



The Chemical Science of Javanese Herbal Medicine (*Jamu Jawa*) as a Tourism Potential in Karangrejek, Wonosari, Yogyakarta

Trisanti^{1*}, Sujarwo¹, Fitta Ummaya Santi¹, Yudan Hermawan¹

¹ Faculty of Education Science and Psychology, Universitas Negeri Yogyakarta

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Corresponding Author:
Trisanti
trisanti@uny.ac.id

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Abstract: The purpose of this research is to describe the elements of Javanese, Medicine. *Jamu* has been a part of Indonesian life for hundreds of years, especially in Java. Javanese *Jamu* is an herbal drink made from various local medicinal plants, such as turmeric, *temulawak*, ginger, *kencur*, and many more. This concoction is believed to have health benefits, ranging from maintaining immunity to helping cure various minor ailments. The study method used is descriptive qualitative method and tends to use analysis. The theoretical basis is used as a basic reference in preparing the study report to match the conditions in the field. In addition, the theoretical basis can also provide an overview of the background of the study as material for discussion. The ability to collect data is an important factor in determining the validation of the study conducted. Data collection in this case is obtained secondarily, namely through documents or literature studies. The results of the study found that *jamu* as a tourist attraction has shown various benefits and potential that can support cultural and health tourism in Indonesia. With its background as a traditional medicinal plant-based drink that has been used by Javanese people for centuries, *jamu* not only provides health benefits but also has cultural and economic appeal.

Keywords: *Jamu* Java; Herbal medicine; Science; Tourism.

Introduction

Research on *jamu* as a tourist attraction has shown various benefits and potential that can support cultural and health tourism in Indonesia. With its background as a traditional medicinal plant-based drink that has been used by Javanese people for centuries, *jamu* not only provides health benefits but also has cultural and economic appeal (Prodjosantoso et al., 2023). Village tourism in essence does not change what already exists in the community but rather to explore all the potential in the village by utilizing the ability of the elements in the village that function as tourism products and become a series of tourism activities and are able to provide also fulfil a series of what the needs of tourist travel both in aspects of attraction and as tourist support facilities (Afliansyah, 2022; Salam, 2021).

Tourism attraction is everything that has uniqueness, value and convenience in the form of natural diversity, culture and man-made products that become tourist visits (Indonesian Law Number 10 of 2009). The above definition indicates that a tourist attraction is anything or object that can be used as a commodity for a tourism industry because it has uniqueness, distinctiveness, as an attraction for tourists (Suharto, 2019).

The majority of traditional herbal medicine crafters in this village still use the old pattern, both in the manufacturing process and the sales process. The manufacturing process is still done manually, where recipes, doses and so on are obtained from the legacy of previous generations, and or by trial and error. There is no standardized portion, ingredients, or method of production. In fact, if there is special assistance, the

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existence of *jamu* as a traditional drink really brings a role to this nation in an effort to help overcome the pandemic (Elingsetyo Sanubari et al., 2022; Kartinawati et al., 2022; Surya et al., 2024).



Figure 1. Composition of *Jamu* Jawa Herbal Medicine (Source: <https://www.google.com>)

Karangrejek is a hamlet that has the potential to support the development of the visit Karangrejek programme. This study aims to reveal the tourism potential of Karangrejek as an effort to support the visit Karangrejek programme. The tourism potential of Karangrejek includes cultural potential, natural potential and culinary potential. Cultural potential in the form of wayang, gadon, keroncong, reog gunugkidulan, campur sari gejog lesung. Natural potential in the form of natural beauty in Karangrejek hamlet, agriculture (farm) and fishing. Meanwhile, the culinary potential is in the form of tempe garit, Javanese herbal medicine, gudeg, poci gula batu tea and market snacks (Rubiyanto et al., 2024).

The herbal tourism experience generally begins with a tour of the fields or gardens where various medicinal plants are grown. At this location, travellers can see natural ingredients such as turmeric, ginger and temulawak in their fresh state. Guides or locals will explain the benefits of each plant, how to harvest them, and how they are processed into basic herbal ingredients. Travellers are often invited to interact directly with nature, touching and even picking the plants for further processing.

After collecting the basic ingredients, travellers are taken to a *jamu* production site, where they can learn the traditional way of making *jamu*. This process is generally done with simple tools, such as cobek and lumpang, which adds to the uniqueness of the experience. Travellers will see that the process of making *jamu* requires special skills and traditional techniques that

have been passed down through generations. They can learn directly from the *jamu* artisans about the proper blending techniques so that the *jamu* is not only pleasant to drink but also provides optimal benefits (Sanubari et al., 2022).

This is an initiated that herbal village through training to the community by providing several directions in the processing of medicinal plant ingredients, cultivation of medicinal plants and how to promote them. Focusing on promotion, digital literacy is needed to improve community skills. Digital literacy in this activity is social media, because social media is increasingly used as a channel to promote tourism (Harsani et al., 2023).

