Small, and Medium Enterprises) in Sukoharjo Regency. The research involved 103 respondents from Sukoharjo Regency who have consumed herbs and spices products made by SMEs during the last three months. Descriptive methods were conducted through direct interviews with consumers using questionnaires, while conjoint analysis was used to determine the attributes most considered by consumers when making a purchase. The research findings show that the characteristics of consumers of processed herbs and spices products in Sukoharjo Regency are generally dominated by females, aged 17 to 25 years, mainly students, with a monthly income of around IDR 2,000,000. There are three main attributes considered when selecting products, namely taste (23,2%), sugar content (19,1%), and serving forms (12,4%), while the brand attribute has the lowest importance value at 9,4%.

Keywords: Herbs and spices, Conjoint analysis, Consumer preference, Full profile

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1. Introduction

The use of spices and herbs in the culinary arts is widely recognized. Apart from being food-related, spices have long been used as herbs, cosmetics, and antimicrobials. With the increasing human awareness of health and the important role of plant-based health, the consumption of food and beverages made from spices and herbs is currently starting to emerge and become dishes in culinary tourism, including bandrek bajigur hanjuang, sekoteng, and others [1]. A research emphasize the increased demand for pharmaceutical products, including supplements, vitamins, and medical devices, which has strained the drug supply chain. This demonstrates a shift in consumer behavior towards health-related products during the pandemic.

Consumer preference plays a pivotal role in shaping the market landscape. It is an attitude towards brand product choice formed through the evaluation of various brands in various available options [2]. Preferences are shaped by attributes inherent in the product, factors that consumers consider when making decisions about purchasing a product [3]. The emergence of various diseases, including the COVID-19 pandemic, has heightened people's concern about health, leading to increased demand for spice and herb products recommended by the Ministry of Health to maintain body stamina during the pandemic [4].

Over the past three years, precisely since the COVID-19 case became more widespread in Indonesia, the demand for spice and herb products has surged. This surge is attributed to information from various media regarding the benefits of spices and herbs in maintaining health and stamina during the pandemic [5]. The Sukoharjo Regency Government through Regent Decree Number: 500/1452/V/2021, recognizing the importance of herbal medicine, promotes the Jamu Drinking Movement as a form of COVID-19 prevention while supporting the development of a herbal medicine cluster of local SMEs. This initiative has significantly boosted the consumption of spice and herb products, particularly in Sukoharjo, where there are 3,085 herbal MSMEs [6]. This of course has an impact on increasing the consumption of spice and herb products in Sukoharjo, which is the main ingredient of jamu. A research aim to analyze the factors influencing consumer consumption of spices (Jamu) post-pandemic, indicating a potential shift in consumer preferences and behaviors [7].

Spices are parts of plants that originate from various parts such as stems, leaves, bark, bulbs, rhizomes, roots, seeds, flowers, or other parts of plant bodies. These plant parts contain phytochemical compounds produced by plants as part of their metabolism. Meanwhile, herbs are plants recognized and associated with their use in maintaining vitality and health of plants as well as curing various diseases [8]. The inelastic nature of spice demand from Asia, positioning Asian countries as primary suppliers of spices, which may have implications for the demand for Indonesian spices. Moreover, the potential for herbal products, including traditional jamu, enhance immunity and reduce the risk of COVID-19, indicating a potential increase in demand for such products.

The emergence of various kinds of processed spice and herb products requires producers to better understand consumer behavior. The pandemic has not only caused changes in consumer behavior but also in financial conditions and people's spending priorities. Consumers have many choices to determine the type of product to buy. Various brands of processed spice products offered on the market cause consumers tend to have certain preferences before carrying out the decision-making process [9]. Along with changes in lifestyles, preferences, priorities, and patterns of public purchasing decision-making in the new normal era, producers must be innovative in creating new patterns in marketing their products.

