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## Tourism Science Development Strategy : Interdisciplinary and Supradisciplinary Approaches

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**Abstract:** This research focuses on library studies and scientific journals related to tourism science. The data sources took 3 English language books and 3 Indonesian language journals. The data is sorted and selected to separate theoretical studies and practical studies. The aim of the research is to create a concept for a strategy for developing theoretical tourism science and applied tourism science. The research results obtained a strategic model for developing science based on interdisciplinary and supradisciplinary paradigms. scientists, and stakeholders to collaborate with various scientific disciplines in an effort to solve the complexity of the world of tourism with new ways and cultures of thinking. The idea of interdisciplinary and transdisciplinary is the "second way" of the "Scientific Integration-Interconnection" paradigm which seems to always be relevant to future tourism scientific trends. The style of relationship between cultural, natural, social and humanities disciplines in the modern and post-modern era is semipermeable, intersubjective testability and creative imagination.

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## 1. INTRODUCTION

Scientific theories are constantly changing. This is not just due to coincidence but may be expected, in accordance with scientists' characterization of empirical science (Popper, 2008). Scientific knowledge has basic substance; facts, and truth, systematic logic, and expediency (Latif, 2020) for a civil life. The substance of tourism science at a relatively young age (16 years) is required to have the function of explaining, predicting future processes and products, or providing meaning to tourism development. Tourism touches various aspects of human life, Indonesia has tourism potential and competitiveness as well as quite large opportunities to develop, both natural, cultural and special interest tourist attractions and developed sustainably (Nugroho, 2018). To develop the world of tourism so that it can care for and provide community welfare, a tourism science development strategy is needed.

The aim of this research specifically will be to examine the strategies for developing tourism science carried out by previous research that has carried out the groupings mentioned above. The development of tourism science prepares a science development strategy that can

provide insight and guidance so that tourism science does not fall short in providing theoretical responses to developments in the world of tourism practice.

Tourism is believed to be an industry that can become the backbone of the national economy, and can encourage rural communities to play an active role in tourism industry activities (hospitality). One indicator of the sustainable tourism industry is the involvement of local communities in designing, determining operations, carrying out activities, controlling and having benefits that can be a force to reduce the risk of natural damage. On the other hand, the economy is not the main issue of tourism development policy, but the issue of quality of life and human dignity is the most important essence. Tourists in the study of philosophy, not dualism philosophy which separates the two essences between soul (spiritual) and body (raga). Human Me and others, I am not a single, unique individual, but I am together with others who are different (Abidin, 2006, Snijders, 2008, Sihotang, 2013).

This research obtained two models of science development, namely development based on interdisciplinary and supradisciplinary or transdisciplinary paradigms. The lawsuit against the understanding that science is only possible in the context of justification is a rejection of logical positivism (empiricism) as a radical form of disciplinary thinking which assumes that verification is the only valid scientific method (Poespowardojo, 2016). Empirical sciences are systems of a collection of theories, so that the logic of science can be described as a theory from a collection of existing theories. Theory is a net thrown to capture what is called the world in order to rationalize, explain and master it (Popper, 2005, Sompotan, et al, 2011). Experience as a context of justification by means of verification is one approach. Experience can also be seen as a context for the discovery of scientific knowledge (context of discovery) (Poespowardojo, 2016).

## **2. RESEARCH METHOD**

Qualitative research design with the aim of developing a detailed and in-depth understanding (Joi, 2023) of the tourism science movement using a literature study approach. Literature study is a description of theories, findings and other research materials obtained from reference materials as the basis for research activities (Latansya, et, al, 2023). The Literature Review contains critical, radical and comprehensive analysis of related, current and adequate literature. Researchers compile summaries and thoughts on several library sources (articles, books, slides, information from the internet, etc.) regarding the topics discussed (Natasya, et,al, 2022). Theoretical foundations, theoretical reviews and literature reviews are criticized to

construct the logic of tourism science development strategies in providing views and monitoring the work of tourism science (Noho, et al, 2022).

Methodological steps used In this paper, there are several methodical steps, namely: Description Analysis: namely providing a radical and clear picture of several fundamental problems that are of concern in this paper. Likewise, the research results are described clearly. The second step is to carry out Interpretative Analysis, namely interpreting the science/substance of scientific libraries and journals in order to see and understand the overall context. Synthesis Analysis, namely carrying out a careful analysis of several problems, looking for the main causes of the problems and the relationship between several of these things which are discussed in literary sources. This analytical work creates a synthesis which produces a general picture of the discussion within a theoretical framework. The idealization stage, namely by providing an alternative solution to the problem that will be addressed. This alternative solution seeks to be an ideal idea, but this alternative is normative in nature which is a basic assumption (Sutopo, 2023).

