

# Strategies to increase the consumption of traditional medicine in Medan

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**Abstract.** As people improving their knowledge and increasing their income, it improves their awareness about healthy life. It affects of demanding of medicine highly including traditional medicine because of its using more safety and hereditary. The consumption of traditional medicine in Medan was still low comparing with modern medically. The objective of the study was to analyze the strategy of increasing traditional medicine consumption in Medan. The samples are the business actors of traditional medicine, the consumer of traditional medicine, the leader of Jamu's entrepreneur Association, and the supervisor of food and medicine in The National Agency of Drug and Food Control (NA-DFC). The analysis SWOT was used in this study. The Result of the study showed that the position of the strategy of increasing the using of herbal in Medan was in the first quadrant. Commonly, it means that the strategy was in agresif level which showed the maximal probability. Therefore, jamu's entrepreneurs should implement the strategy of product development to increase the number and variation of types of traditional medicine which has a good taste and high quality and provide education to consumers about utility and how to use traditional medicine.

## 1. Introduction

Indonesia has biological resources and is one of the world's largest biodiversity nations, and ranks second position after Brazil. Herbal wealth of about 30,000 species of medicinal plants is a potential for the development of herbal products whose quality is equivalent to modern medicine and beneficial to the interests of society. However, the natural resources have not been utilized optimally, only about 1,200 species of medicinal plants are utilized and researched as traditional medicine [1].

Traditional medicine in Indonesia is part of the nation's culture and is widely used by the community, but in general its effectiveness and safety have not been fully supported by the research.

The use of traditional medicine is generally considered safer than the use of modern medicine. In addition to traditional medicine has relatively smaller side effects than modern medicine, the price of traditional medicine is also cheaper when compared with pharmaceutical drugs. Thus the role of traditional medicine in Indonesian society in particular is very important and felt the benefits.

Based on research data published in the informal meeting on Strategic Planning on Traditional Medicine in Manila, it was mentioned that the use of traditional medicine in Australia reached 48.50%, China 90%, Hongkong 60%, Japan 49%, Nauru 60%, Republic of Korea 69% , Philippines, 57.30%, Singapore 45% and Vietnam 50%, while Indonesian herbalists based on the last 15 years data as much as 5% of Indonesians often use herbs and 45.17% sometimes use them [2].

According to the Strategic Plan of BBPOM Medan based on data on drug consumption conducted in Medan, most people are still many who consume modern medicine compared with traditional medicine. Consumer modern medicine in 2015 reached 91.40%, while traditional medicine only as



much as 24.33%. This indicates the low consumption of Medan city people against traditional medicine compared to modern medicine [3].

Traditional medicine producers are business actors who produce traditional herbal medicine products as an alternative treatment for most people, especially the people of Medan city. Traditional medicine entrepreneurs must compete with their competitors to attract customers in order to expand their business. The main competitor of traditional medicine is a modern medicine that contains chemicals that are easily available because it is available in every store.

This strategy is needed by traditional medicine business actors in order to increase the availability and quality and quality of traditional medicine, expand market share and increase the intensity of traditional medicine use.

Therefore, this study seek to empirically analyzed strategies to increase the consumption of traditional medicine in Medan. These strategies is expected to increase the consumption of community in Medan against traditional medicine.

## 2. Methodology

The location of the research is determined purposively in Medan because of the low consumption of the community against traditional medicine compared to modern medicine. In addition, there are several business actors that produce traditional medicines (herbs) that have received permits and supervision from The National Agency of Drug and Food Control (NA-DFC) in Medan

Purposive sampling was used in determining the sample in this study, which consist of 5 business actors of traditional medicine, 30 consumer of traditional medicine leader of Jamu's entrepreneur Association, and the supervisor of food and medicine in The National Agency of Drug and Food Control (NA-DFC).

Strategy is a tool to achieve goals. SWOT analysis is a suitable analytical tool to formulate the strategy. This analysis is based on logic that can maximize strength and opportunity, and can minimize weakness and threat [4]. The SWOT matrix is used to construct strategic factors. This matrix clearly illustrates how opportunities and threats can be adjusted to the strengths and weaknesses.

The first thing to do is identify the factors that influence the increase of traditional medicine consumption in Medan. From these factors are determined strategic factors that can be grouped on external factors and internal factors. Internal factors are factors that can be controlled by business actors, while internal factors are factors that can not be controlled by business actors.

