

An Analytical Network Process (ANP) Approach to the Public Policy Innovation Strategy Model: A Case Study of Pamekasan Regency Tourism

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Abstract

This study explores the innovation model and the role of public policy in tourism development within Pamekasan Regency, utilizing the Analytical Network Process (ANP) approach. It primarily seeks to identify and rank key factors that affect the effectiveness of tourism policy and offer strategic recommendations for improving its development. The research adopts a mixed-method approach that encompasses qualitative insights, including expert interviews and extensive literature reviews, as well as quantitative data collected through a structured questionnaire based on ANP administered to experts, managers, and public decision makers in the tourism sector. Results indicate that, among others, human capital is the most important component of tourism development, followed by institutional/bureaucratic improvements, then accessibility. This emphasis on human capital is in line with endogenous growth theory, which underlines the role played by people in driving economic prosperity. On the other hand, institutional improvement promotes efficient policies for promoting tourism, while accessibility, although ranked lower, still remains crucial for enhancing visitors' experiences. The recommendations for strategy consist of rigorous training for personnel in the tourism sector, the easing of license and permit procedures, and the development and enhancement of transportation and communication networks. The aim of these strategies is to promote a balanced and sustainable growth within the tourism industry. The study's rigorous empiricism and theoretical framework offer strong support for the suggested strategies and make theoretical and application-level contributions to tourism management. In this research, by connecting the research results to the endogenous growth theory and supporting the results with a literature review, useful information and strategic solutions for international policymakers and stakeholders in Pamekasan Regency are provided.

Keywords: Tourism Policy, Analytic Network Process (ANP), Endogenous Growth Theory, Pamekasan Regency, Public Policy Innovation

A. INTRODUCTION

One of Indonesia's regencies, Pamekasan Regency, is situated between Sampang Regency and Sumenep Regency on Madura Island. Compared to the other three districts, Pamekasan Regency only boasts a limited number of prominent tourist attractions, including Jumiang Beach, Talang Siring Beach, and the Eko Lembung mangrove tourism area. A complex process involving various aspects culminates in tourism policy. Tourism policy is essential for the government in the context of significant market changes in tourism. Tourism is a multidimensional and cross-sectoral industry. All stakeholders' involvement is substantial because tourism is not a stand-alone sector (Theobald, 2005).

Travel and tourism are considered one of the largest and most diverse economic sectors in the world, as they are one of the primary industries that positively impact the economy of a destination (Canosa et al., 2018). Tourism is an activity with a multiplier effect that indirectly encourages the development of other sectors, especially in the economic, social, territorial, and heritage sectors. Regional tourism development will promote employment and the growth of small and medium enterprises controlled by local communities. The tourism sector incorporates the principle of integration into its various development sectors, which have significant economic and social impacts.

The tourism potential in the area led to the selection of Pamekasan as the focus of tourism research. Data on the number of tourist visits and tourist income are essential indicators in evaluating the contribution of tourism to the economy. With the names of the tourist destinations Api Tak Kunjung Padam, Jumiang Beach, Talang Siring Beach, Pasarean Batu Ampar, Makam Ronggosukowati, Mandhilaras Museum, and Eko Lembung mangrove tourism listed in Figure 1, the number of tourist visits reflects the interest and popularity of tourism destinations. On the other hand, tourist income encompasses the expenses incurred on accommodation, food, transportation, souvenir shopping, and other tourism activities. This helps the local government and related parties analyze the economic impact of tourism, plan development strategies, and optimize tourism management to strengthen the tourism sector's contribution to the economy of Pamekasan Regency.

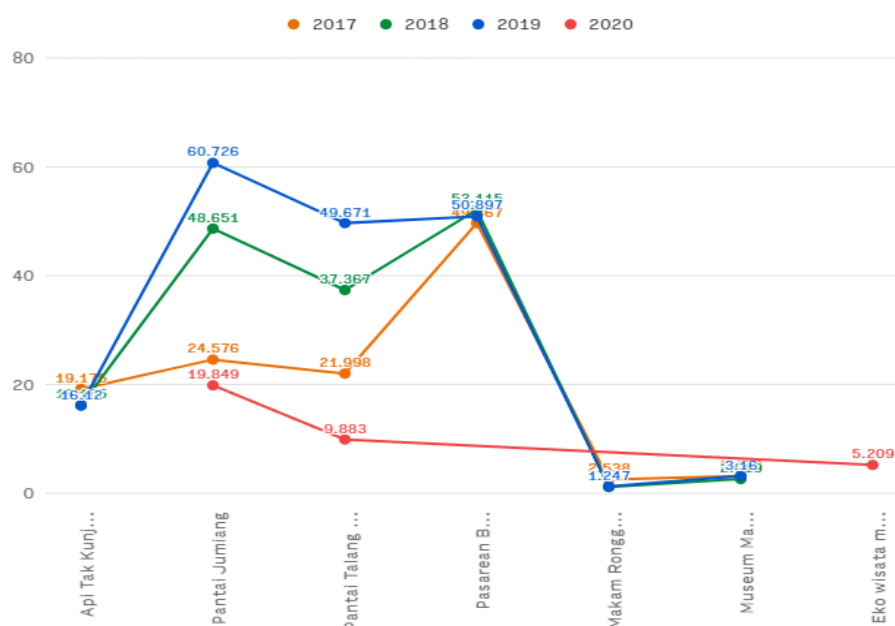


Figure 1. Visitor Data for Tourist Attractions in Pamekasan
 Source: Disporapar Pamekasan, (2022)

