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ECONOMIC VALUATION OF TANAH LOT TOURIST ATTRACTION: TRAVEL COST METHOD AND CONTINGENT VALUATION METHOD

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ABSTRACT

This study, entitled "Economic Valuation of Tanah Lot Tourist Attraction: The Travel Cost Method and The Contingent Valuation Method". The objective of the study is to estimate the economic value of Tanah Lot tourist attraction with the travel cost method and the contingent valuation method based on domestic and foreign tourists. The variables used in this study are the dependent variable (number of visits and willingness to pay) and the independent variable (travel expenses, income, time, quality, and presence or absence attractions substitution). The data used in this study are the primary data that answer of the questionnaire from 100 respondents and the secondary data, data on the number of visitors Tanah Lot tourist attractions. The conclusion of the study is the economic value of Tanah Lot tourist attraction based on the travel cost method is the combination of domestic travelers and foreign tourists were in the range of Rp100.637.045.895.000,00 to Rp590.826.836.085.000,00 with average economic value of Rp294.535.273.042.000,00 and the economic valuation of Tanah Lot tourist attraction based on the contingent valuation method is the combination of domestic and foreign tourists were in the range of Rp52.623.720.045,00 to Rp Rp209.324.845.665,00 with average economic value of Rp122.387.253.768,00.

Keywords : *Economic valuation, Travel cost method, Contingent valuation method.*

Introduction

Bali's diverse culture with variety of unique natural landscape make this island into a major tourist destination in the world, so that the entry of domestic and foreign tourists en masse to Bali. This situation makes Tanah Lot Tourist Attraction as one of the major tourist destination in Bali. The impacts are given from this situation, both positive for development and economic growth and negative environmental, social, and culture as a consequence of developments in the area of the island of Bali. Bali as a window for Indonesia tourism business not only attract investors to conduct their business in Bali but also to attract job seekers, both nationally and internationally to work in the tourism sector as a result of population growth in Bali is very high which resulted in population growth and an increase in tourist arrivals. This will have an impact on the lives of three Bali environment that is environmentally harmonious spiritual, social and natural.

In the development of Tanah Lot Tourist Attraction, development of tourism facilities near Tanah Lot perceived spiritual environment has been disturbing the sanctity and spiritual life of the area. Density continues to increase, the gap between those who benefit from tourism and those who are marginalized by tourism has led to social tensions, especially in terms of land use.

The other impact on the natural environment such as loss of farmland fields because conversion into tourist facilities as a result of the need of land for tourism development, such as the conversion of paddy fields into Bakrie Group's golf course next to the Tanah Lot temple. As well as coastal erosion problems that accompany it.

Considering, the number of opportunities and contributions that will be given in the presence of a regional tourism destination. One is the opening of jobs that will improve the welfare of communities around specific and relationship with local revenue contribution of retribution

attractions. Where Tabanan has several leading tourist attraction, Tanah Lot is one of them, which has accounted for approximately 40 percent of total revenue (Bali in figures, 2013). Therefore, the government needs to optimize the use and utilization of regional assets through better asset management. It would require an assessment of the economic from Tanah Lot Tourist Attraction that can be known economic benefits that can later be used as consideration of local governments in decision making related to the optimization, the use and utilization of Tanah Lot Tourist Attraction.

Research Method

This study used a descriptive research design of data collection through a list of questions or market surveys include data collection to test the hypothesis: 1) The economic value is a measurement of the amount of the opinion of the benefits of items and services refers to the concept of willingness to pay of the consumer to acquire items and services produced by natural resources and the environment, 2) Economic valuation is a process in giving estimates and opinions on items and services of an object assessment of natural resources that can not be marketed, in this case the Tanah Lot Tourist Attraction. 3) Travel cost method is a method that examines the costs that would be incurred by an individual for the services of natural resources and the environment by assuming that the value of the services of a travel destination can be seen from willingness to pay. 4) Contingent valuation method is a method to estimate the willingness to pay of individuals directly by asking individuals about their willingness to pay for the items and services offered by an attraction. 5) Consumer surplus is the value of the additional satisfaction obtained in the individual to consume a number of items from the amount paid. The satisfaction is greater than the price paid. 6) Estimates of willingness to pay is calculated the average of willingness to pay of each individual, based on the value of the average (mean) or median based on attraction.