Second, in analyzing the strategies we determined strength, weakness, opportunity and threat based on scoring. Scoring was identified among the internal factors (strengths and weaknesses) and external (opportunity and threats) through a questionnaire that has been compiled. Score values range from 1 - 4 from the lowest to highest assessment. Scores 1 and 2 show weaknesses and threats, while 3 and 4 show strengths and opportunity. Score values are determined based on predefined parameters obtained through interviews. The next step is to determine the arithmetic mean for each factor after obtaining the value for each factor of each respondent

Third, we determined weighting internal and external factors. Weighting is performed by pairwise comparison scale model with comparing factors that one with other factors in a hierarchy, so we can get the values of each of the factors.

Weighting is done by using pairwise comparison scale model with value of scale 1,2 and 3 so that obtained value of importance determined by ability of respondent to distinguish value between paired factors. Next step, we calculate the weighted score by multiplying the score of each factor by the weight obtained in each factor. The analysis results are made on the position matrix in cartesius diagram by calculating the difference of internal factors (strengths - weaknesses) for values on the horizontal axis and the difference of external factors (opportunity - threat) for values on the vertical axis. The last step, we can arrange strategies which consist of strength – weakness, weakness – opportunity, strength – threat and weakness – threats strategies.

## 3. Result and Discussion

Based on the observations obtained can be seen factors internal and external factors that affect strategies increased consumption of traditional medicine in Medan. Internal factors consist of strength

and weakness. External factors consist of opportunity and weakness. Internal factors are factors that can be controlled by business actors. External factors can't be controlled by business actors.

### *3.1 Description of Internal Factors*

*3.1.1 The Availability of the Raw Material for Traditional Medicine.* The production of traditional medicinal products depends on the herbal raw material which in fact depends on the nature, the availability of raw materials is an important concern to maintain the availability of sustainable, well cultivated so that the quality produced has good and high quality.

In General, traditional medicine is the herb ingredients or are made from plants, animals, minerals, or a combination of these materials are processed and traditionally has been used orally for the treatment. Raw materials used by the business actors are selected based on considerations by the criteria of having a good quality. The amount of raw materials used is also always meets the needs of the production and trade of traditional medicine.

*3.1.2 The Availability of Appropriate Labor.* According to National Agency of Drug and Food Control (NA-DFC) that the labor should have the knowledge, skills and competence appropriate to the duties and functions, and be available in sufficient quantities [5].

Based on the result of this research, the availability of labor in traditional medicine business consists of production area, pharmacist, packaging and marketing. Labors of production area in traditional medicine business in Medan consists of women and most of them are housewife and trained so that the work can be done quickly and regularly.

*3.1.3 The Availability of Buildings, Machines and Production Equipment Of Traditional Medicine.* Ideally the traditional small industries well and healthy should be in a location that is free from pollution. The building must also meet the requirements of sanitary and hygienic procedures.

The building of the traditional medicine business should have design rooms and the width of the building according to the shape, characteristic, quantity of the product, the number of using equipment and the number of employees employed.

Based on the the result of this research, traditional medicine business in Medan has adequate buildings, machines and production equipments which complete for business activity.

*3.1.4 Process of Traditional Medicine Production.* According to WHO that process of production is one of the key stages in which quality control is required to ensure the quality of natural medicines produced [6].

The traditional medicine production process based on the results of interviews with business actors consists of preparation of raw material for traditional medicine, production process, packaging and brands label and logos of herbal medicine. Every business actor of traditional medicine in all aspects of traditional medicine and traditional medicine-producing activitie based on Good Manufacturing Practice (GMP).

*3.1.5 Knowledge of Business Actor.* Knowledge owned by the business actor of traditional medicine including the knowledge of the truth of the raw materials used, regarding the accuracy of the dose, the precision processing of raw materials, use of timekeeping that is right and good in taking traditional medicine and the benefits of traditional medicine and knowledge of side effects.

*3.1.6 Information on Packaging.* Clarity and completeness of product information on the label of the package traditional medicine intended to communicate the product thoroughly so that it can affect consumers to increase consumption of traditional medicine.

*3.1.7 Marketting of Traditional Medicine.* In general they market their traditional medicine directly from the manufacturer to the customer directly, social media, distributor and salesman. Marketing on traditional medicine businesses generally use direct marketing. The goal is to obtain a response and direct response from consumers about the effects of the efficacy of herbal medicine consumed.

