

## BUSINESS DEVELOPMENT OF THE ECOTOURISM OF JAVAN GIBBON: A MARKETING MIX STRATEGY AT GEDE PANGRANGO NATIONAL PARK

Fandawa Saputra<sup>\*)</sup>, Tutut Sunarminto<sup>\*)</sup>, Harnios Arief<sup>\*)</sup>, Khairiyah Kamilah<sup>\*\*)1</sup>

<sup>\*)</sup> IPB University

Jl. Dramaga, Kampus IPB Darmaga, Bogor 16680, Indonesia

<sup>\*\*)</sup> School of Business, IPB University

Jl. Raya Pajajaran, Bogor 16151, Indonesia

### Article history:

Received

26 August 2024

Revised

3 October 2024

Accepted

22 October 2024

Available online

22 January 2025

This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>)



### Abstract:

**Background:** Javan gibbons are a protected species facing conservation challenges in Bodogol Resort, Gunung Gede Pangrango National Park. Ecotourism has been shown to benefit both conservation and local economies in other regions.

**Purpose:** This study aimed to assess visitor perceptions of Javan gibbon ecotourism development using a 4Ps marketing mix approach to identify areas for improvement and inform future conservation and tourism initiatives. The areas for improvement include product attributes such as offered package for tourists, chosen tourist provider, the offered price by seeing the willingness to pay, spots to enjoy the tourism, and effective promotion channels.

**Methods:** Descriptive analysis and statistic descriptive analysis were employed to examine visitor perceptions. Data were collected through surveys administered to visitors to Bodogol Resort.

**Results:** Findings indicate that tourists have a positive perception of Javan gibbon ecotourism, proven by the score given by local tourist and foreign tourists are 5.7 and 5.9 in a row. These scores show the degree of agreement (out of 7) about Javan gibbon ecotourism that brings positive impacts for the environment, social, and the Javan gibbon itself. However, there is a need to enhance the 4Ps marketing mix, including pricing, product offerings, promotion, and place. Specifically, prices should be adjusted based on visitor willingness to pay is IDR500,000 to IDR1,000,000 which have not been analyzed before. Social media promotion should be done with the involvement of influencers and community.

**Conclusion:** This study provides valuable insights into the potential of Javan gibbon ecotourism to contribute to both conservation and local development. By implementing recommended strategies with 4P's marketing mix approach, Bodogol Resort can further enhance visitor experiences such as formed package to offer to the tourist from various potential activity found from this research. The offered package adjusted to the willingness to pay of local and foreign tourist that ranged from IDR500,000 to IDR1,000,000. Respondents also agree that this ecotourism activity also support the long-term survival of this endangered species.

**Originality:** There's no business development for javan gibbon ecotourism before at Gunung Gede Pangrango National Park. This research also uses VALS Survey analysis to form the promotion strategy.

**Keywords:** business development, ecotourism, javan gibbon, marketing mix, tourists

### How to Cite:

Saputra F., Sunarminto T., Arief H., & Kamilah K. (2025). Business Development of The Ecotourism of Javan Gibbon: A Marketing Mix Strategy at Gede Pangrango National Park. Jurnal Aplikasi Bisnis Dan Manajemen (JABM), 11(1), 228. <https://doi.org/10.17358/jabm.11.1.228>

<sup>1</sup> Corresponding author:

Email: [khairiyah-kamilah@apps.ipb.ac.id](mailto:khairiyah-kamilah@apps.ipb.ac.id)



## INTRODUCTION

Javan gibbon (*Hylobates moloch* Audebert, 1798) is the only small ape (lesser apes) that has a distribution in Java, especially in the west part of java (Kappeler 1987 in Conservation International, 2011). One of the areas of Javan gibbon distribution is in the Gunung Gede Pangrango National Park (TNGGP) and the resort that has the highest Javan gibbon population among all resorts is the Bodogol Resort. According to the head of the West Java Conservation Center for Natural Resources (BBKSDA) (2017), the survival of Javan gibbons in natural habitats is increasingly threatened. Currently, the Javan gibbon has a status as a protected animal according to the Ministry of Environment Regulation number P.92MENLHK/SETJEN/KUM.1/8/2018, and according to IUCN (The International Union for Conservation Nature), Javan gibbon also has Endangered status. This indicates that Javan Gibbons urgently require conservation efforts to ensure their species' sustainability. One of the conservation efforts that can be undertaken is organizing Javan Gibbon ecotourism activities. Eco-Wildlife Tourism in several other countries has shown its contribution to wildlife conservation efforts, such as zaire gorilla tourism which provides more oversight for areas inhabited by these endangered animals, and has been proven to help reduce the hunting of mountain gorillas. Australian conservation agencies also mention that as an incentive of wildlife tourism, at least 15 conservation efforts for wildlife itself have been created (Higginbottom 2004).

Based on the empirical study above, the development of Javan gibbon ecotourism at Bodogol Resort is very possible to be carried out because Javan gibbon has an attraction from its unique characteristics and its daily activities. Ario (2017) mentions that Javan gibbons have different characteristics from some other apes, such as having a family and living in harmony with other groups. In addition, people get more interested in wildlife tourism, because it is one of the efforts to conserve these animals. According to Arbieua (2017), there is a high tourist demand for large mammal species seeing tourism. The World Bank (2018) also mentioned that wildlife tourism has developed rapidly in the last decade, because of increasing demand for it.

The development of the Javan gibbon ecotourism in the Bodogol Resort is expected to be beneficial for the conservation of these animals and provide economic

value for TNGGP. However, the development of Javan gibbon ecotourism is also expected to not violate the nature of TNGGP as a conservation area. Therefore, research is needed on the business development of Javan gibbon ecotourism.

The purpose of this study is to identify and analyse visitors' perceptions of Javan gibbon ecotourism through the 4P's marketing mix approach, focusing on product development, pricing strategies, distribution channels, and promotion strategies. By exploring how modifications in each of these areas can potentially enhance both visitor experiences and conservation efforts, the study aims to provide actionable insights for the sustainable development of Javan gibbon ecotourism.

This structured approach will help bridge the gap between marketing strategies and conservation objectives, ultimately guiding efforts to create a more impactful and successful ecotourism experience.

## METHODS

This research was conducted at Bodogol Resort, Taman Nasional Gunung Gede Pangrango, West Java. The study was conducted in June 2020 to December 2022. The data used are primary data and supporting data. The research tools used were questionnaires and tally sheets. The questionnaire was used to determine the characteristics and perceptions of visitors towards the business development of Javan gibbon ecotourism using 4 marketing mix approach, and the tally sheet was used to record the behavior of Javan gibbons. All of the questions in questionnaire has been validated by validity and reliability test conducted using SPSS with scores 0.68 (KMO measurement) and 0.81 (Cronbach's Alpha Score).