Results and Discussion

Economic Analysis Travel Cost Method

1. Economic Analysis of Domestic Tourist Travel Cost Method

Analysis result of linear regression model the number of domestic tourist visits to Tanah Lot Tourist Attraction is as follows:

$$V = 0,944 - 0,0000005 * TC + 0,0000001 * INCOME - 0,556 * TIME + 0,022 * AGE + 0,739 * DQ - 0,017 * DSUB$$

(R Square: 0.254, F-stat: 3.172)

2. Economic Analysis of Foreign Tourist Travel Cost Method

Analysis results of linear regression model the number of foreign tourist to visits Tanah Lot Tourist Attraction is as follows:

$$V = 1.341 + 0.0000000532 * TC - 0.000000003 * INCOME - 0.464 * TIME + 0,044 * AGE + 0,072 * DQ - 0,693 * DSUB$$

(R Square: 0.292, F-stat: 2.062)

Economic Analysis of Contingent Valuation Method

1. Economic Analysis of Domestic Tourist Contingent Valuation Method

Analysis result of linear regression model the number of domestic tourist visits to Tanah Lot Tourist Attraction is as follows:

$$V = 14681,18 - 0,000989 * TC + 0,000541 * INCOME - 740,45 * TIME - 57.447 * AGE - 1,587.446 * DQ - 104,487 * DSUB$$

(R Square: 0.339, F-stat: 4.780)

2. Economic Analysis of Foreign Tourist Travel Cost Method

Analysis results of linear regression model the number of foreign tourist to visits Tanah Lot Tourist Attraction is as follows:

$$V = 56160,26 - 0,000259 * TC + 0,000181 * INCOME - 3201,21 * TIME + 167,312 * AGE - 8972.17 * DQ - 10702.80 * DSUB$$

(R Square: 0.262, F-stat: 0.138)

Economic Value Estimation of Tanah Lot Tourist Attraction

1. Economic Value Estimation of Tanah Lot Tourist Attraction with Travel Cost Method

The economic value of Tanah Lot Tourist Attraction by using the travel cost method can be known through consumer surplus. Consumer surplus of visitor Tanah Lot Tourist Attraction can be calculated with the formula Fauzi (2006, 216):

$$CS = \frac{V_2}{2b_1}$$

a. CS is the consumer surplus
 b. V is the average number of visits per individual respondents
 c. β_1 is the regression coefficient of respondents travel costs

$$CS = \frac{V^2}{2\beta_1}$$

$$= \frac{(1.85)^2}{2(0,0000005)}$$

$$= Rp3,422,500,-$$

$$CS_{MAKS} = \frac{(V_{nean} + S.E. \text{ of Regrecion})^2}{2\beta_1}$$

$$CS_{MAKS} = \frac{(1,85 + 1,105588)^2}{2(0,0000005)}$$

$$CS_{MAKS} = Rp8.735.500,-$$

$$CS_{MIN} = \frac{(V_{nean} - S.E. \text{ of Regrecion})^2}{2\beta_1}$$

$$CS_{MIN} = \frac{(1,85 - 1,105588)^2}{2(0,0000005)}$$

$$CS_{MIN} = Rp554.149,-$$

The number of domestic visitors Tanah Lot Tourist Attraction in 2013 was as much as 1,805,193 visitors. Then the economic value obtained of Tanah Lot Tourist Attraction by domestic travelers, i.e.: the value of consumer surplus per year on average Rp6.178.273.042.000,00 the consumer surplus in the range up Rp15.769.836.085.500,00 to Rp1.000.345.895.000,00 per year.