Data on the number of tourist visits and tourist income are important indicators for evaluating the contribution of tourism to the economy of Pamekasan Regency. The number of tourist visits reflects the interest and popularity of tourist destinations, while tourist income includes their expenditures on accommodation, food, transportation, souvenir shopping, and other tourist activities. This helps the local government and related parties analyze the economic impact of tourism, plan development strategies, and optimize tourism management to strengthen the tourism sector's contribution to the Pamekasan Regency economy. Innovative policies, a culture of innovation, the use of technology, collaboration between the public and private sectors, and performance evaluation are among the indicators that can gauge the level of government innovation (Catalá-Pérez et al., 2020). Using these indicators assists the government in measuring and monitoring the level of government innovation and identifying areas for improvement to create an environment conducive to innovation in government.

Local government innovation in the autonomy era has a legal basis as a public policy framework. The Indonesian Ministry of Home Affairs (Kemendagri) named Pamekasan Regency the most innovative district in Indonesia in the Innovation Government Award (IGA) in 2022 and will continue to appropriately

maximize existing innovations for the community's benefit. Utomo and Widodo (2017) opined that innovation is no longer mistakenly considered a deviation from specific rules and is not considered a personal initiative of a regional leader. Institutional and populist aspects influence the creativity and innovation of government officials in managing the potential of natural attractions in autonomous regions. The government, particularly those responsible for the Tourism Office, faces a challenge in managing potential tourist attractions in a creative and innovative manner, given the strong interest in tourism (Azhari, 2018).

The Ministry of Home Affairs of the Republic of Indonesia awarded the Pamekasan Regency the Innovation Government Award 2022 as the most innovative district, setting an example for encouraging innovation in governance. Pamekasan has successfully created an enabling environment for innovative policy development. This has not only resulted in national recognition but also provided valuable capital for further research and sustainable development, as well as inspiring other regions to implement innovative approaches in governance.

Governments formulate public policies to address the challenges they encounter. These issues manifest in the form of economic challenges and other areas that necessitate attention and decision-making. The policy will be capable of effectively addressing policy implementation and related issues. According to Nugroho (2014), the implementation of a policy determines its success. 60% of the time, as a policymaker, the government will develop economic policies to overcome financial problems. The government must pay attention and ensure that tourism development can bring social, economic, and environmental benefits and costs. While Wanhill (2000) argues that profit-oriented business people cannot regulate what they will do. However, the government can control what they should not do through policies and regulations, such as requiring land use plans, permits, licenses, qualifications, and following laws and regulations (Theobald, 2005).

Selecting policy instruments will be challenging as they rely on detailed and in-depth analysis of the most effective implementation objectives, not on incomplete or partial studies. Prioritization will also depend on ethical and political principles. Currently, development issues at the tourism level primarily focus on technical aspects, while political issues encompass all aspects of tourism within a sustainable tourism system. Endogenous growth theory is a theoretical framework that explains economic growth as the result of internal factors, such as investment in human capital, research and development, and innovation. In contrast to exogenous growth theory, which attributes economic growth to external factors such as population growth or technological progress, endogenous growth theory emphasizes the role of humans in driving economic growth (Aghion et al., 1998). Novelty or renewal in this research lies in using the Analytical Network Process (ANP) approach to analyze the innovation model and the role of tourism public policy in the Pamekasan Regency. ANP will help determine the most optimal innovation model and public policy for tourism in Pamekasan Regency. Applying the ANP method in this research identifies crucial elements, such as infrastructure, tourism promotion, accommodation facilities, and local community support for the tourism sector. The level of importance of each component is evaluated by assigning appropriate weights, which in turn will assist in determining priorities in policy decision-making.

This study explores the intricate nuances of tourism policy, with a particular focus on Pamekasan Regency, by examining the influence of innovation on local economic development. The research employs the Analytical Network Process (ANP) to examine the function of public policy in the context of tourism, with a particular focus on infrastructure, promotion, accommodation, and community support. The study aims to address a gap in the existing literature by applying the Analytical Network Process (ANP) to prioritize the factors affecting the effectiveness of tourism policy, including accessibility, institutional bureaucracy, and human resources. Ultimately, the study seeks to enhance sustainable economic growth

in the tourism sector. By addressing key research questions, this study makes a contribution to both theoretical understanding and practical implementation in the field of tourism management.

B. LITERATURE REVIEW

Public Policy Innovation Concept

Public policy innovation emerged as a response to the problems governments face in addressing complex and changing public issues. Governments generally rely on conventional public policies, but sometimes these practices are less effective and efficient in addressing these problems. Public Policy Innovation emerges as an effort to improve and enhance the public policy-making process by using a more creative, innovative, and evidence-based approach. Public Policy Innovation emphasizes the importance of public participation, impact analysis, stakeholder cooperation, and continuous evaluation in policy-making (Boulhosa et al., 2021; Criado et al., 2021).