### **3. RESULTS AND DISCUSSIONS**

#### **Interdisciplinary**

*Interdisciplinary* is a research model that combines or integrates two or more scientific disciplines - can be methods, techniques, data, theories, perspectives or others - to maximize scientific development. Interdisciplinarity has its roots in the 1930s, when 'big concepts', such as quantum mechanics, forced academic disciplines to work together, and its popularity came and went gradually. In the 1960–70s, a more politically and socially motivated push for interdisciplinarity took shape, driven by a desire to break down barriers in and around academia, which laid the foundation for the interdisciplinary university programs and centers that exist today (Chettiparamb, 2007). To understand interdisciplinarity, one must first explain what discipline is. Can be categorized as science if it has; object of study, methodology, systematics, and universal truth values (Sarhini, 2010).

A clearer definition is given by Squires (1992). According to Squires, scientific disciplines are differentiated based on; 1) what it is about, its object, 2) its stance towards that object in the production of knowledge: methods, techniques, and finally 3) its way of operating: in a normative, reflexive or philosophical way. In a simple example, the discipline of medicine would traditionally be: 1) about the human body, its functions and diseases, 2) investigated through measurable physical measurements, 3) operating in a normative mode (not reflecting its own nature to anyone). significant level). Even this simple example makes disciplinary

constraints clear, as much everyday medical research and approaches transcend, redefine, and act in opposition to these principles. Therefore, interdisciplinarity may be less of an ideal and more of a necessity, in a complex and ever-changing world. Interdisciplinary arguments can be divided into normative arguments, which seek to justify their existence, and phenomenological arguments, which derive from observations of practice. Normative arguments are usually put forward to fill disciplinary knowledge gaps, or disciplinary transcendence in a broader sense. The phenomenological argument mainly emphasizes that interdisciplinarity always exists within a scientific discipline, and its development is related to the progress of the scientific discipline (Chettiparamb, 2007).

### **Supradisciplinary or Transdisciplinary**

Is a research model that tries to combine things contributed by various scientific disciplines into one breath that leads to the development of newer knowledge, including new insights and intellectual insight. Transdisciplinary research produces, unites, and regulates network traffic of various research groups, knowledge users, government, civil society, the private sector, and industry to promote problems and the common good related to certain problems currently facing humanity.

Transdisciplinary Approach to Natural Sciences and Social Sciences Problem solving, innovation, creativity, invention, imagination, transformation, utilization of technological developments, entrepreneurship, openness in thinking are the basic ideas and philosophy behind the importance of a transdisciplinary approach . Transdisciplinary learning and research does not have to be limited to efforts to combine science and technology. EO Wilson reintroduced the term 'consilience', the unity of knowledge (Abdullah, 2021, Marliat, 2022). Transdisciplinarity can also be applied in one group of sciences, for example in medical science, specifically regarding the birth of babies, where those involved are specialists in obstetrics, midwifery, nursing, and others (Marques, 2020).

### **Development of tourism science**

Development can use interdisciplinary or transdisciplinary approaches. Interdisciplinary use of development is intended for problems that require theoretical solutions for the sake of practical solutions. Transdisciplinary strategy development is intended for theory development for theory construction on newer issues. The supradisciplinary characteristic imposed on science is intended to show the advantages of a scientific approach in analyzing the problems of social life with what is commonly called an "interdisciplinary" approach. The

supradisciplinary approach illustrates that the development of science requires collaboration (not just collaboration) between individuals from various disciplines who collectively develop cross-disciplinary analysis on topics such as family and power, the transition from markets controlled by individual capitalist systems to markets controlled by state capitalist systems. The difference between the "supradisciplinary" approach and the "interdisciplinary" approach is that in the interdisciplinary approach individuals from different disciplines come together to consult, for example assigning specialists from different disciplines to conduct research on different topics, according to their respective disciplines. each. The "supra-disciplinary" approach to cooperation is not limited to "interdisciplinary" cooperation which produces new directions (Poespowardojo, 2016).

#### **4. CONCLUSION**

Tourism science is not absolute, moves dynamically and is open, can be corrected and proven and tested for truth. Scientific theories can never be completely justified, but they can still be tested repeatedly. The objectivity of a scientific report lies in the fact that the theory can be tested inter-subjectively, after generalizing the formulation. Inter-subjective testing is an effort of mutual rational supervision through critical discussion. Two approaches, both interdisciplinary and supradisciplinary or transdisciplinary, can be used as strategies for developing tourism science.

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