The object of the study was Javan gibbons at the Bodogol Resort, TNGGP. Data collection methods in the form of questionnaires using Likert Scale to see perceptions of potential customers of Javan gibbon ecotourism activity. The potential customers are chosen directly on the spot at TNGGP (accidental sampling). The accidental sampling was used because by sampling tourists who are already in the ecotourism area, the study captures real-time perceptions in a natural setting. This immediacy helps ensure that the feedback reflects their genuine reactions to the product,



pricing, distribution, and promotion of the Javan gibbon ecotourism experience. Table 1 summarizes the data collected and the methods utilized during the study.

The first data collection is literature study. Literature study was used to do a desktop study relating to theories related to ecotourism business development, existing condition of Resort Bodogol, TNGGP; and the habitat of Javan gibbon. These data are obtained from books, journals, magazines, and other relevant sources (Nazir, 1988). The next data obtained from observation. According to Supardi (2006), observation is a method of

data collection carried out by systematically observing and recording the symptoms being investigated. Observations carried out to obtain data on the potential tourist attractions of Javan gibbons, natural resource potential, accessibility, facilities and infrastructure and other supporting facilities are carried out by direct observation in the field.

Observations are also intended for collecting Javan gibbons data which include behavioral data, home range and habitat conditions of Javan gibbons. The following are details of Javan gibbons observations.

Table 1. Types of data, data collection, and data analysis

Research purposes	Data collected	Data retrieval	Data analysis
Identification of behavior, home range and habitat of Javan gibbons as a tourist attraction	Habitat: Feeding Sleeping tree  Home range: Daily roaming  Javan gibbon behavior: Eating Resting Social Moving	Observation: Focal animal sampling Checkered Lines	Descriptive Analysis Vegetation Analysis
Identifying natural resource potential at Bodogol Resort, TNGGP	Natural features: Waterfall Campground	Observation	Descriptive Analysis
Analyzing visitor demand in developing Javan gibbon ecotourism at Bodogol Resort, TNGGP	Characteristics: Demographic and psychographic Respondents: Purposive sampling (the visitors of TNGGP) Customers' perception which includes form, time, features, packaging, brand, product package, and price of Javan gibbon ecotourism	Questionnaire with 7-Likert Scale and open-questionnaire	Quantitative using Descriptive Statistic and Descriptive Analysis
Arrange the development of Javan gibbon ecotourism at Bodogol Resort, TNGGP	Characteristics of visitors using VALS and visitor perceptions using the attributes of marketing mix perspective	Questionnaire	VALS Analysis Descriptive analysis



## 1. Daily behavior of Javan gibbons

Observations of daily behavior of Javan gibbons were carried out using the focal animal sampling method (Figure 3), this method is a way of observing behavior by observing only one individual Javan gibbon in a certain time interval. This technique is used to find out all types of behavior carried out by the observed individual (Altman, 1974). Observations were carried out from 05.00 - 17.00 for 28 days in intervals of 5 minutes with a record of 1 individual / 7 days.

- According to Anis and Iskandar (2011), Javan gibbons start their activities at 06.00 and end at 15.00. The daily behavior of Javan gibbons that have been identified are:
- Eating activity is the activity of taking food, putting it in the mouth and then chewing it.
- Moving activity is the activity of walking, jumping and swinging using both lower legs or hands.
- Resting is a phase where an individual does not do any activity.
- Social activity is an activity involving two or more individuals that results in interaction, such as tickling, playing, making sounds, agonistic, and mating.

## 2. Home range

Estimating the home range of Javan gibbons is done by following the movement of the group by recording the location points (Figure 1), which is done while observing the behavior of Javan gibbons. Following these, Javan gibbons starts from the tree where they sleep to the tree where they sleep the next night. Home range observations are carried out for 28 days (Dewi, 2007).

## 3. Javan gibbon habitat (food and nest trees of Javan gibbons)

The technique for analyzing vegetation at the Bodogol Resort used a sampling method with a grid line method (Soerianegara and Indrawan, 2005) and was carried out in the Bodogol Resort area which has an area of 2,209,417 Ha. The sampling intensity used was 0.045% so that the total sampling area was 1 Ha with a total number of 25 plots. The aim was to determine the use of habitat used by the Javan gibbon group in the forest area. So that the pattern of habitat use by the Javan gibbon group in carrying out daily activities in the Rasamala forest can be determined.

The next data collection is a closed-ended questionnaires. The technique of determining respondents using the accidental sampling method. According to Sugiyono (2009), accidental sampling is a sampling technique based on coincidence, i.e. respondents who accidentally met with the researcher can be used as a sample. Furthermore, the respondents in this study consisted of 60 tourists that were visiting TNGGP; consisting of 30 domestic tourist respondents and 30 foreign tourists.

The aspects examined from the tourist questionnaire are aspects of characteristics, and perceptions. The various aspects asked to the respondents are expected to be able to represent general views to the design of Javan gibbon ecotourism development. For taking perception of potential customers' data, the theory of marketing mix especially for elements of product and price are used. The operational definition of all variables is stated in the Table 2.

Table 2. Operational definition of variables

Aspect	Information	Data Required
Characteristics	The data taken is demographic and psychographic visitors (VALS by Strategic Business Insights, 2009) to determine the promotion strategy.	age, sex, occupation, last education, income, marital status, hobbies
Perception	The data taken is the attributes of price and product mix from Marketing Mix 4P (Kotler and Keller, 2011).	Perception: Javan gibbon ecotourism, facilities and accessibility, packaging, time, brand, features, product package, and price



## Data analysis

### 1. Daily Behavior Analysis of Javan Gibbons

The observation data were analyzed descriptively. The data obtained were tabulated based on activity parameters, strata use, climate and weather. From the amount and distribution of data for each activity carried out, the percentage/frequency was calculated and then depicted in a graph. Calculations such as those above or often referred to as tabulation data analysis.

### 2. Vegetation Analysis of Javan Gibbon Habitat

Vegetation analysis was conducted to determine the composition and dominance of a type of vegetation in a community. The Important Value Index (INP) describes the ecological position of a type in a community, in other words, INP is used to determine the dominance of a type over other types. INP is calculated based on the sum of the Relative Density (KR), Relative Frequency (FR), and Relative Dominance (DR) values based on Soerianegara and Indrawan (2005). In addition, vegetation analysis is also used to describe the food and nest trees of Javan gibbons found in the Bodogol Resort.

