Analysis of Marketability, Sustainability, Participatory and Disaster Mitigation (MSP+DM) for the development of rural Community-Based Tourism (CBT) destinations
Case study: Depok beach, Bantul, Yogyakarta

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Abstract. This study aims to design a new model for rural community-based tourism development in Depok Beach. It will help local government and local people develop their tourism by using easy analysis tools because the challenge in tourism business becomes nowadays critical issue. Instead of using SWOT analysis, the variables used are from the elements in a tourism business activity and community based mindset: Marketability, Sustainability, Participatory, and Disaster Mitigation (MSP + DM). These variables' elements are determined and calculated then converted to a scale for measuring the value of existing tourism attraction and its potential of the Depok Beach Yogyakarta.

Keywords: Rural tourism, CBT, marketability, Sustainability, Participatory, Disaster mitigation

1. Introduction
Yogyakarta local government makes the southern coast of Yogyakarta as a priority tourism development area. The Southern Coast of Yogyakarta lies in three regencies and faces directly onto the Indian Ocean [1]. One of them is Depok Beach located in Bantul Regency. Commonly, the analysis of tourism development using SWOT (Strength, Weakness, Opportunities, and Threat) is normally used by many previous researchers. SWOT analysis is one of the most frequently used methods in strategic management [2]. SWOT Analysis is based on the logic to maximize strength and opportunities, but at the same time also to minimize weaknesses and threats [3]. However, to analyse a recreational area that contains a variety of natural life, social and culture, SWOT becomes less effective in analysing a strategic planning scheme. It is because instead of the region contains dynamic people's life, SWOT also would be very subjective and difficult to maintain its consistency when a development program must pass through certain phases with rapid changes in the development of a community-based tourism area. Spontaneous approach, based on a game of market forces, is also the older and the most common situation that brings a spontaneous development of tourism and tourism products, therefore it makes disturbances on tourism-related and other functions held by a territorial unit [2]. Meanwhile SWOT faces difficulty to maintain objectivity when there is a change of personnel in performing
analysis on other occasions, both from government and from the local community people. Another thing that is more bothering is that in tourism nowadays what is considered as a weakness or strength is not necessarily true. One of SWOT deficiencies is the measurement and evaluation of prioritization of the factors and strategies [4]. Using SWOT for Strategic planning for the destination could be a difficult task as there are many possible strategies derived from the assessment of environmental factors [5]. The phenomenon depends on the attitude and creativity of local tourism players and also targets to be achieved by communities.

Currently, the development of the tourism sectors also becomes a big attention for Indonesian government. Tourism has been positioned as one of the main sectors that are expected to increase the income for the state and society. In these conditions, Yogyakarta local government who has tourism potential destination needs to make a development program that drives the economy in the region. One of the local governments that wants to develop its tourism destination is Bantul Regency, Yogyakarta. The tourist area planned to be developed is a coastal area in Depok Beach which is one of the black sandy beaches located in the hamlet of Depok, Kretak District, Bantul, Yogyakarta Special Province. The name of this beach is taken from the name of hamlet surrounding area, namely Hamlet Depok. Depok Beach area has been initiated and managed by communities around the southern coast. The combination of occupations in Yogyakarta southern coastal are farmers and labourers (18.5%), followed by fishermen and merchants (4.5%), farmers and fishermen (3%), farmers and merchants (2.5%), then fishermen and labourers (1.5%) and merchants and labourers (1.5%), etc [1]. Currently, its main attractions are to see and play on the beach and to enjoy the culinary offerings of seafood. A Local Tourism Group Organization called Kelompok Sadar Wisata (Pokdarwis) has also been established in the area with the clear division of tasks and authority in managing the beach by consensus. Although the government has built a fish market and auction but in general, Depok Beach area is the area of community-based tourism (CBT). CBT is usually described as a tourism activity refers to public participation and aims to generate benefits for local residents by allowing tourists to visit this community and learn about the local culture and environment [6]. CBT tourism types not only respond to the needs of tourists but also empower local people to apply their knowledge in managing tourism in their own communities. The goal is to protect and restore the natural resources in balance with the local identities and cultures as well as to serve the public economy [7]. CBT is also located within a community (i.e. on communal land or with community benefits such as lease fees), owned by one or more community members (i.e. for the benefit of one or more community members) and managed by community members (i.e. community members could influence the decision making process of the enterprise) [9]. Bantul District Government intends to develop these areas to increase tourist visits so indirectly it will obtain the increasing revenue for the region.