2. Economic Value Estimation of Tanah Lot Tourist Attraction with Travel Cost Method based on Foreign Tourist

The economic value of Tanah Lot Tourist Attraction by using *the travel cost method* can be known through consumer surplus. Consumer surplus of visitor Tanah Lot Tourist Attraction can be calculated with the formula Fauzi (2006, 216):

$$CS = \frac{V^2}{2\beta_1}$$

a. CS is the consumer surplus
 b. V is the average number of visits per individual respondents
 c. β_1 is the regression coefficient of respondents travel costs

$$CS = \frac{V^2}{2\beta_1}$$

$$= \frac{(1.72)^2}{2(0,0000000532)}$$

$$= \frac{2(0,0000000532)}{2(0,0000000532)}$$

$$= Rp278.45,113,-$$

$$CS_{MAKS} = \frac{(V_{nean} + S.E. \text{ of Regrecion})^2}{2\beta_1}$$

$$CS_{MAKS} = \frac{(1,72 + 0,70895)^2}{2(0,0000000532)}$$

$$CS_{MAKS} = Rp554.492.303,-$$

$$CS_{MIN} = \frac{(V_{nean} - S.E. \text{ of Regrecion})^2}{2\beta_1}$$

$$CS_{MIN} = \frac{(1,72 - 0,70895)^2}{2(0,0000000532)}$$

$$CS_{MIN} = Rp95.023.496,00$$

The number of foreign visitors Tanah Lot Tourist Attraction in 2013 was as much as 1,037,088 visitors. Then the economic value obtained of Tanah Lot Tourist Attraction by foreign respondents, i.e.: the value of consumer surplus per year on average Rp288.357.000.000.000,00 the consumer surplus in the range up Rp575.057.000.000.000,00 to Rp99.636.700.000.000,00 per year.

Economic Value Estimation of Tanah Lot Tourist Attraction with Contingent Valuation Method

1. Economic Value Estimation of Tanah Lot Tourist Attraction with Contingent Valuation Method

The economic value of Tanah Lot Tourist Attraction by using the contingent valuation method is obtained by multiplying the average sample of the number of population (Fauzi, 2006: 223).

Economic Value of Tanah Lot Tourist Attraction based on Domestic Tourist with Contingent Valuation Method			
Economic Value	Avarage (Rp)	Minimum (Rp)	Maximum (Rp)
WTP/ responden	12.222	5.000	25.000
WTP/year	12.22- x 1,857 = 22.696,-	5.000,- x 1,857 = 9.285,-	25.000,- x 1,857 = 46.425,-
Population	1.805.193,	-	-

Economic Value	40.970.660.328,-	16.761.217.005,-	83.806.085.025,-
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Source: Adapted

2. Economic Value Estimation of Tanah Lot Tourist Attraction with Contingent Valuation Method based on Foreign Tourist

The economic value of Tanah Lot Tourist Attraction by using the contingent valuation method is obtained by multiplying the average sample of the number of population (Fauzi, 2006: 223).

Economic Value of Tanah Lot Tourist Attraction based on Foreign Tourist with Contingent Valuation Method

Economic Value	Average (Rp)	Minimum (Rp)	Maximum (Rp)
WTP/ responden	45.405	20.000	70.000
WTP/year	45.405 x 1,729 = 78.505,-	20.000 x 1,729 = 34.580,-	70.000 x 1,729 = 121.030,-
Population	1.037.088,-		

Economic Value	81.416.593.440,-	35.862.503.040,-	125.518.760.640,-
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Source: Adapted

The Economic Value of Tanah Lot Tourist Attraction with Travel Cost Method

To obtain economic value of Tanah Lot Tourist Attraction with the travel cost method is done by summing the estimated economic value of Tanah Lot Tourist Attraction with the travel cost method based on domestic and foreign tourists. The economic value of Tanah Lot Tourist Attraction with the travel cost method in 2013 can be seen in the table.

Economic Value	Average (Rp)	Min (Rp)	Max (Rp)
TCM Domestic tourist	6.178.273.042,00	1.000.345.895,00	15.769.836.085.500,00
TCM foreign tourist	288.357.000.000,00	99.636.700.000,00	575.057.000.000,00
Economic Value	294.535.273.042.000,00	100.637.045.895.000,00	590.826.836.085.500,00

Source: Adapted

The economic value of Tanah Lot Tourist Attraction with Contingent Valuation Method

To obtain economic value of Tanah Lot Tourist Attraction with the contingent valuation method is done by summing the estimated economic value of Tanah Lot Tourist Attraction with the contingent valuation method based on domestic and foreign tourists. The economic value of Tanah Lot Tourist Attraction with contingent valuation method can be seen in the table.