### 3. Descriptive Analysis of Availability and Condition of Infrastructure and Facilities, and Potential of Natural Landscapes

The analysis used on the availability and condition of accessibility and infrastructure, as well as the availability of potential for natural landscape tourism is descriptive analysis. This analysis is expected to describe the real conditions of the form, number, and condition of infrastructure and accessibility at the Bodogol Resort. In addition, this analysis is also used on the potential of natural landscapes such as waterfalls and campsites that describe their availability and conditions. The results of this analysis are expected to support the development of Javan gibbon ecotourism.

### 4. Qualitative Descriptive Analysis of Characteristics, Perceptions, and Visitor Preferences

Qualitative descriptive analysis is used to analyze data from visitor questionnaires. Data from this questionnaire were previously processed by summarizing and calculating using MS Excel. The questionnaire using several options or answer choices is summarized and

then tabulated, while the questionnaire using the Likert scale is analyzed based on the results of the values produced, the following is an explanation of the values produced, namely:

1–1.9 = strongly disagree	4–4.9 = moderate
2–2.9 = disagree	5–5.9 = somewhat agree
3–3.9 = somewhat disagree	6–7 = agree

This analysis is intended to describe the demand conditions for the development of Javan gibbon ecotourism. After that, it will be used to design a tourism product consisting of form, packaging, features, brand, time, product package.

### 5. Javan Gibbon Ecotourism Business Development Design

The design of the development of Javan gibbon ecotourism is compiled from a combined analysis of behavioral data, home range, Javan gibbon habitat, other natural resource potential, and visitor demand data. The design that will be made is in the form of ecotourism products that are compiled with descriptive analysis.

## RESULTS

### Javan Gibbon

The Javan gibbon (*Hylobates moloch*) is the only species of lesser ape found on the island of Java. The distribution of this primate is limited to relatively undisturbed tropical forests in the forests of West Java and several forests in Central Java (Kappeler 1987 in Ario et al. 2011). Javan gibbons live in groups with their partners and offspring.

The group of Javan gibbons studied consisted of 6 individuals, the group had a composition of 1 adult male, 1 adult female, 2 adolescents, 1 child, and 1 infant. This group of Javan gibbons is included in the large group because usually a group of Javan gibbons consists of 4 individuals. As monogamous primates, Javan gibbon groups are generally 3-4 individuals/group (Rowe, 1996) and each group consists of 1 adult male, 1 adult female, and 1-2 children who are not yet independent (Supriatna and Wahyono, 2000). This is because the groups of Javan gibbons in TNGGP that currently exist are generally large, where young Javan gibbons that enter adolescence have not yet left



their groups. This is because young Javan gibbons are generally often with their mothers and do not yet have their own roaming areas (Kappeler 1984 in Ario et al. 2011).

The large percentage of groups that have offspring indicates that the TNGGP area supports the growth of the Javan gibbon population.

Daily activities are directed activities that are individual responses to environmental conditions and resources (Sjahfirdi et al. 2009). Based on Figure 1, Javan gibbons have active hours from 05.30 to 16.40 WIB. Javan gibbons begin their activities by making sounds and moving slowly in the same tree at 05.30 - 07.00 WIB. Javan gibbons make morning calls between 06.00 and 7.00 AM (Ilham et al. 2019).

Morning calls are only sung by adult females (Ario et al. 2018). However, Javan gibbons do not make morning calls every day, this is the same as other gibbons, such as the lar gibbon does not sing every day (Vu et al. 2016). The sound of Javan gibbons can be heard at a distance of 1,500 m, like the black-crested gibbon up to a maximum hearing distance of 1,500 m (Jiang et al. 2006; Phan and Gray, 2009). Morning calls function for territorial defense, like other gibbons. Females play an important role in territorial defense with vocal activities (great calls) carried out every morning. Vocalizing is one of the notification signs, stating their presence to neighboring groups. This is an indication of confrontation within the boundaries of togetherness, sometimes to show an aggressive nature (Napier and Napier, 1985). Terleph (2015) stated that the great call of the female lar gibbon has the main function of mediating territorial defense. Then when the sleeping tree area is filled with sufficient sunlight, the Javan gibbon begins to move to look for food around 06.00 AM.

At that time the Javan gibbon becomes more active by continuing to move from tree to tree while looking for food until 10.00 AM. Gurmaya et.al. (1992), the Javan gibbon is active in the morning, namely at 05.30 - 06.50 AM WIB and reaches its peak around 09.00 - 10.00 AM WIB. The peak resting time for Javan gibbons in nature for the start of social relations between partners is at 12.00 - 01.00 PM (Ario, 2010). After that, the adult Javan gibbon stops on a tree and lets the other members play and rest around the tree until around 12.00 WIB (Figure 1).

After 12.00 PM WIB, the Javan gibbon rests and does a little social activity until around 02.00 PM WIB. Then after 02.00 PM WIB, the Javan gibbon moves and looks for food again until 04.30 PM WIB, then the Javan gibbon looks for a sleeping tree until 05.00 PM WIB. According to Gurmaya et al. (1992), it is active again in the afternoon at 16.00 – 17.00 WIB before finally reaching the sleeping tree. Javan gibbons generally move in the morning at 06.05 - 06.25 AM and stop at 04.45 - 05.15 PM (Kartono et al. 2002).

Eating and moving activities in the morning and evening dominate the daily routines of Javan Gibbons prior to settling in their sleeping trees Looking at the characteristics of these foreign tourists, it would be very effective if the promotion carried out was viral marketing and are very low during the day. In contrast, social and resting activities in the morning and evening are lower than during the day. In general, the percentage of Javan gibbon activity in the morning is not much different from that in the afternoon. The daily activities of Javan gibbons also have variations in percentage for each activity (Figure 2).