*3.1.8 The Number of Variations of Traditional Medicine.* According to National Agency of Drug and Food Control (NA-DFC) in strategic planning that the increasing number of people will increase the demand for drugs so that the supply of traditional medicine will also increase. A large market potential becomes an opportunity for traditional medicine producers to increase the number and variety of traditional medicine. Most of the traditional medicine producers in Medan only produce one or two types of traditional medicine with variations that are still a little bit.

### 3.2 Description of external factor

**3.2.1 Consumer Assessment of the Quality of Traditional Medicine.** Natural herbal medicine including herbal medicine produced by traditional medicine industry and small industry have the same requirement that is safe to use, useful and good quality [7].

The assessment of consumers in taking traditional medicine are side effects, rapid response to healing and efficacy felt by consumers after taking traditional medicine. The quality of traditional medicine in the city of Medan, according to consumers in Medan city included in the category of the good and safe for consumption.

**3.2.2 The Availability of Traditional Medicine in Medan.** One of the categories evaluated by consumers in the buying decision process is availability [8]. Based on the results of interviews with consumers of traditional medicine is obtained that most consumers did not trouble getting traditional medicine because it could be bought in pharmacies nearby, at drugstores, serves traditional medicine. Furthermore consumers argued that traditional medicine was always available at any time and can be purchased at any time consumers need it.

**3.2.3 The Role of the The National Agency of Drug and Food Control (NA-DFC).** The role of the National Agency of Drug and Food Control (NA-DFC) is to guarantee the protection of consumers from traditional drug abuse, ensure the security aspects, benefit and quality of traditional medicines that are circulating in Medan by testing a sampling of traditional medicine.

**3.2.4 The Role of the Jamu's Entrepreneur Association.** Based on the results of interviews with the leader of jamu's entrepreneur association in Medan that jamu's entrepreneur association supported towards the development of jamu's business in Medan.

**3.2.5 The Dangers of Chemical Medicine.** The consumer mentioned that taking modern medicine resulting in side effects directly or indirectly, that may be because the chemicals contained in modern medicine, in addition it can be addicted. Drugs containing chemicals are not good for the body if it is consumed continuous. The more routine taking of chemical drugs, the resistant body and disease will be more immune to fight treatment given.

**3.2.6 The Accuracy of the Consumer Taking Traditional Medicine.** Traditional medicine will be useful and safe if it is used with consideration of six aspects that consists of accuracy are appropriate dosage, timely and how to use, appropriate selection of materials and information review and in accordance with certain disease indications [9].

The results of interviews with consumers of traditional medicine that most people did not consume traditional medicine in accordance with the applicable dose and did not correspond with the time of the use of traditional medicine. That is because the consumers of traditional medicine is only trust the efficacy and benefits of traditional medicine without regard to the accuracy of the use of traditional medicine.

**3.2.7 The Opinion of Consumers about the Taste of Traditional Medicine.** The problem often encountered by the consumer at the time of taking traditional medicine traditional medicine is a less preferred because it tends to be more bitter. consequently some consumers complain about the traditional taste of medicine but because of the efficacy of the drug then consumers continue to consume.

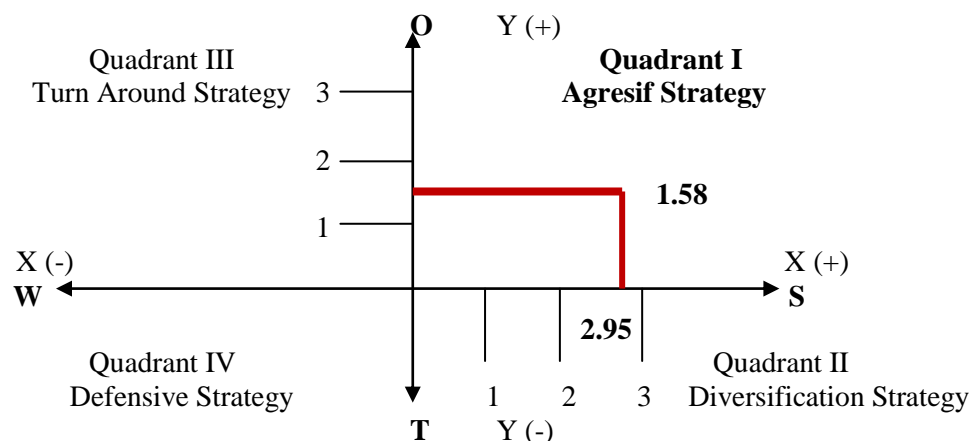
**3.2.8 Consumer Confidence in Consuming Traditional Medicine.** When a consumer trusts a company, they will prefer to repurchase and share valuable personal information with the company [10]. Based on result of this research, the confidence of consumer with traditional medicine is quite high. This is evidenced by the results of interviews with 30 consumers of traditional medicine and the results obtained quite well.