Public policy innovation can involve various activities, such as problem analysis, identification of new solutions, policy design and implementation, and evaluation of results. The ultimate goal of public policy innovation is to improve people's quality of life by addressing public problems and meeting people's needs effectively and fairly (Villa-Alvarez, 2022). Policy innovation is at the core of programs in most countries but occupies a less prominent place in strategies to promote inclusion. Other policy areas such as education, social market policy, competition, and fiscal policy have significantly promoted more inclusive policies (Planes-Satorra & Paunov, 2017). Understanding, measuring, and encouraging the impact of public policy research is crucial, such as in the study by Williams and Lewis (2021). In their study, a framework brings together message, medium, audience, engagement, influence, evaluation, and affordance within the logic of different fields. It sets out a new way of considering research goals, measurements, and incentives in an integrated manner by accounting for the reasons of other areas, which encompass disciplinary, institutional, and intrinsic factors, the framework provides a new way of harnessing measurements and incentives towards fruitful learning about the contribution diverse types of public policy research can make to a wider impact.

Keumala and Pribadi (2021) conducted a study on government innovation in social science. This study utilized the NVivo analysis tool to examine a variety of social science articles. The study showed that the main issues in government innovation are people, actors, politics, policies, and institutions. The study also revealed that decision-making and organizational capacity building can benefit from government innovation. Another study by Antonioli and Marzucchi (2012) evaluating the added value of innovation policy concentrates on the behavioral dimension. This study reviews the literature on additionality, paying particular attention to the behavioral extent. They also underscore that, despite its lack of clarity and some shortcomings, the behavioral dimension enhances the input and output dimensions of the additionality concept, enabling the evaluation of innovation policies from an evolutionary and systems perspective.

Several studies also analyze the impact of public procurement policy on innovation, such as the study by Senden (2015a), which investigates the concept of cross-country learning in public procurement creation. The main findings show no strong evidence for cross-country learning, and lessons learned remain largely implicit. Furthermore, Senden (2015b) also conducted a study about buying innovation in public procurement and the concept of cross-country learning regarding innovations in public procurement. The main findings show no strong evidence for cross-country learning, and lessons learned remain largely implicit.

Study by Wellstead et al. (2021) also highlights the importance of cross-country learning and the need to implement policies that promote innovation across sectors and regions. Measuring and evaluating public policy innovation can be a complex task. This article highlights the importance of evaluating policy

innovation labs (PILs) to measure their efficacy. PILs use experimental approaches to testing and measuring the effectiveness of comprehensive public policy and intervention program prototypes. The article suggests evaluating PILs based on their role in policy work, their status as street-level policy entrepreneurship settings, and the need for more rigorous inferential methods. It assesses the added value of innovation policies. Another study by Garanti et al. (2014) shows that public policy innovation is a complex and multifaceted concept involving various dimensions, such as the public, actors, politics, policies, institutions, and behavioral aspects. This study shows that cluster-based entrepreneurship is important in driving firm performance, competitiveness, and innovation. The findings demonstrate the implementation of the cluster concept across all levels of EU policy planning documents. In contrast, the implementation of cluster policy extends beyond a single policy issue at the country level, encompassing industry, regional, and other policy aspects.

Studies focusing on the literature review of the behavioral dimension with additionality, devoting particular attention to its behavioral extent, add to the input and output parts of the additionality concept and can be used to judge innovation policies from both an evolutionary and a systemic point of view (Antonioli & Marzucchi, 2012). A recent study also found the current status of innovation ecosystems. The study reviewed publications about the post-transition innovation ecosystem (IE) concept, with a particular focus on the period 2017-2019, which saw a surge in publications compared to the first 24 years. The research reveals several new research suggestions related to actors, infrastructure, and financial capital for innovation, public policy, social capital, and development, IE governance, and IE boundaries (Foguesatto et al., 2021).

This study will adapt Romer's endogenous growth theory; this theory emphasizes the role of knowledge and ideas in driving economic growth (Schilirò, 2019). The theory posits that factors within the economy rather than exogenous or external ones drive technological change endogenously. Romer's theory makes three key assumptions: According to the theory, the production of knowledge yields increasing returns to scale, making it easier to acquire more knowledge. Secondly, there is no competition among ideas, allowing multiple individuals or companies to utilize them without experiencing exhaustion. Third, is human capital a key driver of economic growth, especially in education and research activities? Institutions, such as property rights, are important to encourage knowledge creation. Moreover, various contexts, such as the Czech economy (Simandan, 2008) and the US economy (García-Gómez, 2022), have applied Romer's theory. In general, some critics argue that this theory ignores the role of gene-meme interactions and individual differences in intelligence in promoting economic growth (Kristkova, 2012).

C. RESEARCH METHOD

This study employs a mixed-method approach, integrating both qualitative and quantitative methods to provide a comprehensive analysis of the innovation model and the role of public policy in tourism within Pamekasan Regency. The integration of these methods allows for a more robust and nuanced understanding of the research problem, thereby ensuring that the findings are both comprehensive and reliable. An qualitative approach method will identify factors that contribute to long-term decisions about policy implementation. The descriptive qualitative method also aims to provide insight to various groups about their willingness and ability to implement the tourism policy of Pamekasan Regency. This is achieved by studying the literature to obtain information from various sources. Simultaneously, one can express quantitative analysis in numerical terms. The numerical method uses ANP (Analytic Network Process) and secondary data on public policy research variables to provide an overview of the number of cluster distributions and tourism policies in Pamekasan Regency.