Economic Value of Tanah Lot Tourist Attraction with Contingent Valuation Method

Economic Value	Average (Rp)	Min (Rp)	Max (Rp)
CVM Domestic tourist	40.970.660.328,00	16.761.217.005,00	83.806.085.025,00
CVM foreign tourist	81.416.593.440,00	35.862.503.040,00	125.518.760.640,00
Economic Value	122.387.253.768,00	52.623.720.045,00	209.324.845.665,00

Source: Adapted

Based on Table, it can be seen the economic value of Tanah Lot Tourist Attraction by using the contingent valuation method in the range of Rp 52,623,720,045.00 to Rp 209,324,845,665.00 with an average economic value Rp 122.387.253.768,00.

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MOBILE INTERNET-BASED LEARNING TO CULTIVATE STUDENTS' SPEAKING SKILL DURING CORONAVIRUS PANDEMIC

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ABSTRACT

Coronavirus pandemic has been spreading in Indonesia and influences the way of Indonesian life. In the education sector, the coronavirus pandemic has forced teachers to conduct all the learning activities from home. The present study dealt with teaching speaking skill through mobile internet-based learning during the coronavirus pandemic where all students had to learn from their own home. The present online learning conducted in two cyclic sessions by making use of pre-test and post-test research design with descriptive and quantitative analysis to collect the required data. The grand mean figures for the first cycle and second cycle showed convincing findings since the mean figure of the initial reflection is much lower than the corresponding mean figures obtained for each session. Therefore mobile internet-based learning is considered to be an effective way of learning during coronavirus pandemic in Indonesia.

Keywords: *Mobile, Internet, Learning, Improve, Speaking*

Introduction

Coronavirus pandemic has affected the communities of the world. People are not only physically suffered but they also suffered psychologically. There is a lot of worry and nervousness about having direct contact with others. This situation forced most people to work from home. There is even a strong and urgent precaution given by the government so that all people stay inside their house. In the education sector, this phenomenon certainly has a strong impact on how the learning process should be conducted. The quick solution is by utilizing online learning as what has been suggested by the Indonesian education authority.

In whatever situation teachers are expected to be able to work professionally, and they should be able to create a conducive learning atmosphere (Mantra, Handayani, Suwandi, 2019). Although teachers are trained to be professional, It should be acknowledged that there is only a few teachers and lecturers are capable of carrying out the lesson through an online system. Consequently some doubt of being successful to enrich students' knowledge during the coronavirus pandemic. Being aware

of the lack of knowledge of online learning, teachers come with a sudden solution to utilize mobile phones as a learning device as it has many features and ready use applications can be used as a learning medium. Based on the observation, it seems students and teachers enjoy conducting the lesson through mobile internet-based learning.

The present study tries to figure the effectiveness of mobile internet-based learning in teaching speaking as informal interaction as it usually this lesson is practiced directly in the classroom. Although the coronavirus pandemic occurred, the learning process of speaking for informal interaction should be conducted effectively, it is not merely for the seek of curriculum completion but is also for the continual improvement of students' speaking skill as it has been known that speaking skill is one of the most important language skill. Therefore, it should be continually learned by the students to be able to communicate effectively in English.

Without speaking, students cannot communicate with others inside or outside the classroom. Mantra (20016) states that getting students to speak in class sometimes is not an

easy task to do. Teachers have to be able to create a good learning atmosphere for students to take part in learning speaking. Moreover, students' abilities should be assessed properly so that appropriate actions can be taken by the teachers for improvement (Widiastuti, Mukminatien, Prayogo, & Irawati, 2020). In a good class atmosphere, students often take part freely and are active if the teachers give them a suitable topic and task. Carter & Nunan (2001) argues that to most people, mastering the art of speaking is the most important aspect of learning a foreign language. Moreover, students' success is measured in terms of their ability to carry out a conversation both inside and outside the classroom.

