



RESEARCH ARTICLE

Community Perceptions Of Honey Bee Cultivation In Angkah Village, West Selemadeg Sub-District, Tabanan District

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ARTICLE INFO	ABSTRACT
Received: Apr 24, 2024	A village with an abundance of resources, Angkah Village supports the wellbeing of the community economically. Angkah Village plays a major role in the production and marketing of honey due to its tropical climate. The highly valuable product that honey bees produce is honey. This honey bee is widely developed by farmers in Angkah Village from cultivation to marketing. The community in Angkah Village in raising honey bees has never received counseling from the government, so the community often experiences obstacles in the development of these honey bees. This study aims to analyze community perceptions, factors that influence perceptions, problems in honey bee cultivation and communication patterns that exist in the farming community. With an average score of 3.92, the results demonstrated that the farming community's impression of honey bee cultivation in Angkah Village was in the favorable category. Factors influencing the perception of the farmer community are farmer age, formal education, occupation, attitude, experience, knowledge, and information. Farmers' problems in developing honey bee cultivation in Angkah Village are difficulty getting feed during the rainy season and natural enemies. The communication pattern of the farming community that occurs in Angkah Village is in the form of two-way communication which includes farmers with extension workers, farmers with village heads, farmers with community leaders, and farmers with novice farmers. The honey beekeeping community in Angkah Village continues to make efforts to increase honey bee production, because it has many health benefits and there is support from the Tabanan Regency government in providing counseling to honey farmers.
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INTRODUCTION

The goal of development in the livestock sector is to raise the number of animals and provide jobs to support the industrial sector and raise community standards of life. Food needs are rising as a result of Indonesia's growing population and rising food prices. Every community will look for new innovations to realize food ingredients with good quality so that the role of the livestock sector is very important for the community in sustaining its life.

Indonesia has a great opportunity to cultivate honey bees because of the richness of tropical forests as a place for honey bee cultivation. Indonesia's forest resource is highly valuable economically since

it contributes to the welfare of the populace. Honey bees cultivated by the community have enormous benefits for the health of people's lives. In addition, the honey bees produced can also be used as beauty ingredients and food ingredients.

Bee honey is one of the community's income sources to fulfill their family needs. Besides for consumption, the honey produced can also be packaged and sold in the market. Angkah Village, West Selemadeg District, Tabanan Regency is one of the communities in Bali Province that raises honey bees. The natural surroundings of Angkah Village, which include numerous moorlands cultivated with animal feed like calliandra and coffee as well as numerous overgrown flowers like bride's tears, encourage the growth of honey bee farming in the area. Flowers as a source of bee feed are very supportive for the life of honey bees.

The existence of honey bees in Angkah Village has a very big opportunity for cultivation. Many honey beekeepers have been able to sell their honey to the market in plastic bottles. So that the results of the marketing can support the economy of farmers in Angkah Village. Farmers are very interested in cultivating honey bees because it is considered very easy to do honey bee farming.

For a long time, the community has never received counseling from the government, so people often experience obstacles in the development of these honey bees. The view of Ramdani et al. (2014), which claims that issues with feed, maintenance, funding, counseling, technical guidance, and pests are issues for farmers, supports this.

Given the foregoing context, study on the opinions of the locals on honey bee farming in Angkah Village, West Selemadeg District, Tabanan Regency, is necessary. It is anticipated that the study's findings would shed light on common views, perception-influencing variables, challenges faced by farmers raising honey bees, and patterns of communication within the farming community.

1. METHODS

The study was carried out in Angkah Village, West Selemadeg District, Tabanan Regency, with an emphasis on examining viewpoints within the community. Purposive location selection is a technique for choosing a study site based on specific criteria (Hadi, 1983). This is how the place was chosen. The 278 honey bee farmers in Angkah Village that participated in this study were the population. Purposive sampling was utilized in this study to select 84 respondents (30% of the population), taking into account that the respondents had managed honey bees for five years. In this study, documentation, literature reviews, interviews, and observation were used as data collection methods.

