

## Excellent Workforce Can Improve the Quality of Traditional Herbs Medicine in the Special Region of Yogyakarta (DIY)

Dewi Tri Komalasari <sup>1\*</sup>, Unedo Hence Markus Sihombing <sup>2,3</sup>, Donna Ekawaty <sup>4</sup>

<sup>1</sup>Universitas Satyagama

<sup>2</sup> Universitas Kristen Krida Wacana

<sup>3</sup> RS Tarakan

<sup>4</sup> Universitas Bina Sarana Informatika

Email: [dewii.komalasarii9494@satyagama.ac.id](mailto:dewii.komalasarii9494@satyagama.ac.id)

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### Abstract.

Formerly known as birth defects, congenital anomalies are structural or functional abnormalities present at birth that can lead to physical disability, developmental problems or other health issues. Congenital abnormalities can affect organ shape, organ function or both. Past researchers have found that there are many congenital abnormalities of infants and some of them cause lifelong disability to the infant. If not prevented and treated quickly, they can be a major problem causing infant mortality during their first year of life. One way to prevent congenital abnormalities in babies is to provide healthy and nutritious food and traditional herbs during the mother's pregnancy. Traditional herbs have many benefits, such as body immunity, disease treatment, and maintaining the health of the baby while in the mother's womb. One of the best producers of traditional herbs in Indonesia is the Special Region of Yogyakarta (DIY), which has the highest tourism economy on the island of Java. A high economy is inseparable from the excellence of the existing workforce. A superior workforce will be able to produce products that can be useful for the community, especially pregnant women. The method used in this research is a structured interview method followed by the results of a site survey of nine respondents consisting of traditional herb lovers in a pregnant condition and traditional herb sellers. The results of this study show that a superior workforce can improve the existing tourism economy with the products produced, especially in traditional herbs in the Special Region of Yogyakarta (DIY).

**Keywords** Labor; Congenital Abnormality ; Tourism Economy ; Traditional Herbs.

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## 1. Introduction

According to WHO (2016), congenital abnormalities are defined as structural or functional anomalies that occur during intrauterine life and can be identified before birth, at birth, or sometimes only detectable later in life. Formerly known as birth defects, congenital anomalies are structural or functional abnormalities that are present from birth and can lead to physical disability, developmental problems or other health issues. Congenital abnormalities can affect organ shape, organ function or both.

Among other Southeast Asian countries, this figure shows that infants with congenital abnormalities are most prevalent in Indonesia. Abnormalities are thus an important health issue as they are one of the leading causes of lifelong disability and death in infants in Indonesia. Previous researchers have found that there are many congenital disorders of infants and some of them cause lifelong disability in the infants. These if not prevented and treated quickly can be a major problem causing infant mortality during their first year of life. One way to prevent congenital abnormalities in babies is to provide healthy and nutritious food and traditional herbs during the mother's pregnancy. This is because traditional herbs are natural herbs without preservatives or chemicals that are very safe for pregnant women. So as to be able to provide nutrition to the baby in the womb and prevent congenital abnormalities in the baby.

Traditional herbs derived from plants and herbs have been widely used by Indonesians for various fields, such as culinary, crafts, beauty, and medicine (Erlyana, 2018). Based on data from the Central Statistics Agency (BPS) for the period 2016-2021, it can be seen that there have been fluctuations in the amount of medicinal plant production, this increase has been increasingly significant since the pandemic until now.

Traditional herbs are one of the heritages of the Indonesian nation that must continue to be developed because traditional herbs not only act as traditional medicines, but also as inclusive national assets because they intersect with social and economic aspects in Indonesia. This can be seen from the price of traditional herbs which is relatively cheap so that it can be reached by Indonesians of any class.

This heritage must be maintained so that it does not fade or disappear so that it can be learned and preserved by the next generation. One of the best producers of traditional herbs in Indonesia is the Special Region of Yogyakarta (DIY) and has high tourism development. This is supported by data obtained from the Indonesian Statistics Agency ([www.bps.go.id](http://www.bps.go.id)), regarding tourism development in the Special Region of Yogyakarta (DIY) in 2024 there was an increase of 57.19% from 2023 to 2024.