The research design follows three main stages, in line with analytical network process (ANP) principles, using a sequential mixed-methods approach. In Stage 1, qualitative methods involve expert interviews and a literature review to explore issues and strategies in Pamekasan Regency's tourism sector. Stage 2 focuses on quantitative analysis through questionnaire design and data collection from knowledgeable respondents. Stage 3 employs ANP for data analysis using Super Decisions software to determine relative weights and priorities, offering a comprehensive view of tourism policy in Pamekasan Regency. This meticulous research design ensures a thorough examination of tourism policy innovation through a mixed-method approach, enhancing the validity and reliability of findings for future research and policy recommendations.

The Analytic Network Process (ANP) is a decision-making method that considers complex, interdependent criteria and alternatives. It is a multi-criteria decision-making (MCDM) method that can evaluate and prioritize different options based on standards (Romindo & Jamaludin, 2019). The ANP method creates a network of criteria and alternatives, connecting each measure and alternative to others in the network based on their relationships. The method then uses pairwise comparisons to determine the relative importance of each criterion and alternative in the network. Various fields, including site selection for wind farms (Mokarram et al., 2022), evaluation of sustainable development of resource-based cities (Li et al., 2017), and prioritizing supply chain practices (Akbarzadeh et al., 2019), can utilize the ANP method. The ANP method can provide a quantitative basis for decision-making and help make data collection easier while decreasing the calculation.

The Analytic Network Process (ANP) method informs the use of the Super Decisions software for decision-making. Several researchers have used the software in public policy research, such as Rui et al. (2003), who evaluated the construction plan for a hydroelectric power project. Another study focuses on solving decision-making problems based on ANP and BOCR models. Such as comparing alternatives and identifying the best option, especially in the transport sector (Ismael et al., 2020); modifying the large-scale development strategy system (Ruano & Huang, 2023); making suppliers' adoption of electronic invoicing a priority (Kivijärvi et al., 2011); and evaluating wind farm site selection with the least impact on environmental pollution (Mokarram et al., 2022). Applications such as energy, transport, and supplier management demonstrate the versatility of the Super Decisions software. The software can make data collection easier while decreasing the calculation and providing a quantitative basis for decision-making. The software employs the ANP method, which enables the consideration of complex, interdependent criteria and alternatives (Adams & Saaty, 2003).

This research is made more focused so that it is right on target, so the research process carried out can be illustrated in Figure 2 to carry out steps from the data collection process, from the following problems carried out according to the design needs to build a system and refer to the needs of the issue at hand. This study utilized the Analytic Network Process (ANP) in three stages. We held in-depth discussions with experts, practitioners, and regulators during the first stage to better understand current issues regarding tourism policy implementation. In the second stage, we used the first stage's results to design a questionnaire and collect data from respondents. The third stage employed ANP research to analyze solutions, problems, and implementation plans for tourism in Pamekasan Local Government. The ANP structure consists of dependencies between internal components and dependencies between external component elements. The network in ANP makes it possible to represent many problems without focusing on the beginning and the end, like in AHP. In this research a structure model that places Objectives/Goals at the highest level, Criteria (Accessibility, Bureaucracy, Human Resources) at the second level, and Sub-Criteria (Quality of Human Resources, Licensing Model, Infrastructure) at the lowest level, in accordance with the quantification model of problem identification and data collection. This research is conducted according to a logically and systematically organized method of a series. The ANP method assesses and

controls risks to generate priorities based on risk types and factors. The ANP method is based on ANP, which can identify the existence of interrelationships between sources (Michael, 2006).

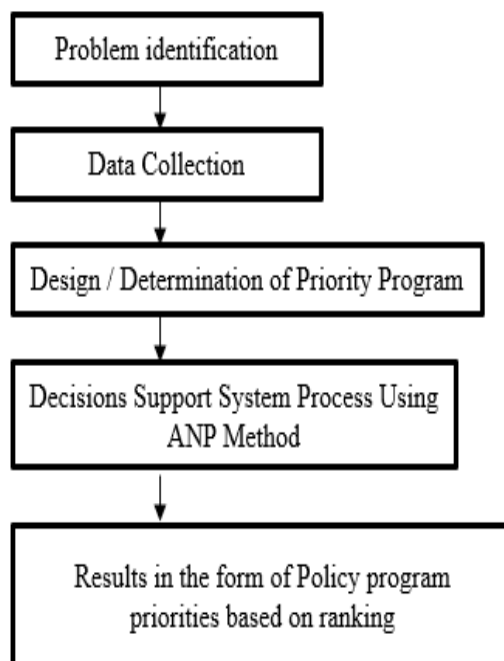


Figure 2. Research Procedure

This research uses a survey/questionnaire-type data collection method. Informants fill out this questionnaire, which contains questions related to the research problem. The questionnaire was made using the ANP method and a multiple-choice scale to facilitate data collection. This study's data collection technique involved distributing a questionnaire to 9 respondents. Sample selection is done by selecting individuals or groups with certain characteristics considered important to fulfill the research objectives. In this case, sample selection is not done randomly but based on predetermined criteria. The study's population comprises experts, managers, and public decision-makers in the tourism field. The selection of samples in this study was made deliberately by considering the informants' understanding and knowledge of the problems of tourism policy implementation in the Pamekasan region.