Primary data and secondary data are the two categories of data needed for this investigation. To get primary data, interviews and observations were done. With the aid of a questionnaire, interviews were carried out in an organized manner. Finding theories about the subject of the study yields secondary data. In this study, both quantitative and qualitative descriptive analysis was employed as the data analysis method.

2. RESULTS AND DISCUSSION

3.1 Characteristics of Respondents

84 people from the honey beekeeping community in Angkah Village, West Selemadeg Sub-district, Tabanan Regency participated in this study. The following will be a description of the age, educational attainment, and occupation of the respondents who participated in this study.

Age

When considering the characteristics of the study participants based on their age, Table 1 presents the distribution of the respondents' age as follows:

Table 1. Frequency distribution of respondents' age

No.	Age (year)	Frequency	Percentage (%)
1	< 17	0	0,00
2	17-64	76	90,48
3	> 64	8	9,52
Total		84	100

Source: Data processed from survey results

According to the study's findings, 90.48% of respondents were between the ages of 17 and 64, while 9.52% of respondents were older than 64. This demonstrates that the responders are still in the productive age range, which helps the farming community produce more labor for honey beekeeping.

Educational Level

The education data of the respondents was tabulated and the results are shown in the following table:

Table 2. Frequency distribution of respondents' education level

No.	Educational Level	Frequency	Percentage (%)
1	No schooling	0	0
2	Elementary school	8	9.52
3	Junior high school	10	11.90
4	Senior high school	54	64.29
5	Bachelor	12	14.29
Total		84	100

Source: Data processed from survey results

Data tabulation based on respondents' educational backgrounds shows that 8 respondents in the elementary school category had an education level of 9.52%, 10 respondents in the junior high school category had an education level of 11.90%, 12 respondents had a bachelor's degree with an education level of 14.29%, and 54 respondents (64.29%) had the highest education level in senior high school. Suarta (2020) claims that because the age group is still young, communication skills are still strong and there is still a strong desire to innovate in order to boost performance. This demonstrates that the responders have a very high degree of education necessary to raise honey bees and sell their goods to the intended market.

Occupation

Table 3 below shows the characteristics of the respondents to this study.

Table 3. Occupational distribution of respondents

No.	Occupation	Frequency	Percentage (%)
1	Not Working	0	0.00
2	Farmer/Rancher	57	67.86
3	Labor	12	14.28
4	Private employee	15	17.86

Total	84	100
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Source: Data processed from survey results

According to the study's findings, 12 respondents had occupations as laborers, accounting for 14.28% of the sample; 15 respondents had jobs as private workers, representing 17.86% of the sample, and 0 respondents did not have a job. However, the greatest occupation among respondents—57 individuals, or 67.86%—was that of farmer and breeder. This indicates that there is a good chance of cultivating honey bees because the majority of responders work in the livestock and agriculture industries.

3.2 Community Perception of Honeybee Cultivation

Perception is a physical and psychological process that causes various kinds of vibrations and pressures to be processed into an arrangement that is emitted or projected by the individual into a depiction of the environment with the focus that most attracts the individual's attention. Often it is also processed in a process with a sense that connects the depiction with various types of information it has received and is projected by the mind and re-evoked as memories or old depictions in consciousness so as to produce a new depiction called appreciation (Koentjaraningrat, 1980).

Three indicators—community knowledge about honey bee cultivation, community skills about honey bee cultivation, and community attitudes about honey bee cultivation—were utilized in this study to gauge how the agricultural community was perceived. Table 4 displays the findings of a study conducted on the locals' opinions about honey bee farming in Angkah Village, West Selemadeg District, Tabanan Regency.

Table 4. Community perceptions of honeybee cultivation in Angkah Village, West Selemadeg District, Tabanan Regency

No.	Variable indicator	Average	Category
		Score	
1	Community Knowledge on Honeybee Cultivation	4,27	Very good
2	Community Skills on Honeybee Cultivation	3,53	Good
3	Attitudes about Honeybee Farming	3,96	Good
Perceptions of Community Breeders		3,92	Good

Source: Data processed from survey results

With a cumulative score of 3.92, the research results in Table 4 indicate that the community's perception of honey bee cultivation is at a good level. This demonstrates how highly the community regards honey farming. The farming community in Angkah Village is very enthusiastic about the profession as a honey beekeeper. So that the results of the honey bee harvest are packaged and marketed to the target market. In terms of selling price, this honey product has a high selling value and selling price, because it is very beneficial for health.