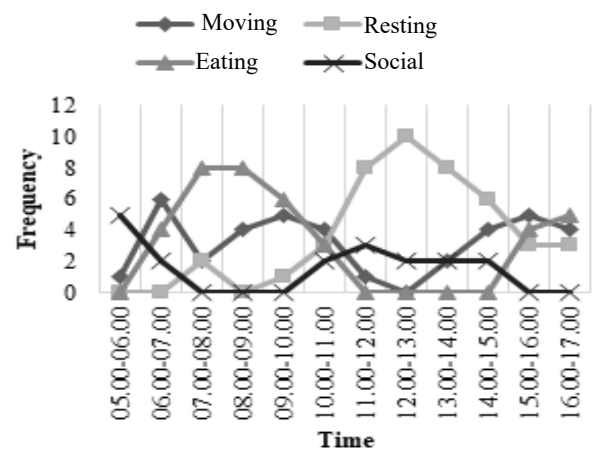


Figure 1. Daily activities of Javan gibbons

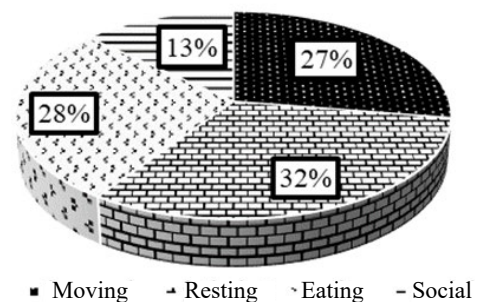


Figure 2. Percentage of Javan gibbon activity



The percentage of observed activities shows that resting has the largest value and is followed by eating, moving, and socializing with values of 32%, 28%, 27% and 13% respectively. Resting is the most dominant activity of the Javan gibbon family (Ilham et al. 2019). Kim et al. (2010) also stated that Javan gibbons in sub-montana spent 41% of their time resting, 36% eating, 15% moving, 6% doing social activities, and 2% doing aggressive interactions. It is suspected that these differences occur due to differences in habitat conditions, differences in the groups observed and differences in the assumptions used in the two studies.

Resting is the dominant activity in overall daily activities. Napier (1985) stated that Javan gibbons differ from great apes that build nests but sleep in an upright sitting position with ischial callosities as the base. The most common resting posture is sitting on ischial callosities with both knees bent towards the body, but sometimes Javan gibbons also rest by straightening their legs. The next activity is eating, groups of Javan gibbons usually look for food using all their feet and hands when moving between the tips of small branches and putting food into their mouths. The gibbons use a variety of eating positions, such as sitting and hanging. Movement activities consist of jumping, swinging, hanging, and bipedal. Swinging and hanging activities are the highest movement activities, and are interspersed with jumping and bipedal. The long arm structure of the Javan gibbon allows the Javan gibbon to move by brachiation (Geissmann 1993; Suzuki et al. 2003; Ilham et al. 2019). Brachiation is the most frequently performed movement activity (Ilham et al. 2019), followed by hanging, jumping and bipedal. Bipedal is rarely performed because this movement can only be done on large tree branches (Rahman, 2011). Social activities are the least frequently performed activities, most of these social activities include interactions between female parents and their offspring in childcare activities, while contact between group members and groups with other species occurs in smaller proportions, including grooming and chasing each other. Social activities in the form of agonistic/aggressive in the Javan gibbon group were also found when the Javan gibbon group met the surili (*Presbytis commata*) and long-tailed monkey (*Macaca fascicularis*) with the same food tree, although there was no direct fight.

Confrontation was still seen through the vocalizations issued and the movements of the male and female Javan gibbons. Gibbons control and defend their territory through vocalization and confrontation and prevent it with physical aggression. This is different when the Javan gibbon meets the Javan langur (*Trachypithecus auratus*) on the same food tree. The Javan Gibbon typically avoids confrontation and relocates to another tree. However, confrontation is carried out again when it meets a predator or human with vocalization (Nijman, 2004; Ario et al. 2018) and excessive defecation. Excessive defecation is also carried out by the lar gibbon (Clarke et al. 2011).

### **Tourist Perceptions of Javan gibbon Ecotourism**

Travelers who were respondents to this study consist of 30 local tourists and 30 foreign tourists. Majority of local tourists come from the provinces of DKI Jakarta and West Java, while foreign tourists are dominated by Asian tourists, precisely the middle east. The tourist perceptions were measured by using 7-Likert-Scale of agree/not agree. Generally, tourists strongly agree with the statement that Javan gibbon ecotourism is an activity that supports the protection (Luck, 2003) of Javan gibbons, increases community employment opportunities, and increases understanding of the importance of the existence of Javan gibbons (Buckley, 2004). This result showed at Figure 3.

### **Tourists Perception and Preference to the Marketing Mix of Javan gibbon Ecotourism**

McCarthy (1968) developed the marketing mix concept that Borden (1964) had created. The marketing mix concept is a maintenance strategy or defense strategy that can be used by companies. The marketing mix divides this strategy into 4 groups known as the Four P's (4P), namely product, price, place, and promotion (Kotler and Keller, 2009). After seeing the tourists' perception about javan gibbon ecotourism activity, analyzing tourists' perception about marketing mix of Javan gibbon ecotourism business development was conducted. This research was conducted by asking questions to 30 domestic tourists and 30 foreign tourists to see comprehensive perception about Javan gibbon ecotourism business development.



## Product

Product is a marketing mix that discusses the attributes contained in the product, both physical and non-physical. The product attributes discussed in this study are a development of the theories of McCarthy (1968), Kotler and Keller (2009), and Pride and Ferrel (2014), including packaging, time or duration, features, packages offered (package), style, brand, and provider of the Javan gibbon ecotourism product (Payangan et al., 2017). Tourist perceptions on Javan gibbon ecotourism product mix were measured by using Likert-Scale of important/not important (Figure 5a, 5b, 5c, 5d).

Brand as an element of product mix also has some attributes asked to the customers (Figure 5a). Based on potential customers' perception and preferences, both local and foreign tourists strongly agree that a brand should give a good impact to the surrounding and represented by the architecture of the brand i.e name, logo, color theme, etc. Kaur and Kaur (2019) found the importance of the company's brand logo in enhancing the brand image. The results further highlighted that brand personality dimensions and brand familiarity mediate the relationship between brand logo and brand image.

Attributes of packaging (Figure 5b) that are the most important for local tourists are the operator/provider and travel agent of this ecotourism activity. This is because to have a trip or tour in a National Park or rural area, the customers believe they must be selective and trust operators and agencies who should be in charge to get tourists there. While, foreign tourists prefer the logo and guide as the most important attributes in packaging. The tourists believe that with the logo, they can remember the brand of this tourism activity easily and this also applied to their need to guide.