Method

This research is research using a qualitative approach. This study uses a qualitative approach with qualitative descriptive methods to describe, describe and describe the learning needs of tourism-aware groups in the tourist cave of Tritis. Qualitative research in the field of education that was conducted by the researchers looked at the respondents as the subject, asked about something ordinary, collected data that mostly consisted of sentences emerging from the respondents, explained and analyzed the theme of the sentence, and conducted investigations in a more subjective manner (Cresswell, 2012).

The data collection techniques used included interviews with the experts of hills. Observations were also made to determine the truth of the answers provided by informant. Data collected in this study is qualitative data in the form of words or phrases that were obtained during the study. Qualitative data analysis was performed through data reduction procedures, data display, and conclusion drawing (Miles, 2015). As for the validity of data triangulation techniques, sources and methods will be used in this study.

The partners in this activity are unproductive partners (village government), and partners leading to productive *jamu* crafters. On average, the crafters do not have employees but everything is done by themselves or assisted by family members (*jamu* gendong crafters) (Suryani, 2024). The problems faced are in production and marketing (digital). Production problems can be solved with training, counselling, and assistance in the production of traditional herbal medicine that refers to the Traditional Medicine Manufacturing Method (CPOT), so that the herbal drinks produced by residents are guaranteed safety, efficacy, and benefits. However, we will not work on that yet (Kusumaningrum et al., 2022).

Result and Discussion

Jamu has been a part of Indonesian life for hundreds of years, especially in Java. Javanese *Jamu* is an herbal drink made from various local medicinal plants, such as turmeric, temulawak, ginger, kencur, and many more (Husain et al., 2021; Khiyaaroh & Triratnawati, 2021). This concoction is believed to have health benefits, ranging from maintaining immunity to helping cure various minor ailments. With a long history and rich cultural heritage, *jamu* is now evolving not only as a traditional medicine but also as a unique tourist attraction.

Amidst the trend of healthy lifestyles and the search for safer natural medicine, Javanese *jamu* is increasingly attracting the attention of domestic and foreign tourists. Travellers come not only to experience the health benefits of *jamu*, but also to learn about the process and culture behind it. Visiting places where *jamu* is produced gives them an authentic experience that they can't get anywhere else (Pratiwi et al., 2023).

Herbal medicine tourism in Java offers various types of herbs with various properties. For example, the tamarind turmeric *jamu* that works to maintain healthy skin and reduce inflammation, or the kencur rice *jamu* that is beneficial for improving stamina and body health. Travellers who are interested in natural health are usually very enthusiastic about tasting these different types of herbs and experiencing their benefits for themselves. Scientific herbal medicine has a better percentage of success in achieving blood pressure targets than conventional antihypertensive combinations (Prasuma & Setiawan, 2024).

Facing the current marketing challenges, traditional herbal medicine is still very much left behind compared to chemical medicines, which have been spread in various regions and also many have marketed with digital marketing media both e-commerce and social media which have spread in various regions and many have also marketed with digital marketing media, both e-commerce and social media. This is a serious problem to overcome the lag in traditional herbal medicine marketing. Herbal craftsmen should be able to market not only offline, namely selling by going around the nearest village, but also be able to sell online using technology that continues to develop from time to time. One of the online marketing technologies is using e-commerce or social media, so that product marketing is spread more widely and efficiently. Online marketing can reach people from various regions that may still rarely have herbal medicine craftsmen, so that people can easily consume traditional herbal medicine at any time (Hertawaty et al., 2022).

Not only that, some *jamu* tourism spots in Java also offer workshops for tourists who want to try making

their own *jamu*. In this workshop, tourists are taught how to process the ingredients that have been prepared, mix them in the right amount, and process them into ready-to-drink *jamu*. This activity is very interesting, especially for foreign tourists who want to bring home a unique experience from Indonesia. The workshop also provides an in-depth insight into the local wisdom embodied in the Javanese culture of *jamu* making.



Figure 2. The process of making herbal medicine (Source: <https://www.google.com>)

The results of this herbal medicine are very special because the production is delicious, more durable even without preservatives. However, to get satisfactory herbal products requires a lot of time and energy. The production process that still uses traditional equipment causes limited production turnover. Not to mention the marketing issue, which is also a big obstacle (Alifatin et al., 2019).

In the marketing process, it is still limited to the area around the village and around Gunung Kidul Regency. Although there are approximately dozens of families who produce *jamu*, sales are still carried out sporadically, separately and uncoordinated. Every morning, the *jamu* selling mothers sell their *jamu* by being transported together and dropped at certain points outside Karangreajek village.

This herbal medicine-making activity has actually been carried out for generations, however processing and marketing that is still done conventionally by carrying and travelling around in such a way is very time-consuming and cannot focus on developing production (Andini et al., 2019).

This herbal medicine-making activity has actually been carried out for generations, however processing and marketing that is still done conventionally by carrying and travelling around in such a way is very time-consuming and cannot focus on developing production. Currently, every day, traders can produce 8-13 bottles of 1.3 litres, and earn a gross income of approximately 150 thousand from morning to night.