1.1 Identification of problems
Based on the explanation of the problems above, this paper will discuss about the alternative of analysis method about how to determine, to design processes, and to set goals in southern coast rural community-based tourism development of Depok Beach, Bantul, Yogyakarta.

1.2 Focus and Purpose of Study
Usually the local government uses SWOT analysis to determine applied program for tourism development. Bantul Government and local people in Depok Beach need simple, measurable, and personal biased-free methods in the development of CBT tourism. SWOT analysis becomes difficult to conduct because of their weakness application. Introducing new method that easy to use and measurable will help reduce the dispute of the SWOT analysis. The old paradigm often sees that the activities and business of tourism are more as a product perspective including Depok Beach. Indeed, the great line of products is what will always appear on marketing activities of tourism and its derivatives business. Rural tourism will also cause the development of social and economical aspects of a village in long terms [9]. Therefore, in terms of community-based tourism products (CBT) there are things that should be focused: Marketability, Sustainability, and community participation.
(Participatory). Also because of the condition of Bantul district which is considered particularly prone to disasters due to tectonic activities (earthquakes and tsunamis) and disasters due to human factors, it is also needed an analysis of Disaster Mitigation as well. The four variables (Marketability, Sustainability, Participatory, and Disaster Mitigation) needs to be made a tool that can help the local governments and local communities to provide the most appropriate direction of tourism development. It is proposed that a new framework of tourism business contains factors of social, cultural, economic, physical, technical, international, communicative, administrative, and legal and political which better fit the nature of industry applied to tourism environments [10]. Another important thing is that the four components should also be evaluated and could be a consistent footing for tourism development plans hereinafter as well as a function of the control/monitoring of what is being, has been, and will continue in the years of the continuous program period (multi-years) [11]. So, the new method based on marketability, sustainability, participatory, and disaster mitigation needs to be explored.

2. Literature Review

2.1 The concept of Marketability

Basically, the concept of marketability is to determine whether something considered as a tourism product in the region is able to be sold. Rural tourism can be defined as a tourism product, which the approach accentuates the importance of supply management and marketing activities [12]. Therefore, the things that are associated with the product and marketing issues is a matter of major concern. Directing marketing communication messages which highlight the appropriate temporally emphasized benefits of the product at the appropriate target market may be ultimately critical for the successful of marketing efforts [13]. Marketing is a social and managerial process that makes individuals and groups obtain what they need and want through creating and exchanging products and value reciprocity with others [14]. In exchange for these interrelationships, that will surely become a common reference, one of them is the price. According Guiltinan and Paul (1992) the definition of the marketing strategy is a fundamental statement about the impact that is expected to be achieved in terms of demand on the specified target market [15]. Marketing tourism destination pays attention to elements of attractions, amenities, accessibility, market segmentation, targets and positioning [16]. Smart companies in terms of marketing also use targeted media and integrate their marketing communications to send messages that are consistent with each customer [17].

By offering the right promotional incentives, marketing strategies and their firms can increase sales by creating repeat buying behavior to their offering [18]. The role of social media is also the powerful variable of marketing aspect in village tourism [19].

Various concepts presented above are eventually combined in an activity called marketability, that is a condition on how a thing can be sold and targeted. Therefore, in the field of tourism, the references of Marketability’s variables will be:

- Determination of the market to anyone would be targeted. Currently, mass tourism remains still as the backbone of many tourism actors in general in Indonesia
- Products, that is the uniqueness and originality typical of the local area which is regarded as a tourist attraction
- Price, that is an agreement on the profit margin to be obtained and its distribution among tourism businesses
- Distribution, that is the stability of the availability of various tourism products and the accessibility to the consumers/travelers
- Promotion, that is communication dissemination of information on the local tourism product range