The Special Region of Yogyakarta (DIY) has the highest tourism economy in Java (Bank Indonesia, Regional Economic Report 2024). The high economy achieved is inseparable from the excellence of the existing workforce. Because a good workforce will be able to produce good quality products or services. Labor is a valuable asset of the company that must be managed properly in order to produce quality goods or services. Quality products and services will be able to meet consumer demand. If the product is good and able to meet consumer demand, then the buyer will want to come back and buy the product (Tjiptono, 2012).

### 1.1. Congenital Abnormalities

According to WHO (2016), congenital abnormalities are defined as structural or functional anomalies that occur during intrauterine life and can be identified before birth, at birth, or sometimes can only be detected later in life. Congenital abnormalities can affect organ shape, organ function or both. The degree varies from mild to severe. The baby's ability to survive depends on the part of the body that has the abnormality (Ministry of Health, 2018).

The results of this Basic Health Research (RISKESDAS) show that one of the causes of infant mortality in Indonesia is congenital abnormalities. According to the Global Report on Birth Defects released in 2006 by the March of Dimes Birth Defects Foundation, the percentage of infant deaths with congenital abnormalities was 1.4% at 0-6 days of age, and 18.1% at 7-28 days of age. Among other Southeast Asian countries, these figures show that infants with congenital anomalies are most prevalent in Indonesia.

Abnormalities are thus an important health issue as they are one of the leading causes of lifelong disability and death in infants in Indonesia.

There are several risk factors that favor the occurrence of congenital abnormalities such as genetic, environmental, infectious, nutritional status, socioeconomic, and demographic factors. Talking about risk factors for congenital abnormalities, it is also necessary to consider preconception risk factors, paternal and maternal history, socio-cultural, and post-conception risk factors. Some other maternal characteristics included in the risk factors for congenital abnormalities are history of disease, parity, and distance between births (Căpățină D & Cozaru GC, 2015).

Past researchers have found many congenital abnormalities of infants and some of them cause lifelong disabilities in the infants. These if not prevented and treated quickly can be a major problem causing infant mortality during their first year of life. One way to prevent congenital abnormalities in babies is to provide healthy and nutritious food and traditional herbs during the mother's pregnancy.

## **1.2. Tourism Economy**

Tourism is everything related to tourism, including improving tourist attractions and everything related to the tourism sector, including objects and tourist attractions (Wirawan & Octavia, 2022). In addition, tourism also includes all types of facilities and services provided by the community, entrepreneurs, government, and local governments. The tourism sector is able to create economic benefits that can be seen from 3 sides, namely: gross domestic income, tourist spending, and employment in tourism (Sutono et al, 2023).

In recent decades, the tourism economy has experienced rapid and significant growth and this will have an impact on gross domestic product. According to Suparman (2023), in the tourism economy, sustainable tourism development focuses on 3 (three) important things, namely: 1). Quality - valuable experiences for visitors and improved quality of life for local communities through cultural identity, poverty reduction, and environmental quality; 2). Continuity - utilization is carried out at an optimal level that allows the preservation and regeneration of natural resources; 3). Balance between the needs of the tourism industry, environmental protection, and local communities through equitable distribution of benefits among stakeholders in the local area.

## **1.3. Labor**

Labor is a potential resource in an organization or company to carry out activities that have been determined. Labor is a unique and complex creature that in carrying out activities in the company environment must be treated properly in order to work effectively and efficiently. Each workforce has different potential to become the driving force of a business.

According to Sumitro Djojohadikusumo (2007), labor consists of every individual who wants, is willing, and has the ability to work, including those who are unemployed because there is no opportunity to work even though they want to work and have the ability to do so. Labor is people who are in the working age range who are ready to carry out their work. Those who are already working, those who are looking for work, and those who are in education (school) are included in the labor force.

According to Law No.13 of 2003, labor is everyone who is able to do work in order to produce goods and services, both to meet their own needs and those of others or the community. In this problem, labor is grouped into: a) Educated labor is labor that requires a high level of education. For example doctors, teachers, engineers etc.; b) Trained labor is labor that requires training and experience. For example, traditional herbal medicine makers, drivers, mechanics, etc.; c) Uneducated and trained labor is labor whose work does not require prior education or training. For example, sweepers, garbage men, etc.