The preferences of consumers regarding processed spice and herb products, especially those produced by local SMEs in Sukoharjo Regency, are crucial for producers to understand [9]. Consumers require accurate and detailed information about the production, packaging, contents, uses, and pricing of processed spice products and spices [10]. Additionally, consumer preferences lean towards herbal products in liquid ready-to-drink form, with a sweet taste, offering benefits tailored to body needs, and priced at less than Rp 10,000.00 per 350 ml bottle. Purchase decisions are influenced by various factors including halal labels, product prices, taste, benefits, ease of access, proximity to the seller, information in brochures, recommendations from friends, and the concept of back to nature [11].

The results of this study will later have long-term implications on improving the competitiveness of local products providing an updated analysis of consumer preferences towards processed spice products from MSMEs in Sukoharjo can assist producers in improving the quality, packaging, and innovation of their products. This can strengthen the competitiveness of local products in both domestic and international markets, thus providing long-term benefits for MSMEs in increasing their market share and income. In conclusion, understanding consumer preferences is vital for producers to tailor their strategies and offerings to meet consumer needs effectively. By aligning products with consumer desires and leveraging differentiation strategies, producers can capitalize on the growing demand for spice and herb products, particularly amidst health concerns such as those brought about by the COVID-19 pandemic.

2. Research Methods

The research was carried out in Sukoharjo Regency, which is a center of Traditional Herbal Medicine (Jamu) SMEs in Central Java. The respondent selection was done using a simple random sampling method. The minimum sample size for multivariate analysis research is 10 times the number of variables studied [12]. The criteria for selecting respondents in this study were those who have consumed processed spice and herbal products at least once within the last three months. The number of variables to be used in this study is 7, so the minimum number of respondents in this study is 70 people. Researchers added 33 respondents to make a total of 103 respondents to achieve a more diverse consumer data distribution. The data collection process was conducted from October to December 2022.

Primary data collection in this study was carried out by distributing questionnaires to respondents consisting of two parts: the first part consisted of questions about the characteristics of consumers of processed spice and herbal products, and the second part about consumer preferences towards processed spice and herbal products. The second part was filled by giving ratings to combinations of available products on a scale of 1 to 5 for combinations of attributes from least preferred to most preferred.

This study used a combination of seven attributes of processed spice and herbal products, namely taste, aroma, sugar content, presentation form, distribution permit, halal label, and price. The predetermined attributes and levels were used to compose stimuli as combinations of attribute levels. The number of attribute levels will affect the number of stimuli evaluated by respondents.

Analysis of consumer characteristics and purchasing behavior of processed spice and herbal products was conducted using descriptive statistics. Meanwhile, consumer preferences were analyzed using conjoint analysis with a full-profile approach. Conjoint analysis describes the nature or conditions of consumer preferences based on consumer trade-off analysis of various product attributes. The conjoint model assumes that products can be

defined as a series of specific attribute levels, and total consumer utility is determined by the partial utilities (part-worths) contributed by each attribute level. This analysis can provide identification of the most preferred attribute combinations by consumers and identification of the relative importance of each attribute [13]. The results of conjoint analysis will be used to measure the utility and importance value of each analyzed attribute.

3. Results and Discussion

Sukoharjo Regency is a center of jamu (traditional Javanese medicine) in Central Java and also a national Jamu tourism destination with 3,085 Jamu SMEs clusters spread across 12 districts, indicating a high potential for spice and herbal product consumption among the local populace. This is supported by the Regent's Decree Number: 500/1452/V/2021 concerning the Jamu Drinking Movement for all Regional Apparatus Organizations (OPDs), Regional-Owned Enterprises (BUMDs), and private institutions.

In Sukoharjo Regency, spice and herbal products have been processed into modern forms and are often served as light beverages. The market potential for herbal Jamu products in Sukoharjo Regency tends to increase every year [14]. In 2019, PT. Konimex, in collaboration with the Sukoharjo Regency Government and BPOM RI, opened a Jamu Cafe as an effort to preserve traditional herbal Jamu and as a campaign to encourage young people to consume Jamu presented to suit the taste of millennials.