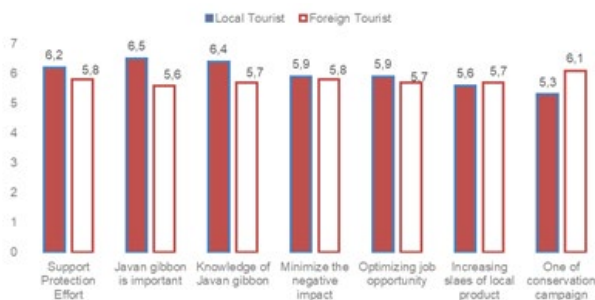


Figure 3. Tourist Perceptions of Javan gibbon Ecotourism

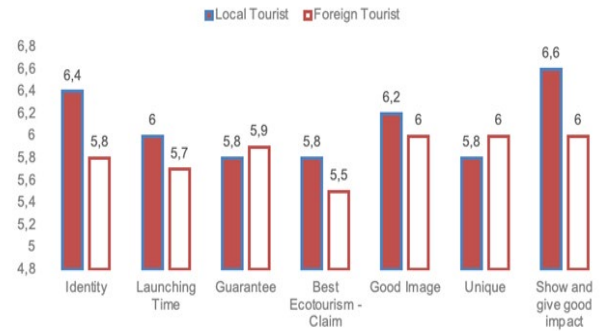


Figure 5(a). Tourists' Preference of Brand

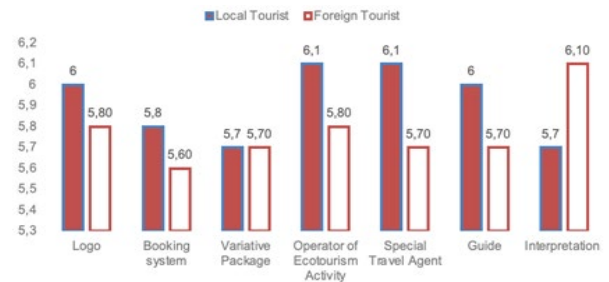


Figure 5(b). Tourists' Preference of Packaging

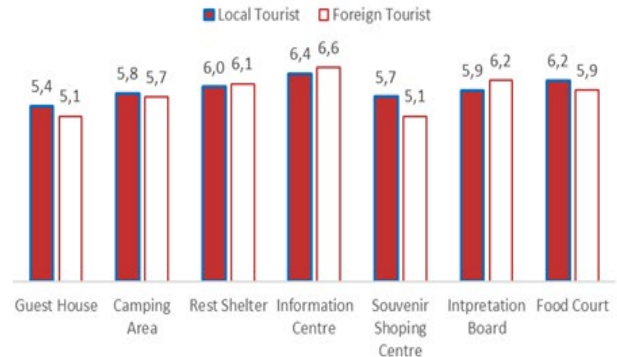


Figure 5(c) Tourists' Preference of Features

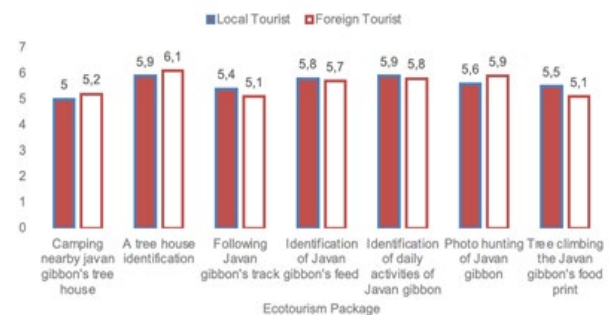


Figure 5(d). Tourists' Preference of Activities



As 'feature' (Figure 5c) is the additional facilities given by the operator to customers, a feature that is felt so important for both local and foreign customers is the availability Information Centre. Tourist Information Centre (TIC) not only works as an office to be visited by tourists, but also as a distribution point of information through local transport and accommodation providers (Nicula, 2012). While, the ecotourism package of attraction (Figure 5d) that the tourists strongly agree to be developed is seeing the tree house of Javan gibbon.

### **Price**

Foreign and local tourists in this study were also asked to choose the price they were ready to pay in exchange for the uniqueness and all the tourism potential in the Java gibbon ecotourism package. The majority of local tourists answered, the price below IDR500,000 is the price that is ready to be paid for the Javan gibbon tour, while the majority of foreign tourists are ready to pay IDR500,000-1,000,000 (\$ 35- \$ 70) for this ecotourism product.

### **Promotion**

Regarding promotion, one way that can be used to determine effective and efficient promotional pathways is by analyzing the VALS survey. The majority of foreign tourists in this study were consumers of Experiencers. The type of experiencers consumers are consumers who are very sensitive to the latest trends and try to follow them, assume that friends are very important in decision making, like socializing in groups, and really like physical activity. Based on the characteristics of these foreign tourists, viral marketing would be an effective promotional strategy, making news that was very positive or very negative to become a trend and conversation in the community, especially potential visitors of the Javan gibbon ecotourism. In addition, special promotions to communities using website and official media social (Suryanto et al. 2021) are also very efficient because they are cost effective and right on target (Middleton, 2009).

The majority of domestic tourists in this study were of Strivers type. Strivers type of consumers are consumers who have little resources, not the most sensitive to the latest trends but ambitious to follow existing trends, and like things that are fun (fun). For this reason, effective promotions for strivers are promotions that feature fun tours, affordable travel, increase discounts, bonuses, or

cashback (Backman et al. 1999). In addition, promotion channels using celebrity endorsers can also be done since they are ambitious to follow existing trends. Status-oriented Strivers (Piirto, 1991; Valentine and Powers, 2013) certainly look at the authority or legality of the operator implementing this ecotourism. Thus, the selection of a tour package provider or operator is very important. Promotion of Javan gibbon ecotourism on the official TNGGP website is also very necessary so that this type of tourist is more interested and believes in the legality of this ecotourism (VALS by Strategic Business Insights, 2009).

Integrative 4P's marketing mix with the result of VALS Survey to structure the promotion strategies also shown below:

#### **Product**

- Experiencers (Foreign Tourists): Since Experiencers are trend-sensitive and enjoy physical activities, the product offerings for this group should focus on dynamic and adventurous experiences, such as guided treks, wildlife photography, and educational activities related to Javan gibbons. Emphasizing the uniqueness and novelty of these experiences can enhance their perception of the product as being trendy and exciting.
- Strivers (Domestic Tourists): Strivers prioritize affordability and fun, so the product should include budget-friendly options that still provide enjoyable and engaging experiences. Highlighting features like interactive tours, family-friendly activities, and opportunities for entertainment will make the ecotourism experience more appealing to this group.

#### **Price**

- Experiencers: This group might be less sensitive to price if they perceive the experience as trendy and valuable. Offering exclusive packages or limited-time activities could create a sense of urgency and appeal to their desire to follow the latest trends. Transparent pricing that includes conservation contributions might also resonate with them.
- Strivers: Price is a significant factor for Strivers, who have limited resources but are eager to participate in affordable and enjoyable experiences. Promotions that focus on discounts, cashback offers, or value-for-money deals will attract this



group. A tiered pricing strategy that offers various price points can cater to their budget while still encouraging them to engage with the experience.