2.2 The concept of sustainability

With the development of tourism activities, which obviously affects the environment, then the matters related sustainability become an issue that is not inevitable. Weaver (2009) and Wang (2010) state the concept of sustainable tourism incorporates environmental, social-cultural and economic perspectives
UNWTO also shows that investment-oriented sustainability (green investment / Sustainability tourism) in the field of tourism can contribute to grow the economy, the creation of decent work and poverty reduction while improving resource efficiency and minimize environmental degradation [21]. More forcefully, sustainable tourism explains policies, practices, and programs that take into account not only the expectations of tourists on the responsibility of the management of natural resources but also the needs of the tourism service provider community that support or be affected by tourism projects and the environment [21]. In other words, the community and the local environment that are in the environment of tourism activity should be considered and be part of the analysis of the development of a region. Sustainable development can also be explored by supporting the assessment of communities participating in the CBT [8]. Despite these conditions, the variables associated with the issues of the natural environment (nature) as well as the business environment becomes important as the awareness of the negative impacts of tourism activities. By clarifying management objectives and standards, natural resources and physical facilities could be allocated appropriately in different zones; in turn, tourists could be distributed in multiple attractions/destinations [20]. Sustainable tourism itself according to UNWTO, the UN Environmental Programme (UNEP) and the UN Foundation and the Rainforest Alliance in 2008, should have goals:

- the maximum profit for local communities,
- reducing the negative impact on local indigenous culture,
- reducing the damaging impact on the natural environment,
- the existence of planning for sustainability [22]

So that the analysis of the sustainability principle must be used. The principle of Sustainability is also to meet the needs of the present without compromising the fulfilment of the needs of future generations. Based on all reasons above, sustainability in tourism perspective to concern are:

- Each carrying capacity of tourist products must be consider
- Waste treatment
- Preservation of the environment
- Continuity of tourist visits
- Business development actors and related groups

### 2.3 The concept of Participatory

Another interesting point is tourism activities become more easy-access business activities and involve the local community. Therefore, a participatory plan becomes necessary in a tourism planning and set as a local community participation. Participatory is involving stakeholders in decision-making processes in both transparent and participative processes [23]. Participatory also means public involvement. The actual level of public involvement is related to how much social power or control they have in the decision-making process [24]. Community’s participation is locally recognized to initiate by two categories, which are participation in management planning process and participation in interpretation services (guide, cooking, driving, handy crafts, and local festival) to achieve existing outputs [25]. The answer for sustainable tourism practices seems to be the engagement and empowerment of local communities, since they are the ones that are directly affected by unregulated and unsustainable tourism growth [26]. This theory strengthens a participatory analysis theory Resources Community-Based Management by Korten (1986) and Pitana (1999) in Arismayanti (2010) with regard to the following matters:

- Mastery of local resources by local communities
- Responsible for local accountability
- Local variety [27]

Using the above three will reflect the strong public interest in relation to their participation in tourism activities, especially community-based tourism/CBT.
2.4 The Concept of Disaster Mitigation Management

According to the UN, disaster is a serious disruption of the functioning of a community or a society involving widespread impact to human, material, the economic or environmental impact of losses which exceed the ability of affected community or communities to overcome using their own resources [28]. Therefore, Disaster mitigation benefit is becoming social benefits. Social benefits accruing to a community through some natural hazard mitigation measure are the welfare values received by the community due to the mitigation measure [29]. Definition of mitigation is a series of efforts to reduce disaster risk, either through physical development as well as awareness and through the increase of capacity to deal with the threat of disaster [30]. Mitigation seeks to prevent harmful events and, if possible, reduce the severity occur, and minimize loss and subsequent damage (Miller et al., 2016). According to Republic of Indonesia Law/UU No. 24 the year 2007 on Disaster Management, disasters grouped in two types, namely:

- natural disasters in terms of Depok Beach area (devoted earthquake and tsunami)
- non-natural disasters, especially for handling the risks that may arise for the products of tourism in Depok Beach

Departing from these two types of disaster and other frameworks, a related analysis is needed to mitigate in order to reduce the greater risk for both tourists and local community. Proper planning and selection of places in constructing emergency stations are very important to reduce the effects of crisis [31]. Whilst it is not possible to avoid incurring losses from natural disasters completely, there is an evidence that implementing pre-disaster mitigation measures may help communities to recover more quickly from a disaster [29].

2.5 The Works Concept of MSP + DM

The variables used in the analysis of tourism development in Depok Beach are using the aspects of Marketing, Sustainability, and Participatory analysis called MSP + DM. DM stands for Disaster Management (mitigation). MSP + DM is specially designed as the initial measurement instrument to determine the condition of the initial development area. MSP + DM is also used for long-term development strategies and monitoring and evaluation of the implementation of its development. The concepts of MSP + DM are so relevant to tourism development program [11]. The diagram below explains MSP + DM be put in the early stages, at each stage of development, and at targeted stage, so the status and the progress of development can be understood in rational, objective, and parametric. That is why MSP + DM can be the initial condition measurement instruments as well as the basis for the gradual development of distinctive and multi years tourism development as shown in Figure 1.