Characteristics of Consumers of Processed Spice and Herbal Products

Consumers of processed spice and herbal products in Sukoharjo Regency are predominantly female, accounting for 76% of the total respondents. Women are more easily attracted to trying out new products due to attractive advertising and product displays [15]. Women tend to consider product attributes in detail before consumption. Similar sentiments were also expressed that most female consumers have a high preference for a product based on its quality and price [16].

One's income level influences a consumer's purchasing power for a product. About 83.5% of consumers have a monthly income below 2 million with expenditures of less than 1 million per month. This is because consumers of processed spice and herbal products in Sukoharjo Regency are predominantly millennials aged 17-25, accounting for 64%. They come from the student demographic, which comprises millennials with limited income. The allowance possessed by consumers can influence their decision to purchase a product. There are several factors considered by consumers before deciding to buy a product, including price and product quality. Consumers will prioritize the price of a product according to their available funds and priority needs. This presents an opportunity for the spice and herbal processing industry to develop their products with appropriate pricing strategies to target the millennial demographic.

Purchasing Behaviour of Processed Spice and Herbal Products

Based on the survey results, it was found that 100% of respondents consumed processed spice and herbal products in the last month, with the majority purchasing 1-3 times a month. Motivations for consuming these products vary considerably. 60.2% of respondents stated that they consume processed spice/herbal products to fulfill their daily needs for supplements, boosters, and vitamins, while 23.3% consume them as light beverages, and the remainder use them as medicine.

There are several locations where processed spice and herbal products can be purchased in Sukoharjo. 71.8% of respondents obtain these products from traditional markets, while others purchase them online. Sukoharjo Regency, also known as a center for processed spice and herbal products and Jamu in the Solo Raya region, has a traditional market in the Nguter District, called Nguter Market. According to a research, 62.5% of traders at Nguter Market sell Jamu, with 48.6% of the products originating locally from Sukoharjo Regency [17]. 80.5% of traders in the market are residents of Nguter Village. 48.5% of respondents prefer processed spice and herbal products in liquid ready-to-drink form, while 18.4% prefer products in capsule form, 14.6% prefer powder, 10.7% prefer dried form (simplicia), and 7.8% prefer products in syrup form.

This research analyzes consumer preferences for processed spice and herbal products using 7 attributes: taste, aroma, sugar content, serving form, brand, distribution permit, and price as listed in Table 2. The taste attribute uses three levels: sweet, sour, and bitter. Meanwhile, the aroma attribute employs three levels: fruity, spicy, and no aroma. The sugar content attribute has three levels: high, moderate, and low. The serving form attribute has three levels: mixed, ready-to-serve, and instant. The brand attribute uses two levels: branded and unbranded. The distribution permit attribute also has two levels: permitted and unpermitted. Lastly, the price attribute has three levels: over Rp 15,000, between Rp 10,000 - Rp 15,000, and less than Rp 10,000.

Based on the analysis of stimuli, 27 combinations of stimulus attributes were obtained, which were then used in the questionnaire. Subsequently, consumer preferences for processed spice and herbal products were analyzed using conjoint analysis to determine the relative importance level and utility value of product attributes. The results of the conjoint analysis can be seen in Table 1.

Table 1. The Result of Conjoint Analysis on 7 Attributes of Processed Spice and Herbal Products of SMEs in Sukoharjo

Attributes	Importance Value (Rank)	Level	Utility	Consumer Preference
Taste	23.224 (1)	Sweet	.005	Sour
		Sour	.620	
		Bitter	-.625	
Aroma	11.712 (6)	Fruit	-.003	Spicy
		Spicy	.178	
		No aroma	-.175	
Sugar Content	19.069 (2)	Concentrated (>10 %)	.148	Moderate
		Moderate (5 - 10%)	.352	
		Low (<5%)	-.500	
Serving Form	12.445 (3)	Mixed	-.270	Ready to Serve
		Ready to Serve	.138	
		Instant	.132	
Brand	9.451 (7)	Branded	.149	Branded
		Unbranded	-.149	
Distribution Permit	12.080 (4)	Available	.339	Available
		None	-.339	
Price	12.019 (5)	> Rp 15.000	-.242	< Rp 10.000
		Rp 10.000 - Rp 15.000	-.007	
		<Rp 10.000	.248	