Out of the three variable indicators used to gauge the agricultural community's perceptions, the indicator of community awareness about honey growing scored 4.27, placing it in the very good category. This demonstrates the depth of experience the locals in Angkah Village have in growing honey, from production to marketing. The farming community in Angkah Village has prepared stups and feed in the form of flower plants around the house yard to support honey cultivation so that when viewed from the feed it is quite fulfilled and only during the dry season which has difficulty feeding.

3.3 Factors that Influence Perception

Perception is a process of structuring and translating one's impressions of the environment. Further stated simply, perception is a person's perspective on his environment. A person's perception of an object is a subjective thing, thus a situation can be interpreted as reality by a person based on his perception, even though the actual reality is different in form and nature. According to Donnelly (1996), perception aids people in choosing, classifying, storing, and interpreting stimuli to create a comprehensive and meaningful image of the outside world. Age, formal education, occupation, attitude, experience, knowledge, and information are some of the factors that affect perception.

Based on the results of the analysis, the factors that influence people's perceptions of honey bee cultivation consist of seven variables, namely Age (X_1), Formal Education (X_2), Occupation (X_3), Attitude (X_4), Experience (X_5), Knowledge (X_6), Information (X_7).

Table 5. Multiple linear regression analysis results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.167	.183		3.327	.000
	Age (X1)	.068	.065	.062	0.821	.001
	Formal education (X2)	.371	.121	.101	4.172	.000
	Occupation (X3)	.054	.051	.053	0.732	.001
	Attitude (X4)	.127	.087	.078	1.324	.000
	Experience(X5)	.702	.211	.198	8.402	.000
	Knowledge (X6)	.521	.179	.132	6.321	.000
	Information (X7)	.298	.102	.083	2.198	.000
Dependent Variable: perception						

Source: Data processed from survey results

The multiple linear regression equation of the variables influencing the perspective of the Angkah Village honey farming community is as follows, based on the findings of the analysis of Table 5.

$$Y = 2,167 + 0,068X_1 + 0,371X_2 + 0,054X_3 + 0,127X_4 + 0,702X_5 + 0,521X_6 + 0,298X_7$$

It is evident from the t test findings that each independent variable's t value is:

1. The age of the farmer has a $t_{\text{value}} >$ than the t_{table} value ($0.821 > 2.636$) this means that the age of the farmer has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.

2. Formal education has a $t_{\text{value}} >$ than the t_{table} value ($4.172 > 2.636$) this means that formal education has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.
3. Employment has a $t_{\text{value}} >$ than the t_{table} value ($0.732 > 2.636$), this means that employment has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.
4. Attitude has a $t_{\text{value}} >$ than the t_{table} value ($1.324 > 2.636$), this means that attitude has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.
5. Farming experience has a $t_{\text{value}} >$ from the t_{table} value ($8.402 > 2.636$), this means that farming experience has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.
6. Knowledge has a $t_{\text{value}} >$ from the t_{table} value ($6.321 > 2.636$) this means that knowledge has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.
7. Information has a $t_{\text{value}} >$ than the t_{table} value ($2.198 > 2.636$), this means that information has a significant effect on people's perceptions of cultivating honeybees in Angkah Village, West Selemadeg District, Tabanan Regency.

3.4 Farmers' Problems in Developing Honeybee Farming

The study's findings indicate the following issues facing farmers in Angkah Village, West Selemadeg District, Tabanan Regency, as they try to expand honeybee cultivation:

1. **Difficulty getting feed during the rainy season**
During the rainy season, it is very difficult for farmers to get feed because the flowers rarely appear on the plants so that the honey produced is small and causes farmers to lack honey to be marketed. This causes many requests for honey to not be fulfilled by farmers.
2. **Natural Enemies**
Natural enemies of honeybees in Angkah Village are ants, dragonflies, spiders, and swallows. These natural enemies are very difficult to control by farmers because they spontaneously appear when the bees have produced honey so that the honeybees leave the hive.