However, the long process of making, selling, and travelling long distances and times, allows the productivity and performance of traders to be disproportionate to their income (Alifatin et al., 2019).

Herbal tourism also has a positive impact on the local community, both in terms of economy and cultural preservation. Locals have the opportunity to be involved in tourism activities as guides, workshop instructors, or producers of ready-to-sell herbs. In addition, many tourists are interested in taking home packaged herbs or buying other herbal products as souvenirs. These activities boost the local economy and support the sustainability of small businesses that produce *jamu* traditionally (Irawan et al., 2021).

Not only in the form of drinks, *jamu* is now also adapted into various modern products such as soap, essential oils, or other body care products. This adds to the selling point of *jamu* tourism, as well as attracting travellers looking for unique souvenirs from Indonesia. Some local entrepreneurs have even developed instant *jamu* that is practical and easy to take home as souvenirs, so that tourists can still enjoy the benefits of *jamu* even after returning to their home countries.

Jamu festivals held in several cities in Java, such as Yogyakarta and Solo, are also a big promotional event for *jamu* tourism. These festivals usually feature *jamu* producers from various regions, showcasing various types of *jamu*, and presenting the process of making *jamu* directly.



Figure 3. Drinking herbal medicine after cycling (Source: <https://gunungkidul.sorot.co/>)

In addition to blending and drinking *jamu*, the beautiful rural atmosphere at the *jamu* tourism sites adds to the attraction. Most *jamu* production sites are located in villages with beautiful natural scenery, fresh air, and away from the hustle and bustle of the city. This calm environment provides a relaxing effect, so that tourists not only feel the benefits of herbal drinks, but also get peace from the surrounding nature. This combination

makes Javanese herbal tourism suitable for those who want to unwind and find peace. One of them is by consuming herbal drinks such as by drinking traditional herbs which have an effect on the immune system (Hadi, 2022).

Meanwhile, the tourism industry views medical tourism as a combination of medical services and tourism services, while the medical industry is less optimistic about the combination of medical services and tourism services. Therefore, the approach used is very influential in determining the perspective that will be given to medical tourism activities. The best way to use the approach in the field of tourism science is to use tourism theory, tourism is formed based on various disciplines, therefore in approaching tourism activities it would be better to use various related disciplines (Dewantara, 2018).

A centre is a small unit of an area that has certain characteristics where there are In the centre area there is a physical functional unity: land, geography, infrastructure, institutions and human resources, which has the potential to develop economic activities under the market influence of a product or service that consists of a group of micro, small and medium entrepreneurs. In the centre area there is a physical functional unity: land, geography, infrastructure, institutions and human resources, which has the potential to develop economic activities under the market influence of a product that has high selling value and competitiveness (Hidayat, 2019).

Jamu is a traditional medicine made from natural ingredients that has been passed down from generation to generation for health. passed down from generation to generation for health. The definition of *jamu* in Permenkes No. 003/Menkes/Per/I/2010 is a material or mixture of materials in the form of plants, animal materials, mineral materials, serian preparations (generic), or a mixture of these materials which have been used for generations for treatment based on experience and can be applied in accordance with the norms prevailing in the community (Tuldjanah, 2022). Most people consume *jamu* because they believe it provides considerable benefits to health both for the prevention and treatment of a disease as well as in terms of maintaining fitness and beauty and increasing body stamina (Hidayat, 2019).

Sour turmeric herbs are also herbs that are usually the most sought after. In fact, because of its efficacy, many herbal producers have now made sachet turmeric herbs. The main ingredients of this sour turmeric *jamu* are obviously turmeric and tamarind, but given some additional ingredients such as brown sugar, temulawak and other spices. Usually, each seller has a 'special ingredient' that makes the sour turmeric taste fresh. 'Those who buy it are usually teenage girls, because it

can help with abdominal pain during menstruation,' explains Yanti. In addition to overcoming menstrual problems, sour turmeric is also suitable for those of you who are on a diet and can also brighten the skin because turmeric contains many antioxidants that help rejuvenate body cells (Hidayat, 2019).

The results of the above description are interested in participating in disseminating the skills of making scientific herbal concoctions to the wider community so that the community is able to independently treat initial complaints in dealing with non-communicable diseases (NCDs). The goal after conducting community service activities is that the community is able to make scientific herbal concoctions independently by utilising medicinal plants in the surrounding environment (Kusumaningrum et al., 2022).

Conclusion

The results of the study found that *jamu* as a tourist attraction has shown various benefits and potential that can support cultural and health tourism in Indonesia. With its background as a traditional medicinal plant-based drink that has been used by Javanese people for centuries, *jamu* not only provides health benefits but also has cultural and economic appeal. The results of the study found that *jamu* as a tourist attraction has shown various benefits and potential that can support cultural and health tourism in Indonesia. With its background as a traditional medicinal plant-based drink that has been used by Javanese people for centuries, *jamu* not only provides health benefits but also has cultural and economic appeal.

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Conflicts of Interest

In this research, there is no tug of interest and or hidden interests among the researchers. In addition, this research is also not an order from any funder because it is independent research.

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