*) Source: Primary Data Analysis 2022

From Table 1, it can be seen that the most important attribute for consumers in purchasing processed spice and herbal products produced by SMEs in Sukoharjo Regency is the taste attribute, with the highest importance value of 23.2%, followed by the sugar content attribute at 19.1%, and the serving form attribute at 12.4%. Meanwhile, the attribute with the lowest importance value is the brand attribute at 9.4%.

This illustrates the primary preference of teenage consumers in determining their choices of products based on taste. Taste is the primary attribute considered by consumers because it is a fundamental human trait when it comes to food and beverage consumption [18]. Food and beverage preferences are heavily influenced by taste, and a taste deemed appropriate serves as a guarantee that a product will continue to be favored by consumers, especially teenagers. Taste attribute is related to the level of consumer trust in the product. This attribute plays a crucial role in determining overall satisfaction and beverage satisfaction. Taste perception is influenced by various factors, including color, aroma, and texture [19]. However, taste itself is the most basic aspect that directly affects human sensory experience.

On the other hand, taste is a more complex perception involving basic sensations perceived by the tongue, such as sweet, salty, sour, and bitter [20]. Although taste can enhance the overall beverage experience, taste remains the primary factor determining our liking or preference for a particular beverage [21]. Moreover, taste is closely related to our physiological responses and can impact our health and well-being. For example, the taste of some herbs and spices in traditional beverages may provide potential health benefits due to their bioactive compounds

[22]. These compounds contribute to the flavor profile of the beverage while offering potential therapeutic effects.

Furthermore, consumer preferences for the most preferred sub-attributes (levels) are examined based on the utility value of a product. The utility value of each level or sub-attribute of the product type attribute shows that consumers prefer processed spice and herbal products with the sour taste sub-attribute, with a utility value of 0.62, moderate sugar content with a utility value of 0.35, and ready-to-serve with a utility value of 0.13. This is supported by a survey conducted by Jakpat with 2,732 respondents from across Indonesia from March 14 to 16, 2022, analyzing Indonesian society's behavior or habits regarding the consumption of flavored drinks, which stated that the majority of respondents tend to consume flavored drinks with normal sweetness levels and less sugar. The percentage of respondents consuming flavored drinks with normal sweetness levels reached 69%, and those consuming flavored drinks with less sugar content was 51%.

Consumer preferences for the serving form of processed spice and herbal products are also dominated by the ready-to-serve form, accounting for 64%. This is also supported by the increasing number of processed spice and herbal products served in cafes and restaurants in Sukoharjo Regency as ready-to-serve refreshing beverages suitable for daily consumption with a combination of moderate sweet-sour flavors. In their presentation, sugar is often served separately so that consumers can add it according to their desired sweetness level.

The next attribute is the distribution permit. This attribute ranks fourth in importance after the serving form. From the survey conducted, consumers stated that they prefer products with permits such as P-IRT or BPOM. P-IRT and BPOM licenses influence consumer preferences. P-IRT and halal certification, regulated by BPOM, can enhance consumer trust and purchase interest in snack products [23]. Moreover, BPOM plays a crucial role in ensuring the safety and quality of processed food and medicines, which can affect consumer preferences [24]. Overall, these factors indicate that P-IRT and BPOM have a significant influence on consumer preferences for processed products.