Meanwhile, work is defined as an economic activity carried out by a person with the intention of obtaining or helping to obtain income or profit. There is a division of work into 4 groups, namely; 1) Working optimally both in terms of wages and working hours; 2) Voluntary part-time work; 3) Working but accompanied by a mismatch between education and occupation and voluntary part-time work; 4) Working but accompanied by a mismatch between educational background and occupation.

Law No.13 of 2003 concerning labor, labor is everyone who is able to do work that produces goods and services both to meet their own needs and for the community. This definition states that labor is a very important production factor in the company so that labor planning in the continuity of the company's operations in producing goods and services is very calculated both in terms of quality and quantity. Thus labor is a valuable asset of the company that must be managed properly in order to produce quality goods or services.

Product quality is defined as products that are able to meet customer needs and desires while balancing customer expectations (Tjiptono, 2012). If the product is unsatisfactory, the customer will experience dissatisfaction. and most likely do not want to repeat the purchase of the product. conversely, if the product is good, the buyer will want to come back and buy the product.

#### **1.4. Traditional Herbs**

According to Muhammad Nur Irsyad et al (2013), traditional herbs are traditional medicines derived from plants, animals and minerals, galenic preparations or a mixture of these materials that have been used for generations for treatment, and can be applied in accordance with the norms prevailing in the community. In terms of evidence and standardization of efficacy, safety and quality, traditional herbs are natural ingredients without the addition of preservatives or chemicals which are very safe for all ages even pregnant and lactating women.

Traditional herb is a home industry or factory that is managed in a modern or traditional way because it is a commodity that can be used as a medicinal ingredient. Home industries that produce these traditional herbs are scattered in many places or areas called “traditional herb industry centers”. The raw materials used are also not required to be standardized but must still meet the established quality requirements so that quality can be maintained for consumers (Ministry of Health, 2023).

Thus, “traditional herb industry center” means a place or area where people make herbs from plant, animal, and mineral ingredients for medicinal purposes, which has been done traditionally for a long time. Traditional herbs that are traditionally made are safer for all ages and even pregnant women, as there are no added preservatives or chemicals in them.

## **2. Research Method**

In this study, researchers used a qualitative research design to produce findings that cannot be achieved using statistical procedures or other quantification methods. Qualitative research is one of the research procedures that produces descriptive data in the form of speech or writing and the behavior of the people observed. Qualitative research is expected to be able to provide a detailed explanation of phenomena that are difficult to convey with quantitative methods.

Qualitative methods are carried out in a scientific, rational, easily observed by the human senses and logical way (Sugiyono, 2016). The case study qualitative method is one of the research procedures that produces descriptive data in the form of speech or writing and the behavior of the people observed. Qualitative research is expected to provide a detailed explanation of the phenomena that occur based on historical data analysis (Flick, 2006).

According to Creswell (2009), qualitative theory helps researchers in making research questions, guiding how to collect data and analyze data. Thus, case study qualitative research is one of the studies that refers to understanding the reality and reality of subjects and objects in daily activities. In addition, researchers also feel and are directly involved in the situation being studied.

It can be concluded that qualitative research is a type of research that focuses on understanding how the subjects and objects of research are involved in everyday life. This type of research also involves researchers experiencing and being directly involved in the situations they study. The data obtained from the results of collecting data through structured interviews followed by the results of a location survey of 9 respondents consisting of 6 traditional herb connoisseurs who are pregnant and 3 traditional herb sellers in the Special Region of Yogyakarta (DIY).

Data management, according to Cahyadi (2019), survey methods consist of combining previous reports, maps, additional sources, meetings with resource persons, universities, private sector spokespersons, and government officials. According to Inskeep (1991) and Cahyadi (2019), surveys are a source of local community information. Thus, data management in this research is based on interview data and site survey results.

### 3. Results And Discussion

#### 3.1. Research Location

This research was conducted in the Special Region of Yogyakarta (DIY).