ANP research does not use the number of respondents to indicate accuracy, as it requires valid respondents who have mastered or are experts in their respective fields (Mustafida, 2015a). Respondent comparison questions will be combined to form a consensus. The geometric mean is an average calculation showing patterns or values that will be used for model quantification analysis. Rater agreement is an indicator of respondents' agreement level on a cluster. The instrument used to measure rater agreement is Kendall's Coefficient of Concordance (W ; $0 < W \leq 1$). $W=1$ indicates perfect agreement. If the test value of W is 1, it can be concluded that the assessment or opinion of a balanced respondent has an ideal match. (Mustafida, 2015b).

The construction of the ANP structure model of innovation, along with the role of the tourism public policy in Pamekasan Regency, involves the formation of a hierarchy and the identification of elements relevant to the problem. The main objective of building this model is to increase innovation in tourism in Pamekasan Regency, which is the main focus of public tourism policy. Accessibility, institutional/bureaucracy, and human resources are identified as essential criteria that affect the creation and role of tourism public policy in Pamekasan Regency; Table 1 provides an alternative identification of these requirements.

Table 1. Alternative Identification

Criteria	Sub-Criteria
A. Accessibility	(A1) Availability of transportation and communication facilities
	(A2) Access between attractions (tourism promotion media: social media, billboards)
	(A3) Road conditions to tourist attractions
B. Institutional/Bureaucratic	(B1) Licensing model/ease of licensing
	(B2) Digital-based tourism development (Social media, public service advertisements)
	(B3) Effectiveness of Tourism Policy on RKPD Regional Development Work Plan
C. Human Resources	(C1) Developments related to enhancing skills through training
	(C2) Services in good management and regulation in the field of tourism
	(C3) Support by organizations, local governments, groups, or tourist destination managers to organize tourism activities

Adapted from: Schilirò, (2019)

In this study, an analytical method is used to understand the complex relationships between elements in a hierarchy to generate relative priority weights for each component based on relative preference and influence. Pairwise comparison data between elements in the hierarchy is collected using questionnaires to produce conclusions on priority weights. In the model quantification stage, the ANP (Analytic Network Process) method pairs up cluster factors and compares them to find the ones that have the biggest effect and the level of difference between them. The Saaty scale (Saaty & Vargas, 2006) commonly serves as the comparison scale in ANP, ranging from 1 to 9. A questionnaire quantifies the ANP model by collecting data from respondents for pairwise comparisons between elements in the hierarchy. Respondents will be asked to provide pairwise comparison values that describe their level of difference or preference for the features being compared.

D. RESULTS AND DISCUSSIONS

The Super Decisions software in this study allows for the creation of results or a summary of each respondent's ANP (Analytic Network Process) network for decision-making. The data is then exported to an Excel sheet for processing to achieve the desired results. Furthermore, validation is carried out for each method to ensure the accuracy and correctness of the results. Thus, detailed and general information can be obtained from this research and become the basis for providing policy recommendations.

At this stage, each respondent's analytical results were known, and the opinions and group results generated from the survey were also taken into consideration. Questions comparing respondents' responses were then combined to reach a consensus. Geometric mean is used as a type of average calculation to show patterns or values that will be used in the quantification analysis of this model (Mustafida, 2015b). The results of data processing using Super Decisions software with the ANP method show the priority of tourism development through tourism innovation and policy.

Figure 3 results indicate that human resources hold the highest priority for tourism development, with a weight of 0.57143. This shows the importance of having qualified and trained human resources in the tourism industry. Furthermore, the second priority is institutional/bureaucracy, weighing 0.28571. This underscores the necessity for institutional

enhancement and the removal of bureaucratic barriers in the tourism development process. The lowest priority is accessibility, with a weight of 0.14286. Although accessibility is important in tourism, the analysis shows that other factors, such as human resources and institutions, have a higher priority. Increased tourism development must focus on human resource development and institutional/bureaucratic improvements. Training and education can enhance the quality of human resources in the tourism industry.