Price is an attribute that is still considered by consumers in fifth place after the distribution permit. Consumers are willing to pay 10% more to get products that match their tastes and preferences [25]. Consumers of processed spice and herbal products in Sukoharjo Regency choose the lowest price option, i.e., < Rp 10,000. Price affordability significantly affects consumer interest in purchasing a product [26]. The results of this study also support another research, which stated that the price attribute is one of the factors considered by consumers in deciding to purchase a product. The price attribute is considered important because consumers have different purchasing power, so they must consider the price of a product before deciding to make a purchase. The price attribute influences consumers' willingness to pay for a product [27].

The next important attribute is aroma. Consumers prefer processed spice and herbal products with the original aroma, i.e., spice. Consumers favor the aroma of spices in traditional beverages for several reasons. First, spices are known for their unique and delicious flavors, which enhance the overall sensory experience of the beverage. The aroma of spices can also evoke feelings of nostalgia and memories associated with specific cultures or cuisines. Additionally, some spices have been found to have potential health benefits, such as anti-inflammatory and antioxidant properties [28]. These factors contribute to the appeal of spices in traditional beverages.

However, aroma only ranks sixth after taste. Taste perception is influenced by various factors, such as the composition of the beverage itself. The presence of certain sugars and organic acids can have a significant impact on the overall taste of a beverage [29]. Overall, this research can provide long-term implementation that positively impacts Sukoharjo's local economy by strengthening the MSME sector, increasing household income, and creating new jobs. By encouraging sustainable MSME growth and product innovation, this research can contribute to inclusive and sustainable economic development at the local level.

Finally, the last attribute considered by consumers in this case is the brand. Consumers do not perceive the brand attribute as the primary preference in consuming food and beverage products from SMEs (Small, and Medium Enterprises) due to several reasons such as price perception and appearance, in this case, serving form, which plays a significant role in purchase interest [30]. This indicates that consumers prioritize affordable prices and the value of a product over brand attributes. Previously, another research also found that consumer preferences for fresh products are influenced by food safety labels rather than brand names [31]. This indicates that consumers prioritize the safety and quality of products over brand recognition. The limitation of this study lies in the generalisability of the results. As this study focused on consumers in Sukoharjo, the results may not be directly applicable to consumer populations in other regions or international markets. Therefore, it should be kept in mind that the findings of this study only reflect the preferences of consumers in the area under study.

3. Conclusion

Based on the research findings and analysis conducted, it can be concluded that the characteristics of consumers of processed spice and herbal products in Sukoharjo Regency are generally dominated by women aged 17-25 years from the student demographic with a monthly income below Rp 2,000,000. The three main attributes considered in product selection are taste attributes with the highest importance value of 23.2%, with the sub-attribute having a utility value of 0.62; followed by the sugar content attribute at 19.1% with the moderate sugar content sub-attribute having a utility value of 0.35, and the serving form attribute at 12.4% with the ready-to-serve sub-attribute having a utility value of 0.13. Meanwhile, the attribute with the lowest importance value is the brand with a value of 9.4%.