![Figure 1. Role of MSP + DM on all stages of the condition](source: [11])

3. Methods

In the analysis of MSP + DM, the first thing to do is by setting and selecting the attractions that already exist and the potential attractions as contents that will be analyzed and revealed in the future. In addition, the content analysis is the first step to determine the problem. Content analysis is a research method which allows the qualitative data collected in research to be analyzed systematically and reliably so that generalizations can be made from them in relation to the categories of interest to the researcher [32]. The variety of attractions are then set out to assess in the parameters derived from.
the variables contained in aspects of Marketability, Sustainability, Participatory, and Disaster Mitigation. The parameters are then given the scale of the value (scaling) which is an instrument relates to the qualitative construction with quantitative metric units. The purpose of this scaling is to facilitate an assessment of every aspect of perception and provide consistency for all parties and in the future.

The use of a scale of values is considered can greatly reduce the subjectivity of each researcher/analyst or related parties in order to obtain an objective mind approach despite the change of personnel. Aspects that are considered infirm would be given high marks by the parameter value of 1 (lowest) up to 5 points (the highest). The shift value from a low value to a higher value indicates the position of the criteria that will be targeted for the development of targeted programs. Criteria are sorted from lowest to highest value named: Embryo, Pioneer, Growing, and Advance (see Table 1).

Table 1. Values Scale & Categories.

| Scales     | Categories |
|------------|------------|
| 1.00 - 1.99| EMBRYO     |
| 2.00 - 2.99| PIONEER    |
| 3.00 - 3.99| GROWING    |
| 4.00 - 5.00| ADVANCE    |

The most desirable targeted criteria is the Advance. Assessments and Indicator of MSP+DM can be observed in Table 2 of as follows:

Table 2. Assessment and Indicators of MSP + DM

| Parameters | Elements | Score 1 | Score 2 | Score 3 | Score 4 | Score 5 |
|------------|----------|---------|---------|---------|---------|---------|
| MSP+DM     | Elements of MSP+DM | Indicators | Indicators | Indicators | Indicators | Indicators |
|            |          | Embryo  | Pioneer | Growing | Advance |

4. Result and Discussions
After all the tourism attractions and potential attractions were mapped and recorded subsequently then the table of assessment and indicators of MSP + DM were prepared. The table will consistently being used in preparing development programs, monitoring the process and the progress of development, as well as evaluating the targets. The result of the parameters assessment were used to measure a variety of attractions and potentials in the area of Depok Beach then obtained a judgment as initial conditions
of the region. The results of the assessment in Depok Beach area is in GROWING category and can be seen by details in Table 3 as follows:

**Table 3. Initial Results Measurement Condition of Depok Beach Area Tourism**

| N | O ASPECT         | ASSESSMENT | 1. MARKETABILITY | 2. SUSTAINABILITY | 3. PARTICIPATORY | 4. DISASTER MITIGATION |
|---|------------------|------------|-------------------|-------------------|------------------|------------------------|
|   |                  | A | B | C | D | E | F | A | B | C | D | E | F | A | B | C | D | E | F |
| 1 | COASTAL          | 4 | 3 | 1 | 1 | 1 | 1 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| 2 | CULINARY RACING/A | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| 3 | ERO PLAY GROUND  | 2 | 3 | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| 4 | GROUND FISH      | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 5 | AUCTION SCIENCE  | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| 6 | PARK ART & MENT  | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 7 | LAGUNA WASTE MAN- | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 8 | MENT             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 |
| 9 |                  | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

**Total Average Value (2.89+3.11+3.17+2.89)/4=3.01**

**Category: GROWING**

5. Conclusions

This research resulted in the following conclusions: To develop a very dynamic situation and Long-term (multi-years) project condition of the rural tourist area in Depok Beach, analysis of MSP + DM can be used. This is a measurable, easy, and consistent tool and can reduce the subjectivity in assessing and evaluating a tourism development plan in Depok Beach CBT area. Each intervention plan that will be used in Depok Beach for reasons of tourism development destination must be completely measurable consistently to avoid local people denial and project slipshod risk. The variables in tourism should be properly addressed in a comprehensive manner before deciding a development program in Depok Beach.

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