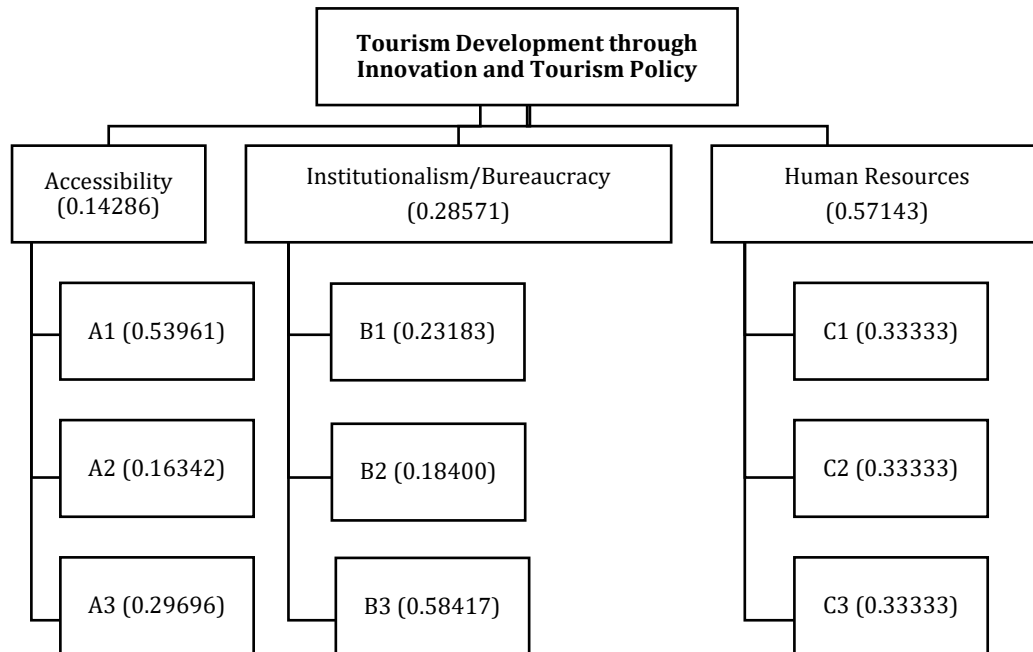


Figure 3 ANP Super Decisions Method Data Processing Results

Furthermore, the implementation of bureaucratic reforms and enhancing the licensing process will boost the efficiency of tourism development. Note that we conducted data analysis using Super Decisions software and the ANP method to arrive at these results. These results can serve as a preliminary guide for tourism development decision-making. In consideration of these priorities, tourism development can focus on human resource development, digital-based tourism development, quality services, and support from organizations, local governments, groups, or destination managers. In addition, it is essential to pay attention to accessibility, institutional/bureaucratic, and other criteria to achieve the best results for tourism development.

The following are strategies that can be taken to increase the priority level of each of the criteria listed in Figure 3:

- (1) A1 (0,53961): Access Between Attractions (Tourism Promotion Media: Social Media, Billboards)
 - They are optimizing the use of social media as a means of tourism promotion by producing exciting and informative content.
 - It is installing billboards in strategic locations that can attract the attention of potential tourists.
 - We are organizing tourism promotion campaigns through social media to reach a wider audience.

- (2) A2 (0,16342): The availability of transportation and communication facilities
 - Improve accessibility to tourist attractions by improving transportation networks and public transportation services.
 - Provide complete and accurate information about available transportation facilities through brochures, websites, or mobile applications.
 - Strengthen communication infrastructure around tourist attractions to facilitate communication between visitors and related parties.
- (3) A3 (0,29696): Road conditions for tourist attractions
 - Improve and maintain the condition of roads leading to tourist attractions to make them safe, comfortable, and easily accessible to tourists.
 - Conduct regular monitoring and repair of road conditions, including the addition of street lighting in areas of need.
- (4) B1 (0,23183): Effectiveness of Tourism Policy in the Regional Development Work Plan (RKPD)
 - Improve synergy between tourism policies and regional development plans to ensure that tourism development becomes integral to the development agenda.
 - Conduct regular evaluations of the effectiveness of tourism policies that have been implemented and make changes or adjustments if necessary.
- (5) B2 (0,18400): License Model/Ease of Licensing
 - Simplify and accelerate tourism-related licensing processes by adopting an efficient and transparent model.
 - Improve communication and coordination between relevant agencies in the licensing process to reduce bureaucratic obstacles.
- (6) B3 (0,58417): Digital Base Tourism Development (Social Media, Public Service Advertisement)
 - Develop effective digital marketing strategies through social media, online advertising, and public service campaigns.
 - Encourage the involvement of social media users and influencers in promoting tourism digitally.
- (7) C1 (0,33333): Support by organizations, local governments, groups, or tourism destination managers to organize tourism activities
 - Build strong cooperation and partnerships between organizations, local governments, groups, and tourist destination managers to support implementing tourism activities.
 - Provide incentives or financial support for tourist destination managers who have the initiative to organize tourism activities.
- (8) C2 (0,33333): Services for good management and regulation in the tourism sector
 - Improve the quality of services in tourism management and regulation, including tourist attractions, tourist information, and environmental protection.
 - Conduct training and development of human resources related to tourism services to provide a satisfying experience for visitors.
- (9) C3 (0,33333): Developments related to improving expertise through training
 - Identify Training Needs: Assess the skills required in the tourism industry in the region. Identify gaps and needs regarding knowledge, skills, and attitudes required to face challenges in the tourism industry.
 - Design a Training Program: Design a comprehensive training program based on the identified needs. Ensure the training program covers various important aspects, such as

tourism destination management, marketing, customer service, environmental sustainability, and communication skills.

- Cooperation with Institutions and Related Parties: Form partnerships with educational institutions, training, or related organizations to provide practical training. Collaboration with such institutions can provide access to experts and facilities needed to implement training programs.

The order of strategies that can be taken from the effects of data processing using the ANP method pertaining to tourism development priorities through innovation and tourism policy is determined by the results of data processing using the ANP method related to tourism development priorities through innovation and tourism policy. Strategy A3: Road Conditions for Tourist Objects, Strategy B3: Digital Base Tourism Development (Social Media, Public Service Advertisement), Strategy C3: Increasing Expertise Through Training, Strategy C2: Services in Management and Good Regulation in the Tourism Sector, Strategy B1: Effectiveness of Tourism Policies Against the RKPD Regional Development Work Plan, Strategy C1: Support by organizations, local governments, groups, or tourism destination managers to organize tourism activities, Strategy A2: Availability of transportation and communication facilities, Strategy A1: Access Between Attractions (Tourism Promotion Media: Social Media, Billboards), Strategy B2: Licensing Model/Ease of Licensing These strategies aim to overcome obstacles and improve performance at each level of predetermined criteria. By implementing these strategies, tourism development can be carried out more effectively and increase the attractiveness of tourism destinations.