Mastering speaking skill in English is a priority for many foreign language learning. Moreover, speaking skill is an important part of the curriculum in language teaching, and this makes them an important object of teaching (Burns, & Claire, 2003). It means that students have to speak in English well to complete their achievements. states that speaking is a heightened version of familiar day-to-day interaction. Moreover, Burns, & Claire (2003) describe that it can be used by the students for making interactions with others. The interactions come from communication between the speaker and the listener which has a certain purpose in social interactions. Through speaking, people can convey their ideas, opinion, thought, feeling, suggestions, advice, etc to other people.

Speaking is a part of daily life that people take for granted to express themselves to others. Speaking is used by people to communicate with the other to share information in some different form (Burns & Claire, 2003). Most of the speaking activities are in the form of face-to-face dialogue. Therefore, it involves interaction between the speakers during the communication. Moreover, it involves an understanding between the speakers during the communication. Mantra

&Maba (2008) further emphasizes that students tend to get something done, explore ideas, working out some aspect of the world simply by communicating with other students or other people. Therefore it is highly important to improve students' speaking skill although coronavirus pandemic has disadvantaged students from face to face learning. As an effort to continually enhance students' speaking skill for informal interaction, therefore the clinical action was undertaken with the hope it could improve students' speaking skill. Through various efforts of setting up the lesson, the online speaking classes could be conducted effectively during the coronavirus pandemic.

Many studies have proved that online learning in language teaching was successfully conducted to develop students' language competence. Students found that they learn more independently and creatively as a result students become more productive in learning. Although there is still some doubt on how students actually learn as very limited supervision by the teachers. Some teachers presumed that students are more willing to spending their time using their mobile phones for other purposes instead of learning. Therefore this study is considered to be important to carry out to find out the effectiveness of mobile internet-based learning to improve students' speaking for informal interaction.

Research Methods

This study made use of an online-based action research design. This design was chosen since students have to study from home during coronavirus breakout in Bali. The only that students can still enjoy the learning process is through an online system by utilizing mobile devices. In collecting the data, two kinds of tests were employed, they were, initial reflection or pre-test and reflection or post-test. Hence, the initial reflection or pre-test (IR) was intended to evaluate the pre-existing speaking skill of the students, while reflection or post-test (R) was

meant to reveal the expected increase in the students' speaking skill after the subjects have been taught through mobile internet-based learning.

In this present study, the teaching-learning processes were divided into two cycles in which each cycle consisted of four interconnected sessions. This study was held to find out the effectiveness of teaching speaking skill through mobile internet-based learning. The degree of the effectiveness of teaching speaking through mobile internet-based learning was figured out by comparing the mean score gained by the students with their corresponding mean scores of the reflections or post-test of both first cycle and second cycle. All assessment of the speaking skill should be properly assessed to establish appropriate data regarding students' abilities (Widiastuti, 2017). The most required data to answer the research question under study was gathered through administering pre-test and post-test, some supporting data were collected through administering a questionnaire to the subjects under study. Therefore, there were three kinds of raw scores obtained for the present action study, they were, (1) scores showing the subjects' pre-existing speaking skill, (2) scores showing the subjects' progress achievement in speaking, (3) scores showing the subjects' changing learning behaviors.

Results and Discussion

The data analysis shed a clear light on the establishment of the finding of present class action study which investigated the effectiveness of folklore in improving speaking of the students under study. The mean score of initial reflection or pre-test scores obtained by the students in speaking pointed out the mean figure of 4.50. This mean figure clearly showed that the pre-existing linguistic competence of the students was low. The result of the data analysis of the reflection scores in the first cycle showed the increasing mean figures of 5.50, and 6.50. The mean figures obtained by the students

of each session in the first cycle were much higher than the mean figure of the initial reflection score. The grand mean figure of the reflection or post-test scores obtained by subjects under study was much higher than the mean figure of the initial reflection score. The resulted grand mean figure for the first cycle was 6.00. This grand mean figure convincing discovered much higher than the mean figure of the initial reflection scores. This grand mean figure convincing by revealing that the teaching speaking skill to the students through mobile internet-based learning.