#### Place (Distribution)

- **Experiencers:** Since Experiencers are highly social and active on digital platforms, distributing information about Javan gibbon ecotourism through engaging online channels, like social media and travel websites, is crucial. Making it easy to access booking options via mobile-friendly platforms will also enhance their engagement.
- **Strivers:** Strivers look for reliability and trust in the services they choose. Promotion through the official TNGGP website, highlighting the legality and credibility of the ecotourism operator, will be essential to gain their trust. Ensuring that booking processes are straightforward and accessible will also help attract this segment.

#### Promotion

- **Experiencers:** Viral marketing is particularly effective for Experiencers, who enjoy staying ahead of trends and engaging in social conversations. Creating buzzworthy campaigns that go viral either through intriguing stories about Javan gibbon conservation or visually stunning content can capture their attention. Collaborating with influencers or platforms where trends are often discussed can also amplify reach and engagement.
- **Strivers:** For Strivers, who are influenced by trends and celebrity endorsements, promotions that involve popular figures or endorsers will resonate well. Highlighting fun and affordable aspects of the tour through these endorsements can increase their interest. Promotional content that emphasizes discounts or bonuses, delivered via trusted channels, will further attract this group.

#### Managerial Implication

Ecotourism is responsible tourism that provides sustainable benefits in the socio-economic aspects of local communities and the environment. Ecotourism Australia (2013) states that ecotourism is tourism or tourism that is ecologically sustainable and encourages the development of understanding, appreciation or appreciation, and actions for environmental and cultural conservation. The Ecotourism Society (1995) explains

ecotourism as responsible travel to natural places that conserve the environment and improve the welfare of local communities. Wildlife is part of the environment, and can be used as an ecotourism object.

Wildlife tourism has been proposed as a way to secure sustainable economic benefits and support wildlife conservation and local communities (eg Shackley, 1996; Fennell, 2003; Ashley and Roe, 1998 in Manfredo, 2002). This special tourism brings tourists together with wildlife, this is very interesting and its interest is increasing (Kozak and Baloglu, 2010, Konečnik, 2010). This activity combines the main features of wildlife with other tourism activities as a complement (Higginbottom, 2004).

The results of tourist perceptions of the marketing mix state that the information center, logo, guide, duration 3–6 hours, number of tourists 4–8 people, the most favorite activities are observing Javan gibbons, and studying sleeping trees, and the preferred behavior is eating and hanging, and the price that is willing to be paid from below IDR500,000 to IDR1,000,000. Regarding promotion, things that need to be done are viral marketing and pricing strategy (Ndahimana et al. 2013). Based on these two aspects, namely ecology and tourist perception, an ecotourism program can be prepared which is combined with accessibility, facilities and infrastructure, other tourism resources in the Bodogol Resort and around the resort as a complement to Javan gibbon ecotourism (Table 3). The above things that are already included are the basis for forming an ecotourism program menu. Before compiling the program, it is necessary to classify several activity (Bălteanu, 2008; Holloway, 2004) as follows:

1. **Camping:** camping in tropical rainforests, camping in pine forests
2. **Sleeping tree exploration:** sleeping in a tree 30 m close to the sleeping tree of the Javan gibbon
3. **Feeding exploration:** getting to know the Javan gibbon's feed, and its relationship to seed distribution, as well as the benefits of Javan gibbon feed for humans
4. **Tree climbing:** climbing trees and following the Javan gibbon's trail
5. **Activity observation:** observing the Javan gibbon using binoculars
6. **Photo and video hunting:** hunting for the best photos and the best videos of the Javan gibbon and the beauty of nature
7. **Tracking:** short tracking and long tracking at the



Bodogol resort while getting to know the Javan gibbon habitat

The ecotourism program is compiled by combining the activity menus resulting from the identification of Javan gibbon data and visitor perceptions (Johann and Panchapakesan, 2015) and preferences. The following are 5 Javan gibbon ecotourism programs that planned to be implemented 5 years ahead:

When strategically designed, these activities can make a tangible contribution to conservation efforts by raising awareness, encouraging responsible behavior, and generating financial support for environmental initiatives.

#### 1. Raising awareness and educating tourists

Awareness raised through well-crafted promotional content encourages visitors to become more conscious of their impact on the environment. It also motivates them to adopt sustainable behaviors, such as reducing waste, following ecotourism guidelines, and respecting wildlife habitats. As more people become aware of conservation challenges, they are more likely to support initiatives aimed at protecting the natural environment.

#### 2. Driving financial support for conservation activities

Revenue generated from ecotourism activities can be reinvested into conservation projects, such as habitat restoration, anti-poaching measures, and local community development initiatives.

#### 3. Creating responsible tourism behavior

When tourists are well-informed about the appropriate behaviors and guidelines while visiting ecotourism sites, this will impact leads to the preservation of delicate ecosystems. Encouraging behaviors like staying on designated trails, avoiding wildlife disturbances, and supporting local conservation efforts directly contributes to the well-being of the environment (Honey, 2008).

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Tourist perception of Javan gibbon is high, reviewing the results of tourist perception of Javan gibbon ecotourism is very good, and from the marketing mix of products consisting of packaging, time, features, brand, and package development, visitors strongly agreed that all the attributes are important to be realized in the ecotourism of Javan gibbon product. Thus, ecotourism development should focus on enriching the product marketing mix while aligning with visitor willingness to pay in the range of IDR500,000 to IDR1,000,000 with digital marketing strategies through social media and endorse influencers on a massive and regular basis, since TNGGP has not applied this promotion strategy.

While the study provides valuable insights into the perceptions of visitors to Javan gibbon ecotourism and the potential effectiveness of a targeted marketing mix, several limitations must be acknowledged. The findings are based on data from a specific group of tourists, within a particular timeframe, in specific national park which is Gunung Gede Pangrango National Park. Therefore, this may not fully represent broader visitor preferences from other national parks with different level of facilities, setting, price range, and attraction offered. The proposed digital marketing and influencer strategies, although promising, require empirical validation to confirm their impact on attracting and engaging new visitors. Furthermore, the identified price range is subject to change due to economic factors and shifting consumer expectations. Future research should consider a more diverse sample of national parks, longitudinal data collection, and pilot testing of promotional strategies to validate and refine these findings.

### Recommendations

The Recommendations made for TNGGP operator is to apply the result of this study. This study utilizes the 4P's Marketing Mix to analyze perceptions, willingness to pay, and promotion channels preferred by actual visitors to TNGGP, as captured through questionnaires distributed on-site. For future research, the financial perspective should be done to see the visibility of implementation of Javan gibbon ecotourism business development.



