

**Aplikasi Logika Fuzzy untuk Mengidentifikasi Minat Berkunjung
Wisatawan Terkait Pengembangan Pengelolaan Ekowisata Di Tlogo Muncar
Dan Tlogo Nirmolo, Taman Nasional Gunung Merapi**

Lilis Setyawati¹

Djoko Soeprijadi, S.Hut., M.Cs.²

Bowo Dwi Siswoko, S.Hut., M.A²

Abstrak

Pengembangan pengelolaan wisata di kawasan konservasi seharusnya mengacu konsep ekowisata dan memperhatikan minat kunjungan wisatawan. Penelitian ini bertujuan untuk mengidentifikasi proses kunjungan wisatawan, mengetahui pola implikasi keputusan wisatawan untuk berkunjung, dan membuat rancangan pengembangan pengelolaan ekowisata berdasarkan pola implikasi keputusan berkunjung wisatawan.

Penelitian dilakukan di Objek Wisata Alam Tlogo Muncar dan Tlogo Nirmolo, Taman Nasional Gunung Merapi dengan menggunakan pendekatan kuantitatif. Pengambilan sampel dilakukan secara insidental terhadap 100 orang pengunjung selama bulan Januari-Februari 2019. Data skoring empat aspek psikologi pengunjung yaitu: 1) sikap, 2) norma subjektif, 3) control perilaku, 4) minat, dimodelkan melalui inferensi *fuzzy* tsukamoto untuk memprediksi minat berkunjung mengacu pada teori perilaku terencana dan validasi model menggunakan pendekatan *Normalized Root Mean Square Error*(NRMSE).

Hasil penelitian menunjukkan jika proses kunjungan wisatawan merupakan suatu perilaku terencana. Pola implikasi keputusan wisatawan untuk berkunjung adalah berbanding lurus antara sikap, norma subyektif, dan kontrol perilaku pengunjung terhadap minat berkunjung ke Tlogo Muncar dan Tlogo Nirmolo. Usulan rancangan pengembangan pengelolaan ekowisata meliputi: penyusunan tema paket wisata, pembuatan jalur interpretasi, peningkatan fasilitas pendukung ekowisata, penambahan layanan jasa interpreter, pembatasan jumlah pengunjung, dan publikasi ekowisata di kawasan konservasi.

Kata kunci: Ekowisata, kawasan konservasi, inferensi *fuzzy* tsukamoto, teori perilaku terencana

¹Mahasiswa Fakultas Kehutanan Universitas Gadjah Mada

²Dosen Fakultas Kehutanan Universitas Gadjah Mada

The Application of *Fuzzy* Logic for Identifying Visiting Interest Related to Ecotourism Development of Tlogo Muncar and Tlogo Nirmolo, Mount Merapi National Park

Lilis Setyawati¹

Djoko Soeprijadi, S.Hut., M.Cs.²

Bowo Dwi Siswoko, S.Hut., M.A.²

Abstract

Management in conservation areas should refers to the concept of ecotourism and pay attention to the interest of tourist visits. This study aims to identify the process of tourist visits, knowing the pattern of tourist implication concerning visit decision, and designing the development of ecotourism management based their implication patterns.

The research was conducted at Tlogo Muncar and Tlogo Nirmolo, Mount Merapi National Park using a quantitative approach with survey method. Sampling was done accidentally on 100 visitors during January-February 2019. Scoring data on four aspects of visitor psychology: 1) attitudes, 2) subjective norms, 3) behavioral controls, 4) interests, were modeled through the inference of *fuzzy tsukamoto* that predict visiting interest according to the theory of planned behavior and model validation using the Normalized Root Mean Square Error (NRMSE) approach.

The results of the study indicate that the process of tourists visits is a planned behavior. The pattern of the implication for tourists decisions to visit is directly proportional between attitudes, subjective norms, and behavioral controls towards tourists interest in visiting Tlogo Muncar and Tlogo Nirmolo. The design proposed for developing ecotourism management includes: the formulation of the tour packages' themes, the creation of interpretive routes, improvement of supporting facilities for ecotourism, the addition of interpreter services, limitation on the number of visitors, and publication of ecotourism in conservation areas.

Keywords: Ecotourism, conservation area, Tsukamoto *fuzzy* inference, theory of planned behavior.

¹Student of the Faculty of Forestry Universitas Gadjah Mada

²Lecturer of the Faculty of Forestry Universitas Gadjah Mada