The results of the data analysis of the reflection or post-test score obtained by the students in the second cycle turned out to show the progressing mean figures of 7.50, and 8.50. Compared with the mean figure of initial reflection scores, the mean figure obtained by the students for each session was convincingly much higher than the initial reflection mean figure. The grand mean figure of the reflection or post-test score obtained by the subjects in the second cycle was 8.00. This significant difference mean figure suggested that the teaching of speaking skill in the second cycle through mobile internet-based learning could be remarked to be more effective than the first cycle. This was because the second cycle was a revised version of the first cycle, in that the teaching scenarios in the second cycle were accordingly revised by taking into account the weaknesses found out in the first cycle.

The results of the analysis of the questionnaire items showed the comparative percentages of 70%, 25%, 5 % and 0 % for items A, B, C, and D respectively. The results of the comparative percentage figures obtained for the present class study proved that the subjects' learning behavior changed positively, that was their attitude and motivation heightened significantly. The findings of this study were believed to have rather limited validity as well as reliability. This was because, during the undertaking of this study, there were some compounding variables which were not simply

controlled. Therefore these research findings applied only to the subjects under study. In summary, the findings that the researcher presented above showed that mobile internet-based learning was considered to be effective to improve the speaking skill of the students

There are many reasons why speaking is the best of the communication channels. It is not always used, largely because people are afraid of their inexperience and inability to speak well. Nevertheless, practice and study can provide the skill needed to use this most direct path into the minds of others. It is worth the effort to become an effective speaker. The result of continuous speaking is that the peoples' minds become clogged with information. They are thinking over one fact, when the next one comes in, and then the next. There is no time to absorb, and soon the peoples' minds are drowning in information.

According to Widiastuti (2017), there are three main points should be taken under careful consideration by the teachers during the learning process to create meaningful learning. Firstly, the lesson should design and conduct meaningfully by utilizing various forms of assignments. Secondly, assessment should be conducted formatively to allow students to know their ability and actively improve their learning achievement. Thirdly, teachers should continually provide feedback to allow students to know how to improve their learning achievement. These three characteristics of successful learning can be intensively carried through mobile internet-based learning. Teachers can directly provide feedback to the students through various application platforms available on their mobile phone which they agreed upon the learning of speaking.

Moreover, mobile internet-based learning enables teachers to create many activities for speaking assignments to create an innovative and enjoyable teaching-learning process of speaking. Therefore, the students become continually encouraged to practice their ability in speaking. The practice of speaking

using mobile internet-based learning also found to be more effective for shy students in speaking. Students found the speaking activities more enjoyable and diminishing their feeling of being shy. This can be understood that speaking practice through mobile internet-based learning to avoid direct contact or face to face interaction. This finding is a surprising phenomenon as naturally, most people would rather speak through face to face interactions.

This study proved that online learning improved students' learning achievement in speaking and also proved that online learning encourages shy students to speak. Therefore online learning basically can be utilized to overcome students who feel shy to speak in front of others. Then eventually their confidence to speak in front of others will be developed and after a while, they may become a confident speaker.

Conclusions

Speaking skill in a foreign language has often been viewed as the most important skill. It is an important part of the curriculum in language teaching. Therefore in whatever situation, teachers should continually make an effort to create meaningful activities for speaking exercises. During the coronavirus pandemic, teachers in Bali are encouraged to conduct online learning to teach from home. Since they are familiar with the mobile phone, most teachers conducted the learning process through a mobile phone. Similarly, this study was conducted through mobile internet-based learning and prove that the learning of speaking is sufficiently successful. The success of the learning process can be seen from the increasing main figured obtained in this study. Moreover, this study also reveals mobile internet-based learning may ease students from being shy to speak in English.