**FUNDING STATEMENT:** This research did not receive any specific grant from public, commercial, or not-for-profit funding agencies.

**CONFLICTS OF INTEREST:** The author declares no conflict of interest.

## REFERENCES

- Altman, J. (1974). Observational study of behavior: Sampling methods. *Behaviour*, 49(3), 227-267.
- Anis, A. V., & Iskandar, S. (2011). Daily activities of released silvery-Javan gibbon pair (*Hylobates moloch*) at Patiwel Forest, Gunung Gede National Park: A preliminary study. Makalah INAFOR. Bogor, Indonesia: Pusat Litbang Konservasi dan Rehabilitasi.
- Arbieua, U., Grünewald, C., Martín-López, B., Schleuning, M., & Böhning-Gaese, K. (2017). Mismatches between supply and demand in wildlife tourism: Insights for assessing cultural ecosystem services. *Ecological Indicators*, 78, 282-291.
- Ario, A. (2010). Aktivitas harian owa Jawa (*Hylobates moloch* Audebert, 1798) rehabilitan di Blok Hutan Patiwel Taman Nasional Gunung Gede Pangrango. In *Owa Jawa di Taman Nasional Gunung Gede Pangrango*. Bogor: Conservation International (CI) Indonesia.
- Ario, A., Supriatna, J., & Andayani, N. (2011). *Owa Jawa di Taman Nasional Gunung Gede Pangrango*. Jakarta: Conservation International (CI) Indonesia.
- Ario, A. (2017). Owa Jawa lebih setia dengan pasangan dibanding manusia. Retrieved April 19, 2019, from <https://www.liputan6.com/regional/read/3040209/owa-jawa-lebih-setia-dengan-pasangan-dibanding-manusia>
- Ario, A., Kartono, A. P., Prasetyo, L. B., & Supriatna, J. (2018). Post-release adaptation of Javan gibbon (*Hylobates moloch*) in Mount Malabar Protected Forest, West Java, Indonesia. *Biodiversitas*, 19(4), 1482-1491.
- Avenzora, R. (2008). *Ekoturisme: Teori dan Praktek*. Nias: BRR NAD.
- Backman, K., Backman, S., & Silverberg, K. (1999). An investigation into the psychographics of senior nature-based travelers. *Tourism Recreation Research*, 14(1), 13-22.
- Băltescu, C. A. (2008). Planning and creating tourism products. *Bulletin of the Transilvania University of Braşov*, 1(50), 205-210.
- BTNGGP. (2015). *Selayang pandang Taman Nasional Gunung Gede Pangrango*. Cianjur: BBTNGGP.
- BTNGGP. (2017). Survey penyebaran tumbuhan jenis asing (alien spesies) yang berpotensi invasif di bidang PTN wilayah III Bogor. Bogor: BTNGGP.
- BTNGGP. (2018). *Statistik Balai Besar Taman Nasional Gunung Gede Pangrango tahun 2017*. Cianjur: BBTNGGP.
- BKSDA Jawa Barat. (2017). Owa Jawa makin terancam karena perburuan dan perusakan habitat alami. Retrieved March 16, 2019, from <https://regional.kompas.com/read/2017/10/08/18364251/owa-jawa-makin-terancam-karena-perburuan-dan-perusakan-habitat-alami>
- Borden, N. H. (1964). The concept of the marketing mix. *Journal of Advertising Research*, 4, 2-7.
- Buckley, R. (2004). *Environmental impacts of ecotourism*. Oxfordshire: CABI Publishing.
- Clarke, E., Reichard, U. H., & Zuberbühler, K. (2011). The anti-predator behaviour of wild white-handed gibbons (*Hylobates lar*). *Behavioral Ecology and Sociobiology*, 66(1), 85-96.
- Davis, D., Tisdell, C., & Hardy, M. (2001). *Wildlife tourism research report no. 3, status assessment of wildlife tourism in Australia series, the role of economics in managing wildlife tourism*. Gold Coast: CRC for Sustainable Tourism.
- Deputi Bidang Pengendalian Kerusakan Lingkungan dan Perubahan Iklim, KLHK. (2015). *Strategi nasional dan arahan rencana aksi pengelolaan jenis asing invasif di Indonesia*. Jakarta: KLHK.
- Dewi, H., Prasetyo, L. B., & Rinaldi, D. (2007). Pemetaan kesesuaian habitat owa jawa (*Hylobates moloch* Audebert 1798) di Taman Nasional Gunung Halimun-Salak. *Media Konservasi*, 12(1), 1-9.
- Ecotourism Australia. (2013). *ECO and ROC certification essentials*. Bowen Hills: Ecotourism Australia.
- Fennel, D. (2003). *Ecotourism: An introduction* (2nd ed.). Oxfordshire: Taylor & Francis Group.
- Gaul, D. (2003). *Environmental impacts of ecotourism: A literature review*. Food and Agricultural Organization. Retrieved December 17, 2019, from <http://foris.fao.org/static/pdf/foph/ecotour.pdf>
- Geissmann, T. (1993). *Evolution of communication in gibbons (Hylobatidae)* [Dissertation]. Zürich: Zürich University.