References

- [1] S. A. Marliyati, T. D. Hastuti, and Sinaga, "Ecoculinary Tourism in Indonesia," in F. Teguh and R. Avenzora (Eds), *Ecotourism and Sustainable Tourism Development in Indonesia*, Ministry of Tourism and Creative Economy, Republic of Indonesia, 2013.
- [2] A. Hasanah and T. I. Noor, "Analisis Preferensi Rumah Tangga terhadap Produk Jamu Selama Masa Pandemi Covid-19 di Rumah Tangga Kelurahan Baktijaya Kecamatan Sukmajaya Depok," *Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, vol. 7, no. 2, 2021.
- [3] P. Kotler and K. L. Keller, *Marketing Management*, Pearson Education, London, 2016.
- [4] R. Ryadha, "Potensi Rempah-rempah sebagai Minuman Fungsional Sumber Antioksidan dalam Menghadapi Pandemi Covid-19," *Jurnal ABDI (Sosial, Budaya, dan Sains)*, vol. 3, no. 1, pp. 1-10, 2021.
- [5] M. S. Perdani and A. K. Hasibuan, "Analisis Informasi Tanaman Herbal Melalui Media Sosial di Tengah Masyarakat pada Pandemi Covid-19: Sebuah Tinjauan Literatur," *Bencoolen Journal of Pharmacy*.
- [6] "Database Bidang UKM," *Dinas Perdagangan, Koperasi dan UKM Kabupaten Sukoharjo*, Sukoharjo, 2022.
- [7] M. F. Wardana, "Preferensi Masyarakat dalam Mengonsumsi Produk Rempah (Jamu) untuk Meningkatkan Imun Tubuh Pasca Pandemi," Skripsi, Universitas Islam Malang, 2022.
- [8] L. Hakim, *Rempah dan Herba Kebun Pekarangan Rumah Masyarakat: Keragaman, Sumber Fitofarmaka dan Wisata Kesehatan-Kebugaran*, Diandra Creative, Yogyakarta, 2015.
- [9] I. Novita, H. Miftah, M. Sunaryo, and Abdurrohman, "Preferensi Konsumen dalam Pembelian Obat Herbal Kunyit Putih," *Jurnal Agribisains*, vol. 6, no. 2, 2020.
- [10] N. L. A. Ahli dan K. Sisilia, "Analisis Profil Konsumen Pengguna Produk Rempah dan hasil Olahan Rempah," *Jurnal Ilmiah Manajemen, Ekonomi, dan Akuntansi*, vol. 5, no. 3, 2021, doi: 10.31955/mea.v5i3.1422.
- [11] R. Dewati dan W. A. Saputro, "Persepsi Konsumen Terhadap Pembelian Produk Herbal di Kabupaten Sukoharjo," *Agrisaintifika Jurnal Ilmu-Ilmu Pertanian*, vol. 4, no. 2, 2020, doi: 10.32585/ags.v4i2.889.
- [12] Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*, Alfabet, Bandung, 2019.
- [13] W. Adiyoga dan N. Nurmalinga, "Analisis Konjoin Preferensi Konsumen terhadap Atribut Produk Kentang, Bawang Merah, dan Cabai Merah," *Jurnal Hortikultura*, vol. 22, no. 3, pp. 292-302, 2012.
- [14] D. T. Astuti, Mohammad Harisudin, dan R. R. A. Qonita, "Purchase Decision and Customer Satisfaction Kafe jamu in Nguter District, Sukoharjo Regency," *Agrisociconomics Jurnal Sosial Ekonomi Kebijakan Pertanian*, vol. 6, no. 1, pp. 160-173, 2021.
- [15] D. P. Sihombing, "Analysis of Customer Satisfaction and Loyalty Levels at Dillenia Kitchen Restaurant, Bogor, West Java," Thesis, Undergraduate Program, Bogor Agricultural University, Bogor, 2016.
- [16] N. A. Shafira, E. Rasmikayati, & B. Saefudin, "Analisis preferensi konsumen terhadap produk olahan mangga," *Mimbar Agribisnis Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, vol. 7, no. 2, pp. 1033, 2021, doi:10.25157/ma.v7i2.4985.
- [17] Purnomo, A. A. (2021). Keterjangkauan Pelayanan Padan Nguter di Kecamatan Sukoharjo Tahun 2002. *Skripsi*. Universitas Muhammadiyah Surakarta. Surakarta
- [18] A. Rante, "Pengaruh Kompensasi Finansial dan Pengembangan Karir terhadap Kepuasan Kerja Pegawai di Sekretariat Daerah Kabupaten Lanny Jaya," *Jurnal Ekonomi dan Bisnis*, 2015.
- [19] C. Spence, "On the relationship(s) between color and taste/flavor," *Experimental Psychology (Formerly Zeitschrift Für Experimentelle Psychologie)*, vol. 66, no. 2, pp. 99-111, 2019, doi:10.1027/1618-3169/a000439.
- [20] C. Spence, C. Levitan, M. Shankar, dan M. Zampini, "Does food color influence taste and flavor perception in humans?," *Chemosensory Perception*, vol. 3, no. 1, pp. 68-84, 2010, doi:10.1007/s12078-010-9067-z.
- [21] A. Woods, E. Poliakoff, D. Lloyd, G. Dijksterhuis, dan A. Thomas, "Flavor expectation: the effect of assuming homogeneity on drink perception," *Chemosensory Perception*, vol. 3, no. 3-4, pp. 174-181, 2010, doi:10.1007/s12078-010-9080-2.
- [22] V. Wilianto dan E. Ervina, "Evaluating consumer preferences based on the total antioxidant activity of the Indonesian herbal drink 'bandrek'," *IOP Conference Series: Earth and Environmental Science*, vol. 1169, no. 1, 2023, doi:10.1088/1755-1315/1169/1/012090.
- [23] A. Macmud dan Bustaman, "Pirt licensing assistance and halal certification of snack products for smes in panembahan