2.5 Communication Patterns of Honey Beekeeping Communities

In Angkah Village, Selemadeg Barat Subdistrict, Tabanan Regency, honey beekeepers follow a pattern of communication that begins with the presence of extension workers who actively offer counseling on honeybees, from cultivation to marketing honey products to the target market. Cultivation techniques provided include how to multiply colonies, prepare bee feed, and post-harvest. Farmers are also very active in responding to inputs provided by extension workers.

The presence of community leaders in Angkah Village is very helpful for the success of farmers in honey bee cultivation. Community leaders are very instrumental and provide motivation to farmers so that farmers are more enthusiastic about developing honey bees. The role of the village head determines the success of honey bee farmers, which is indicated by facilitating farmers in the form of a meeting place for farmers in conducting counseling and training. The village head also seeks assistance from third parties so that honey beekeepers can develop well. With the support of community leaders, village heads, and extension workers, many beginner farmers have emerged to develop honey bees. The following can be presented with a picture of the communication pattern of the breeder community.

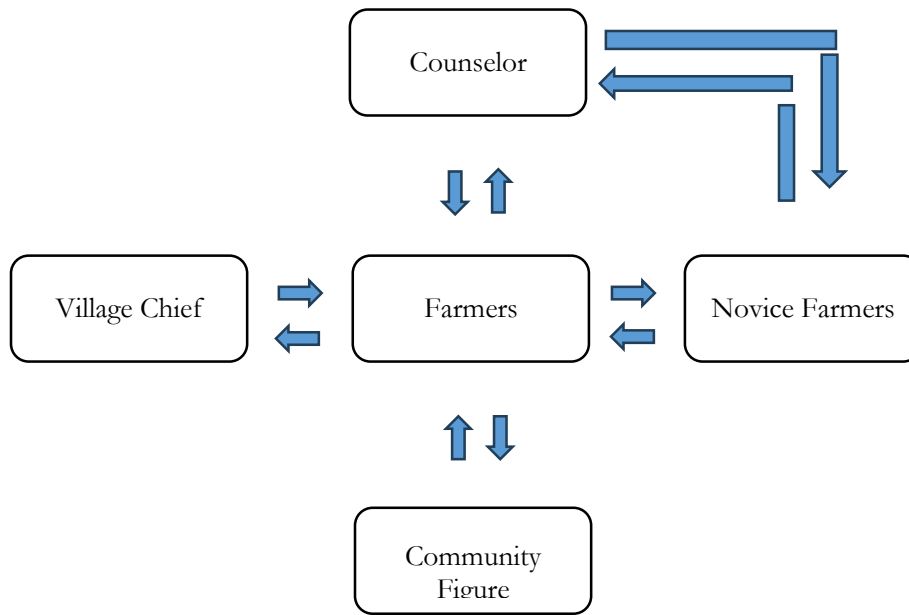


Figure 1. Communication Patterns of Community Breeders

3. CLOSING

CONCLUSIONS

Drawing from the findings and the preceding discourse, it may be inferred that:

1. With an average score level of 3.92, the agricultural community's impression of honeybee cultivation in Angkah Village falls into the good category.
2. Factors influencing the perception of the farming community towards honey cultivation in Angkah Village are farmer age, formal education, work, attitude, experience, knowledge, and information.
3. Farmers' problems in developing honeybee cultivation in Angkah Village are difficulty getting feed during the rainy season and natural enemies.
4. Communication patterns of breeder communities that occur in Angkah Village are in the form of two-way communication which includes breeders with extension workers, breeders with village heads, breeders with community leaders, and breeders with novice breeders.

Suggestions

Several recommendations can be made in light of the analysis and discussion conducted for this study's outcomes, specifically:

1. The honey beekeeping community in Angkah Village should continue to make efforts to increase honeybee production, because it has many health benefits.
2. The honey beekeeping community in Angkah Village should do honey packaging in order to attract consumers to buy their honey products.
3. The Tabanan Regency Government continues to provide counseling to farmers on innovations in good honey farming techniques.

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