**3.2.9 The Influence of Consumer Income.** According to the fact, the higher the income then the greater the public consumption of drugs that have standards and quality. Based on the results of interviews with consumers of traditional medicine that if consumer incomes increase, then consumers will be ncreasing the standard and quality of traditional medicines that they consumed. Some consumers say to prefer taking traditional medicine that has been clinically tested such as phytopharmaca products.

Evaluation of internal and external factor strategy is done by creating a matrix table. The steps are taken to make weighting, scoring and calculate weighted scores (score x weight). Based on the result of calculation weighted score, we obtained total score of strength is 3.21 and weakness is 0.26.

Meanwhile difference of (strength – weakness) is 2.95. Total score of opportunity is 2.24 and threat is 0.66. Meanwhile difference of (opportunity – threat) is 1.58.

The position of the strategy consumption increase of traditional medicine in Medan uses the position matrix which be shown by the coordinate point (x, y). The value of x is obtained from the difference between the internal factor (strength - weakness) and the value of y obtained from the difference of external factors (opportunities - threats). The position of the x and y coordinate points can be seen in the cartesian diagram in Figure 1.



**Figure 1.** Position Matrix of Strategies Consumption Increase of Traditional Medicine

The position of the strategies to increase the consumption of traditional medicine in Medan is on the I quadrant means business actors have factors – factors of strength and great opportunities to improve the consumption of traditional medicine. The focus of the strategy is to maximize strengths by utilizing the opportunities. The strategy should be applied in this case is supportive of a growth oriented strategy. The I quadrant is the most profitable situation. It means that the company has opportunities and strength so that it can utilize the strengths and opportunities [11].

Based on determination of internal and external factors, then we evaluate strategies to increase the consumption of traditional medicine in Medan.

#### Strategies of Strength-Opportunity

1. Utilizing the availability of raw materials to increase the availability of traditional medicine
2. Utilizing the availability of labor to increase the availability of traditional medicine
3. Optimize the knowledge of business actor of traditional medicine to improve the quality of traditional medicine
4. Utilizing the clarity of information on traditional medicine packaging to increase consumer confidence in traditional medicine
5. Utilizing standar of the traditional medicine production process to improve the quality and to increase consumer confidence

#### Strategies of Weakness – Opportunity

1. Improve marketing network to boost the availability of traditional medicine.
2. Increase the number and variation of traditional medicine to claim the role of The National Agency of Drug and Food Control (NA-DFC) in the process of assessment and supervisor.

#### Strategies of Strength – Threat

1. Optimize the knowledge of business actor to provide education and guidance in raising consumer awareness in taking traditional medicine in accordance with the rules of the use of traditional medicine is good and true.
2. Optimize the knowledge of business actor and the availability of labor to create product innovations in order to change the perception of the consumer against a sense of traditional medicine that awful.

#### Strategies of Weakness – Threat

1. Improve the marketing of traditional medicine network by optimizing the combined role of jamu's entrepreneur association.



2. Increase the number and variation of traditional medicine by optimizing the combined role of jamu's entrepreneur association.

#### 4. Conclusion and Recommendations

Based on the findings of this study, we conclude that factors affecting to increase the consumption of traditional medicine in Medan include 8 internal factors and 9 external factors. An alternative strategy that can be done that is aggressive strategies by maximizing the strength to take advantage of opportunities. In detail, there were 11 alternatives could be done that consist of strength-threat strategy, weakness-opportunity strategy, strength - threat strategy and weakness-threat strategy.

Therefore, jamu's entrepreneurs should implement the strategy of product development to increase the number and variation of types of traditional medicine which has a good taste, practical and has a high quality. Then, provide education to consumers about the utility and how to use traditional medicine.

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