The Development of Potential Blue Economy Activities in The Marine Protected Area: A Literature Review

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Abstract. Sustainable tourism is a concept that aims to reduce the negative impacts of tourism on the local environment, society, culture and natural heritage. In this context, research on sustainable tourism and the blue economy is essential to develop a responsible and sustainable tourism industry. The purpose of this study is to analyse the potential development of blue economy activities in marine protected areas, especially in the field of tourism. This research uses a descriptive bibliometric analysis method. Bibliometric analysis shows that the publisher that publishes the most articles about the blue economy in tourism is sustainability blue economy with a total of 200 articles. The use of Network and Density Visualisation software VOSviewer produces a visualisation of themes related to the blue economy, such as "tourism," "social welfare," "political economy," "contribution," "community," and "sustainable blue economy." This research shows the existence of tourism activities on welfare in marine protected areas.

Keywords. Blue Economy, Welfare, Sustainable Tourism, Marine Protected Areas.

1. Introduction

The tourism sector is categorised as an industry that will continue to grow in the world and can be used as a means to achieve sustainable development with very significant benefits in the economic, environmental and socio-cultural fields and provide the widest possible opportunity for local communities to improve their welfare. Tourism activities will create demand both in terms of consumption and investment which in turn will lead to the production of goods and services tourism is a complex industry because it involves several business sectors that support it, namely the hotel industry, restaurants and restaurants, land, sea and air transportation, handicraft industries, service industries such as travel agencies and tour guides, and others (Numansyah, 2014). Likewise, tourism in Indonesia is proven to contribute to economic growth (Mudrikah et al., 2014; Risman et al., 2016).

The Blue Economy (BE) has a close relationship with well-being. The Blue Economy concept aims to improve people's livelihoods and livelihoods along with economic growth, while preserving marine resources and coastal environments (Chandra, 2021; Maeyangsari, 2023; Martinez-Vázquez et al., 2024).
Tourism activities are also one of the solutions to improve community welfare (Adinugroho, 2017; Rif‘an & Irawati, 2020; Setijawan, 2018). The implementation of the Blue Economy can increase the tourism potential in coastal areas by strengthening tourist attractions and utilising marine resources sustainably. The implementation of the Blue Economy encompasses many activities, including tourism, which can contribute significantly to economic growth in coastal areas. Sustainable tourism in the future will increase, potentially putting pressure on the environment. The impetus for the need to implement the Blue Economy will increase faster than in previous decades. In order to obtain a comprehensive understanding of the implementation of the Blue Economy, a tool that contains indicators of ocean health is needed. Essentially, the Blue Economy concept is a lens through which to view and develop a policy agenda that simultaneously improves ocean health and economic growth, in a manner consistent with the principles of economic well-being and benefit as illustrated in the following Figure 1.

![Figure 1. Blue Economy Concept](image)

The Ocean Health Index (OHI) is a framework for assessing ocean health based on the provision of sustainable benefits and services that people expect from a healthy ocean, such as food, cultural and social values, and jobs. (Halpern, 2020). The sectors used in this study include: the ocean as tourism and recreation services, protection of marine protected areas, the ocean as a source of livelihood and economy, clean waters and the ocean as a natural product.

As part of sustainable development, the Blue Economy concept is defined as marine asset management, intensive mobilisation and investment, expansion of marine protected areas, data collection, tourism development, and bouncing back from the Covid-19 pandemic (Bali Provincial Government, 2023). The application of the Blue Economy concept can help achieve the Sustainable Development Goals (SDGs) (Lee et al., 2020; Wenhai et al., 2019). The BE concept integrates sustainable development and green growth, emphasising comprehensive planning and coordinated development of marine ecosystems and coastal and ocean economic systems (Garcia & Cortes, 2023).

2. Method
A particular study or topic, through the analysis of bibliographic data, including the number and quality of publications, authors, subjects, journals, and citations. This method allows researchers to identify activities, patterns, and developments in the field of study and understand their influence on future research (Donthu et al., 2021). The reason researchers use bibliometric methods is because with this method it can be seen how current and previous activities related to research on the blue economy
in tourism and as a start to carry out further research on the topic of blue economy, the first step in conducting bibliometric analysis is to collect bibliographic data relevant to the research topic, this data can be taken from Google Scholar and researchers determine various inclusion and exclusion criteria set to narrow down publications that are more relevant to the topic of blue economy in tourism. The inclusion and exclusion criteria consist of publications related to the field of blue economy in tourism, English-language research, international publications. As for the provisions of the exclusion criteria that will be used are publications that are not duplicated, publications that have no relation to the blue economy in tourism. Then, researchers use special software to process and analyse data, such as VOSviewer, which will be described in the results and discussion. Bibliometric analysis consists of four steps such as the search stage, filtering stage, bibliometric attribute checking, and bibliometric analysis, in the first stage researchers have searched data from the google scholar database. This bibliometric analysis is carried out based on the aim to help conduct bibliometric analysis and visualise the results of data analysis obtained from publish or perish (PoP) sourced from google scholar with the keywords Blue Economy, Welfare, Sustainable Tourism. Data collection was carried out using the Publish or Perish (PoP) application on 5 April 2024.