The focus on human resources is consistent with the tenets of endogenous growth theory, which emphasizes the pivotal role of human capital in propelling economic growth. Diallo (2017) corroborates the significance of cultivating human capital through training and education, emphasizing the pivotal role of human resources in economic growth. This finding corroborates the existing literature that underscores the necessity for unceasing improvement and investment in human resources to ensure the sustainability of tourism development (Abdillah, 2021). It is evident that institutional and bureaucratic factors play a pivotal role in the formulation of effective tourism policies. Aghion et al. (1998), who emphasize the role of institutions in fostering innovation and economic growth, align with the study's conclusion that institutional enhancements represent a significant priority. Utomo and Widodo (2017) corroborates this result by positing that bureaucratic efficiency and effective policy implementation are essential for fostering innovation in tourism. Despite receiving the lowest priority in the ANP analysis, accessibility remains an indispensable component of tourism development. The enhancement of transportation and communication infrastructure can markedly improve tourist experiences and facilitate the growth of the tourism sector. This finding is consistent with the work of Theobald (2005), who identifies accessibility as a fundamental aspect of tourism policy. Nevertheless, the relatively lower weight assigned to accessibility in this study indicates that other factors, such as human resources and institutional efficiency, may have a more immediate impact on tourism innovation in Pamekasan Regency.

The theoretical foundation of the endogenous growth theory can be linked to the strategies taken to enhance tourism development in the context of the priorities mentioned earlier. Endogenous Growth Theory emphasizes the importance of internal factors in driving long-term economic growth. These factors can be applied in the context of tourism development as follows:

- (1) Innovation and Technology (A1, B3): Endogenous Growth Theory emphasizes the importance of innovation and technological development in driving economic growth. In

- tourism development, strategies that include social media, billboards, and digital bases are efforts to apply innovation and technology in tourism promotion and marketing.
- (2) Human Resources (C1, C2): Endogenous growth theory considers human resources essential to economic growth. In tourism development, strategies involving training and developing human resources and improving services in tourism management aim to strengthen the capability and quality of human resources involved in the tourism industry.
 - (3) Government Policy (B1, B2): Endogenous growth theory highlights the critical role of government policies in creating an environment conducive to economic growth. In the context of tourism development, strategies that include the effectiveness of tourism policies, simplification of licensing, and support from local governments are efforts to create policies that support the growth of the tourism sector.
 - (4) Infrastructure Availability (A2, A3): Adequate infrastructure drives economic growth. In tourism development, strategies that include improving transportation and communication facilities and road conditions to tourist attractions aim to improve accessibility and comfort for tourists.

By implementing these strategies based on endogenous growth theory, tourism development is expected to positively contribute to long-term economic growth through increased innovation, utilization of qualified human resources, supportive policies, and adequate infrastructure.

The results of data processing that have been submitted related to tourism development priorities through innovation and tourism policy can be linked to the theoretical basis of public policy. Accessibility (0.14286): Public policy theoretically emphasizes the importance of creating equitable accessibility for the community. This can be the focus of public policy in the context of tourism. Public policy principles can enhance accessibility by either improving road conditions to tourist attractions or increasing the availability of transportation facilities. Institutional/bureaucracy (0.28571): Public policy strategies emphasize the importance of bureaucratic effectiveness and efficiency in decision-making and policy implementation. To reduce bureaucratic obstacles in the tourism industry, we can direct the strategy of increasing the effectiveness of tourism policies against the Regional Development Work Plan (RKPD), improving the licensing model, and making licensing easier. Human Resources (0.57143): The theoretical framework of public policy pays attention to the role of human resources in policy implementation. In this scenario, the government can facilitate the growth of tourism by enhancing the expertise and training of human resources within the tourism industry, as outlined in level C3, thereby stimulating the sector's growth and development. Public policy in the theoretical foundation highlights the importance of the government in designing and implementing effective procedures to influence the development of the tourism sector. Regarding tourism development, public policies based on the theoretical foundation can help create a conducive environment, improve infrastructure conditions, ease accessibility, increase bureaucratic effectiveness, and develop competent human resources to support growth and innovation in the tourism sector.

The outcomes of this study are in accordance with the theoretical framework of endogenous growth theory and previous studies on innovation in tourism policy. By highlighting the significance of human resources and institutional enhancements, the research reinforces the idea that internal factors, such as innovation, human capital, and effective institutions, play a crucial role in driving economic growth. Research further supports this assertion by highlighting the importance of human capital and institutional quality in advancing sustainable tourism development (Schilirò, 2019; Sorg-Langhans et al., 2018). Additionally, the prioritization of accessibility underscores the necessity for a well-rounded investment approach that includes

infrastructure development alongside human and institutional capacity building. This integrated strategy takes into account all essential aspects of tourism policy, thereby enabling comprehensive and sustainable growth within the tourism industry. To summarize, this study offers valuable insights into the key areas of focus for tourism development in Pamekasan Regency, underscoring the critical roles of human resources, institutional effectiveness, and accessibility. By linking these conclusions to the theoretical underpinning of endogenous growth theory and substantiating them with existing literature, the research provides strong support for the recommended strategies. Implementation of these suggestions has the potential to significantly improve the efficacy of tourism policies, thereby fostering sustainable development and economic growth in the area.