Picture 1: Emanuel, 2020. Traditional Herb Material Collection Process



Picture 2: Emanuel, 2020. Traditional Potion Making Process



Picture 3 : Emanuel 2019. Traditional Potion Sales Process

#### 3.2. Research Results

Based on the results of this study, it has been found that the labor of traditional herb makers who are still home-based and traditional businesses can increase the purchasing power of the community, especially people who want to maintain their immunity, who are sick or pregnant women. This is because traditional potions that are still manual are considered to have higher quality without the addition of preservatives and other chemicals.

Many people still believe in treatment with traditional herbs and preserve these traditional herbs as ancestral heritage that must be preserved. Traditional herbs are not only used for health purposes but also as souvenirs favored by tourists visiting the Special Region of Yogyakarta (DIY).

#### 3.3. Discussion

Formerly known as birth defects, congenital anomalies are structural or functional abnormalities that are present at birth and can lead to physical disability, developmental problems or other health issues. Congenital abnormalities can affect organ shape, organ function or both. Some of the risk factors for



congenital abnormalities include genetic, environmental, infectious, nutritional, socioeconomic and demographic factors.

One way to prevent congenital abnormalities in babies is to provide healthy and nutritious food and traditional herbs during the mother's pregnancy. Traditional herbs are home industries or factories that are managed in a modern or traditional way because they are commodities that can be used as medicinal materials. Home industries that produce traditional herbs are called "traditional herb industry centers". The raw materials used are also not required to be standardized but must still meet the established quality requirements so that quality can be maintained for consumers.

The results of interviews conducted with Mrs. Neka and Mrs. Sita (pregnant women drinking traditional herbs), they prefer to drink traditional herbs made manually because they believe that traditional herbs that are still manually made are more natural without the addition of preservatives and usually the traditional herbs they usually buy sell out quickly so as to avoid bad bacteria entering.

The results of interviews conducted with Mrs. Miska, Mrs. Okta, and Mrs. Tiwi (mothers who often drink traditional herbs during pregnancy), they prefer to drink traditional herbs that are still made and sold from home. This is because they can directly see the process of making it, know who made it, and can ensure the ingredients used. They felt that their health during pregnancy was maintained by drinking traditional concoctions once a day and after giving birth they felt that the child they gave birth to was healthy without any signs of abnormalities.

The results of interviews conducted with Mrs. Mita and Mrs. Citra (Tourists from Tangerang and Medan), they like to bring traditional herbs as souvenirs that they bring to their families back home. Not only as a family souvenir but also as a stock of natural medicines and herbs that they provide in their homes. They believe that traditional herbs are an ancestral heritage that can cure diseases and maintain body immunity.

The results of interviews conducted with Mrs. Manan and Mrs. Sutiem (traditional herb sellers whose making is still manual), they have been selling traditional herbs for more than 10 years and they admit that they learned to make this traditional herb from their ancestors. They were trained and tested by their ancestors and the manufacturing process they do is still manual, without any artificial sweeteners, preservatives and other chemicals. This is because they think that if the making is still manual the efficacy produced by this traditional herb will function properly and precisely. Most of the buyers do not only buy for themselves but buy for others or as souvenirs from the Special Region of Yogyakarta (DIY).

The Special Region of Yogyakarta (DIY) has the highest tourism economy in Java. The high economy achieved is inseparable from the excellence of the existing workforce. Because a good workforce will be able to produce good quality products or services. The labor of traditional potion makers is trained and tested by their ancestors, this is because the recipes and methods from the ancestors will have a more efficacious effect for treatment.

Traditional herb makers who have been trained and tested will be able to produce good quality traditional herbs. That will invite traditional herb lovers and tourists to make this traditional herb a good drink for them. Either for consumption or as souvenirs from them.

#### **4. Conclusion**

The research conducted concluded that a superior workforce can improve the tourism economy in the Special Region of Yogyakarta (DIY), especially for traditional herb makers.

Traditional herbs made manually or in home industries emphasize natural ingredients without preservatives or chemicals that are safe for the prevention of congenital abnormalities in infants.

Recommendations for future research to conduct research on more respondents that include traditional herb makers and consumers of traditional herbs during pregnancy. For medical personnel and communities who can add new variables with different research objects.

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