- village, plered district, cirebon district," *Asian Journal of Community Services*, vol. 1, no. 5, pp. 269-282, 2022, doi:10.55927/ajcs.v1i5.1891.
- [24] I. Kurniawan dan I. Wiryawan, "Regulation of sanctions in increasing supervision of the food and drug supervisory agency (BPOM) against the circulation of food and drugs containing hazardous materials," *Journal of Social Sciences and Management Studies*, vol. 1, no. 2, pp. 69-76, 2022, doi:10.56556/jssms.v1i2.175.
- [25] R. F. Sari, W. Anggun, N. Pujiati, N. Laily, V. Y. Anhar, L. Anggraini, M. Azmiyanoor, A. M. Ridwan, dan F. I. Muddin, "Perilaku Pencegahan Covid-19 Ditinjau dari Karakteristik Individu dan Sikap Masyarakat," *Jurnal Penelitian dan Pengembangan Kesehatan Masyarakat Indonesia*, vol. 1, no. 1, pp. 32–37, 2020.
- [26] M. Kurnianto dan I. Widiyanto, "Pengaruh Etnosentrisme Konsumen, Persepsi Harga Dan Kemenarikan Atribut Terhadap Sikap Produk dan Implikasinya Terhadap Keputusan Pembelian di Indonesia," *Diponegoro Journal of Management*, vol. 4, no. 4, pp. 655-667, 2015.
- [27] R. S. Natawidjaja, L. Sulistiowaty, K. Kusno, D. Aryani, & B. Rachmat, "Analisis Preferensi, Kepuasan, dan Ketersediaan Konsumen Membayar Beras di Kota Bandung," 2017.
- [28] A. Trajkovska-Broach dan A. Petkoska, "Mediterranean herbs, spices, and medicinal plants—natural remedies and rich sources of bioactive compounds," *JSFA Reports*, vol. 3, no. 1, pp. 4-12, 2022, doi:10.1002/jsf2.96.
- [29] L. Dias, C. Sequeira, A. Veloso, J. Morais, M. Sousa, & A. Peres, "A size exclusion HPLC method for evaluating the individual impacts of sugars and organic acids on beverage global taste by means of calculated dose-over-threshold values," *Chromatography*, vol. 1, no. 3, pp. 141-158, 2014, doi:10.3390/chromatography1030141.
- [30] Y. Yasri, P. Susanto, M. Hoque, & M. Gusti, "Price perception and price appearance on repurchase intention of Gen Y: do brand experience and brand preference mediate?," *Heliyon*, vol. 6, no. 11, 2020, doi:10.1016/j.heliyon.2020.e05532.
- [31] S. Yin, W. Hu, Y. Chen, F. Han, Y. Wang, & M. Chen, "Chinese consumer preferences for fresh produce: interaction between food safety labels and brands," *Agribusiness*, vol. 35, no. 1, pp. 53-68, 2018, doi:10.1002/agr.21585.