![Data Collection Process with PoP Application](image_url)

**Figure 2.** Data Collection Process with PoP Application

Based on Figure 3 below is the process of collecting Google Scholar databases through PoP with the publication year of the article is "2019 to 2023". Based on the results of data searches through PoP, 200 articles were obtained which are the population of this study. Then to carry out visualisation using the VOSviewer application, this application is used because it is good and efficient with a large information index and can provide a variety of interesting visuals, examinations, and investigations. The next stage of the researcher conducts bibliometric analysis and what is used is descriptive bibliometrics that describe the characteristics or characteristics of a literature. Bibliometric analysis is used for various reasons including revealing trends that appear in articles and journals (Donthu et al., 2021). This bibliometric analysis is carried out based on seven aspects, namely the formulation of the problem posed. To help conduct bibliometric analysis and visualise the results of the analysis, the VOSViewer application is used because it is good and efficient with a large index of information and can provide a variety of interesting visuals, examinations, and investigations.

3. Introduction

The bibliometric analysis results of this study refer to (Donthu et al., 2021). There are two categories of analysis, namely performance analysis in the form of: number of publishers, number of authors, publications per year, articles with the most citations, and science mapping in the form of: Network
Vizualisation and Density Vizualisation. Article publisher data through PoP related to blue economy activities in the tourism sector with the period 2019 to 2023. Figure 4 below shows the Google Scholar indexed journals with the highest number of publishers of articles on blue economy, welfare, sustainable tourism, marine, conservation, areas, it has been identified that the Area journal has the highest number of articles, namely 132 articles, followed by Blue Economy with 123 articles, and Marined with 88 articles. In addition, several other journals were also identified with a lower number of articles.

**Figure 3.** List of Term of Blue Economy Information Research on Vosviewer

After the dataset is saved in RIS (Research Information Systems) type using Publish or Perish metadata, the dataset is analysed using the Vosviewer application by selecting the 'data create a map based on bibliographic data' option. The method used to calculate the dataset is full counting with the aim of calculating what is done according to researchers who have taken the topic of blue economy in their research.

**Figure 4.** Bibliometric Visualisation Network Using Vosviewer
This data shows that there is a diversity of themes related to the blue economy that are the focus of attention in research and discussion. Each cluster reflects various aspects that are interrelated with sustainable development, sustainable tourism, marine protected areas, and welfare. The empirical implication of this result is that themes that belong to the same cluster can be used as research topics that are related to each other. The theoretical implication of this result is that research topics on blue economy can be categorised into several clusters with different topics, but still related to the main topic. The practical implication of this result is that researchers can use this result to select more focused and specific research topics according to the desired cluster.

The Density Visualisation results of VOSviewer software in the following figure show the density. The density of research themes is shown in a bright yellow colour. The brighter the colour of a theme means that more research has been done. The fainter the colour, the less researched the theme is. Dimly coloured themes such as "conservation, community, blue growth, ecosystem services, ecotourism and management" are themes that can be used as references for further research. Furthermore, mapping analysis on Density Visualization shows that the themes of "sustainable tourism, marine, welfare, tourism, and area" are quite widely researched in research related to the blue economy. This can be a novel theme in terms of research and reference material for further research development. Therefore, researchers can consider conducting further research in these themes.

The themes that are still rare can be caused by several factors, including a different research focus, previous research is more focused on sustainable development and novelty of the themes that are dim can indicate that the field of research is still relatively new or less known in the context of the blue economy, it can be concluded that the blue economy and sustainable tourism is the main focus of research that has received attention and high research density. Meanwhile, other themes that are still rarely researched indicate that there are opportunities for further research and development in the context of the blue economy. It is important to continue to study and research under-researched themes to expand the understanding and development of knowledge about the blue economy and its impact on environmental, economic and social aspects (Vesere et al., 2021). Thus, the results of the Network Visualization and Density Visualization analysis of VOSviewer software can be a guide to identify research areas that still need further exploration and can be a reference for further research in the field of blue economy.
4. Conclusion
The writing of articles in Google Schoolar indexed journals about blue economy activities in tourism occurred in the period 2019 to 2023. It can be concluded that the previous research which focus on blue economy activities in tourism related with marine protected area, tourism-related jobs, community, participation, and others related with sustainable development. The mapping results using VOSviewer software showed 30 clusters related to 132 themes related to the blue economy. This can be a source of information for further research related to themes that are still rarely researched.

The empirical implications of this research can provide an overview of the blue economy activities needed in tourism-related jobs. The theoretical implications of this research can contribute to the development of theories related to the blue economy, especially in the field of tourism. While the practical implication of this research is to provide useful information for researchers and practitioners to develop those needed in sustainable tourism-related work. Suggestions for future researchers are to examine more deeply what blue economy activities are needed in tourism-related work and use qualitative methods to gain a deeper understanding.

References
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