Tabel 2 Kendall's Coefficient of Concordance (W)

CLUSTER	Kendall's Coefficient of Concordance (W)	
	W	P-value
Criteria	0,1242	0,3270
Accessibility Sub-Criteria	0,1242	0,3270
Institutional/Bureaucratic Sub-Criteria	0,1373	0,2907
Human Resources Sub-Criteria	0	1

Rater agreement aims to measure the extent to which respondents agree or have compatibility in assessing the elements under study. Based on the fact that Kendall's Coefficient of Concordance (W) is not significant at any of the significance levels, we can say that raters do not agree on how to rate the object or variable being studied. In a situation like this, the appraisers may have perspectives, or many things, such as differences in views, knowledge, or preferences of the appraisers, could cause it. The results contained in Table 2 show that rater agreement is necessary for research or situations where it is important. This could involve training raters, developing more specific scoring guidelines, or identifying factors that lead to disagreement and devising strategies to mitigate them. The fact that Kendall's Coefficient of Concordance (W) was not significant suggests that the level of agreement between raters needs to be raised in order to make the assessment results more consistent and reliable.

E. CONCLUSION

This research successfully built an ANP structure model, which involved forming a hierarchy and identifying relevant elements to overcome barriers to innovation and public policy in the tourism sector of Pamekasan Regency. The model highlights three critical criteria affecting innovation and the role of tourism public policy in Pamekasan Regency, namely accessibility, institutional/bureaucracy, and human resources. This research uses the Analytical Network Process (ANP) approach to overcome barriers to tourism development through innovation and public policy in Pamekasan Regency. Based on the ANP analysis, the highest priority in tourism development is human resources, followed by institutional/bureaucracy and accessibility. These results indicate the importance of having qualified human resources, institutional improvements, and increased accessibility in the tourism industry.

These priorities guide the implementation of strategies such as improving road conditions for tourist attractions, fostering digital-based tourism through social media and advertising, enhancing expertise through training, providing quality tourism management services, ensuring the effectiveness of tourism policies, securing support from organizations and local governments, offering transportation and

communication facilities, facilitating access between tourist attractions, and simplifying licensing procedures. Implementing these strategies is expected to make tourism development run effectively and increase the attractiveness of tourism destinations.

This research also relates these strategies to the theoretical foundation of endogenous growth theory. This theory emphasizes the importance of internal factors such as innovation, human resources, government policies, and infrastructure in long-term economic growth. The strategies taken to enhance tourism development through innovation and public policy are based on the principles of endogenous growth theory. This research provides insights and strategic recommendations to overcome the constraints in tourism development in Pamekasan Regency. The results of this research complement the implementation of the ANP method to assess public policy innovation and tourism issues. Relevant parties can use the strategic guidelines produced by the study to enhance tourism in Pamekasan Regency. We expect the implementation of these strategies to overcome the challenges of encouraging innovation and public policy in tourism in Pamekasan Regency, thereby achieving optimal tourism development.

This study, which focused on tourism development in Pamekasan Regency, revealed critical insights into the prioritization of human resources, institutional efficiency, and accessibility as key drivers for tourism innovation. The small sample size and regional focus of the research, despite its methodological soundness and use of the Analytic Network Process (ANP), may limit the generalizability of its findings. It would be beneficial for future studies to expand the geographical scope, include a diverse range of respondents, and consider the potential impact of emerging technologies in order to enhance the robustness and applicability of tourism policies. Addressing these limitations will facilitate a more comprehensive understanding of sustainable tourism development and policy implementation.

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Appendix 1 Respondent Questionnaire Results

The objective of the respondent questionnaire was to gather insights from experts, managers, and public decision-makers in the tourism sector of Pamekasan Regency. The survey instrument consisted of structured questions focusing on key criteria affecting tourism development. The following criteria were identified as key factors affecting tourism development: accessibility, institutional/bureaucratic processes, and human resources. The participants were asked to provide pairwise comparisons in order to prioritize the aforementioned criteria and their constituent sub-components. These included transportation and communication facilities, licensing models, and the quality of human resources. The data obtained from the questionnaire were subjected to analysis using the Analytic Network Process (ANP) method, with the assistance of the Super Decisions software. The results indicated that human resources, institutional improvements, and accessibility are significant factors that influence the advancement of tourism innovation. The comprehensive responses and prioritization weights derived from the survey serve as the foundation for strategic recommendations aimed at optimizing tourism policy and development in Pamekasan Regency.

Cluster	R1	R2	R3	R4	R5	R6	R7	R8	R9	Geomean	ANP Value
A - B	8	4	7	6	5	1	0,2	0,2	6	2,27	2
A - C	9	7	8	5	5	9	0,2	5	5	4,36	4
B - C	0,14	7	5	6	0,2	7	6	0,2	6	1,89	2
A1 - A2	0,14	6	8	9	7	5	5	0,2	7	2,91	3
A1 - A3	8	7	0,14	0,13	6	0,2	5	5	6	1,78	2
A2 - A3	0,14	7	0,13	7	5	5	6	5	0,17	1,68	2
B1 - B2	8	7	0,17	0,2	0,2	5	5	0,2	6	1,31	1
B1 - B3	0,14	8	7	5	5	5	5	5	0,14	2,48	2
B2 - B3	8	7	6	0,2	5	5	5	5	6	3,98	4
C1 - C2	0,14	7	6	6	0,25	0,14	0,17	5	6	1,23	1
C1 - C3	0,11	7	8	0,2	0,14	7	0,17	5	6	1,23	1
C2 - C3	9	8	0,14	5	0,2	5	0,2	5	0,143	1,25	1