- Gurmaya, J. G., Saryatiman, A. B., Danardono, S. N., Sibuea, T. T. H., & Adiputra, I. M. W. (1992). A preliminary study on ecology and conservation of Java's primates in Ujung Kulon National Park, Indonesia. In Tilson, R., et al. (Eds.), *Javan Gibbon and Langur Population and Habitat Viability Analysis Workshop, Briefing Book*. Bogor: Taman Safari Indonesia.
- Higginbottom, K. (2004). *Wildlife tourism: An introduction*. In *Wildlife Tourism: Impacts, Management and Planning*. Australia: Common Ground Publishing.
- Holloway, J. C. (2004). *Marketing for tourism* (4th ed.). New Jersey: Prentice Hall.
- Honey, M. (2008). *Ecotourism and sustainable development: Who owns paradise?*. Washington DC: Island Press.
- Ilham, M., Farajallah, D. P., & Iskandar, E. (2019). Aktivitas dan perilaku pasangan owa jawa (*Hylobates moloch*) di Javan Gibbon Centre. *Jurnal Ilmu Pertanian Indonesia*, 24(3), 273-279.
- Iskandar, E. (2007). *Habitat dan populasi owa jawa (Hylobates moloch Audebert, 1798) di Taman Nasional Gunung Gede Pangrango Jawa Barat* [Thesis]. Bogor: Institut Pertanian Bogor.
- Iskandar, S. (2016). *Bioekologi dan konservasi owa Jawa*. Bogor: Forda Press.
- IUCN. (2017). *The IUCN red list of threatened species*. Version 2017-1. Retrieved April 17, 2019, from <http://www.iucnredlist.org>
- Jiang, X. L., Luo, Z. H., & Zhao, S. Y. (2006). Status and distribution patterns of black crested gibbon (*Nomascus concolor jingdongensis*) in Wulian Mountains, Yunnan, China: Implications for conservation. *Primates*, 47, 264-271.
- Johann, M., & Panchapakesan, P. (2015). The comparative analysis of senior and non-senior package holiday travelers' tourism product preferences. *Journal of Economics and Management*, 22(4), 132-141.
- Kartono, A. P., Prastyono, & Maryanto, I. (2002). Variasi aktivitas harian *Hylobates moloch* (Audebert, 1798) menurut kelas umur di TN Gunung Halimun, Jawa Barat. *Berita Biologi*, 6, 67-74.
- Kim, S., Lappan, S., & Choe, J. C. (2010). Diet and ranging behavior of the endangered Javan gibbon (*Hylobates moloch*) in a submontane tropical rainforest. *American Journal of Primatology*, 73(3), 270-280.
- Konečnik, M. (2010). *Trženje v turizmu* [Marketing in tourism]. Ljubljana, Slovenia: Meritum.
- Kotler, P., & Keller, K. L. (2009). *Manajemen pemasaran* (Jilid 1 & 2, Bob Sabran, Trans.). Jakarta: Erlangga. (Original work published in 2009).
- Kozak, M., & Baloglu, S. (2010). *Managing and marketing tourist destinations: Strategies to gain a competitive edge*. Oxfordshire: Routledge Publishing House.
- Luck, M., & Kirstges, T. (2003). *Global ecotourism policies and case studies: Perspectives and constraints*. Plekdon: Channel View Publications.
- Manfredo, M. J. (2002). *Wildlife viewing in North America: A management planning handbook*. Colorado: Colorado State University.
- Middleton, V. T. C., Fyall, A., & Morgan, M. (2009). *Marketing in travel and tourism* (4th ed.). Oxford: Butterworth-Heinemann.
- Napier, J. R., & Napier, P. H. (1985). *The natural history of the primate*. Cambridge: MIT Press.
- Ndahimana, M., Musonera, E., & Weber, M. (2013). Assessment of marketing strategies for ecotourism promotion: A case of RDB/tourism and conservation in Rwanda. *Journal of Marketing Development and Competitiveness*, 7(2), 37-56.
- Nijman, V. (2004). Conservation of the Javan gibbon (*Hylobates moloch*): Population estimates, local extinction, and conservation priorities. *The Raffles Bulletin of Zoology*, 52(1), 271-280.
- Payangan, O. R., Sahabuddin, R., & Girikallo, A. S. (2017). Mediation effect of marketing mix strategy on supply and demand towards marketing performance. *Journal of Environmental Management and Tourism*, 8(17), 223-231.
- Phan, C., & Gray, T. (2009). The status and habitat of yellow-cheeked crested gibbon (*Nomascus gabriellae*) in Phnom Prich Wildlife Sanctuary Mondulkiri. Phnom Penh: WWF Greater Mekong Programme.
- Piirto, R. (1991). VALS the second time. *American Demographics*, 13(7), 6.
- Pride, W. M., & Ferrel, O. C. (2014). *Marketing* (17th ed.). Mason: South-Western Cengage Learning.
- Rahman, D. A. (2011). *Studi perilaku dan pakan owa jawa (Hylobates moloch) di Pusat Studi Satwa Primata IPB dan Taman Nasional Gunung Gede Pangrango: Penyiapan pelepasliaran* [Thesis]. Bogor: Institut Pertanian Bogor.
- Rowe, N. (1996). *The pictorial guide to the living*



- primates. New York: Pogonion Press.
- Sjahfirdi, L., Putri, A. R. M., Maheswari, H., Astuti, P., Ningtyas, D. P., & Budiarti, G. R. (2009). Perilaku makan dan preferensi orangutan (*Pongo pygmaeus* Linnaeus 1760) muda di penangkaran. In Seminar Nasional MIPAnet: Bridging MIPA and Society. Bali.
- Soerianegara, I., & Indrawan, A. (2005). Ekologi hutan Indonesia. Bogor: Laboratorium Ekologi Hutan, Fakultas Kehutanan, Institut Pertanian Bogor.
- Strategic Business Insights. (2015). Value and lifestyle. Retrieved April 20, 2019, from <http://www.strategicbusinessinsights.com/vals/about.shtml>
- Sugiyono. (2009). Metode penelitian kuantitatif, kualitatif dan R&D. Bandung: Alfabeta.
- Supardi. (2006). Metodologi penelitian. Mataram: Yayasan Cerdas Press.
- Supriatna, J., & Wahyono, E. H. (2000). Panduan lapangan primata Indonesia. Jakarta: Yayasan Obor Indonesia.
- Supriatna, J. (2006). Conservation programs for the endangered Javan gibbon (*Hylobates moloch*). *Primate Conservation*, 21, 155-162.
- Supriatna, J., Mootnick, A., & Andayani, N. (2010). Javan gibbon (*Hylobates moloch*) population and conservation. In Gursky, S., & Supriatna, J. (Eds.), *Indonesian primates*. New York: Springer.
- Suryanto, E., & Suroso, A. I., Hasbullah, R. (2021). Business models architecture of Grasberg tourism post-mining. *Jurnal Aplikasi Bisnis dan Manajemen*, 7(3), 743. <http://dx.doi.org/10.17358/jabm.7.3.743>
- Suzuki, J., Kato, A., Maeda, N., Hashimoto, C., Uchikoshi, M., Mizutani, T., Doke, C., & Matsuzawa, T. (2003). Plasma insulin-like growth factor-I, testosterone, and linear body measurements in growing chimpanzees. *Primates*, 44(4), 309-315.
- Turaga, R. M. R., Howarth, R. B., & Borsuk, M. E. (2010). Pro-environmental behavior: Rational choice meets moral motivation. *Annals of the New York Academy of Sciences*, 1185, 211-224.
- WWF Indonesia. (2019). Owa jawa (*Hylobates moloch*) semakin terancam punah. Retrieved April 17, 2019, from <https://www.wwf.or.id/?49484/Owa-Jawa-Hylobates-moloch-Semakin-Terancam-Punah>