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BIO-LINGUISTICS ACQUISITION OF BALINESE MEDICINAL PLANTS BY BIOLOGY STUDENTS

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ABSTRACT

Plants are the closest nature of human life. People basically cannot live well without plants, therefore generally people have some knowledge about plants which are familiar with their daily life. This study was intended to analyze the bio-linguistics acquisition of Balinese medicinal plants by biology students. Medicinal plants are not something new for the community but they are included in their local wisdom. This study revealed that the benefits of medicinal properties for health have been known and used by the community widely. Furthermore, the present study also revealed that Biology students have sufficient knowledge of linguistic terminology on Balinese medicinal plants. Therefore further learning processes should be intensified to enhance their comprehension of the Balinese medicinal plants.

Keywords: Bio-linguistics, Acquisition, Medicinal Plants

Introduction

Medicinal plants have known to have some beneficial advantages in keeping the community in good health. Treatment using medicinal plants has been happening for years. Traditionally using plants for the sake of curing some illnesses among the Balinese society is a part of daily routine. All Indonesian cooking ingredients mostly have some kind of medicinal properties. Therefore, it can be said that the use of medicinal plants become a natural way of Balinese life.

Balinese people have long known and used medicinal plants as an effort to naturally overcome health problems. Most of their knowledge about medicinal plants based on experience and skills that have been passed down from generation to generation (Adiputra, 2011). The use of natural remedies as a traditional medicine in Bali has been carried out by their ancestors for centuries. The use of traditional medicine in general is considered safer than the use of modern medicine as they believed in chemical-free medicine. Consequently, various types of family medicinal gardens were established in order the plants can easily found (Sujarwo, et al. 2015).

Bali is one island in Indonesia that has many types of family medicinal plants. Their uses however are not yet all known exactly (Adiputra, 2018). Most Balinese plants are

discussed in the Balinese palm leaves book which is known as 'lontar'. In some areas of Bali, the books are considered too sacred in which only certain people are allowed to read them. Moreover, the books are written in Balinese manuscripts which are different than roman manuscripts. This added to the difficulty in understanding the content of the manuscripts. There are not many younger generation can read the books properly due to the lack of knowledge of Balinese writing.

Although there is some *lontar* (Balinese palm books) have translated, however, there is still a lack of interest for young Balinese to read them. This phenomenon has occurred for a while. In terms of linguistics, the Balinese books have many linguistics features that should be comprehended by all Balinese for the sake of their better life. Moreover, many Balinese books containing knowledge about medicinal plants, consequently, they are rich in bio-linguistics features. Most of the plants are still growing in Bali. Therefore, this study would provide some insight into young Balinese knowledge of Balinese bio-linguistics medicinal plants. This is because medicinal plants are not merely for medicinal purpose but they may attract people to see and eventually as a part of the tourism industry (Sutomo, 2007)

Along with the development of modern medicine, the knowledge of local wisdom, especially about medicinal plants has begun to

fade. At present, the use of traditional medicines has not been widely practiced by the people in Bali, especially among the town community. Yet as we know today many medicinal products use herbal ingredients or come from nature and are pegged at a high price. Advances in modern technology and culture have led to a decline in knowledge of local knowledge of medicinal plants, especially among young people (Mitra, et al. 2007). An instant lifestyle makes local knowledge of medicinal plants considered not very important because it is considered impractical. As a result, medicinal plant resources are soon no longer preserved and well maintained. The loss of these values causes problems namely morals, ethics, health, and the environment. This is because there is no balance between technological progress and local knowledge. People should have sufficient knowledge about medicinal plants because they are very useful for our health (Nurrani 2013)

The problems that have been raised certainly cannot be separated from the lack of education on local wisdom about medicinal plants. One of the causes of the decline in knowledge of local knowledge of medicinal plants is the lack of early recognition of medicinal plants in educational institutions that should start from basic education. This problem is supported by the lack of facilities for students who live in village areas to become obstacles to get closer and get to know the environment. Unlike students who live in rural areas where the surrounding environment is still fairly natural. Students who live in villages have more opportunities to get closer and get to know the environment than students who live in town (Rachmi, 2014).

Although students have more opportunities to get to know the environment, it is possible that the knowledge of local wisdom about medicinal will be lost if not maintained. Likewise, with students who live in the village, local wisdom knowledge of medicinal plants is important to maintain because, with local knowledge, students will appreciate the environment more and learn to use and preserve existing resources. These problems become a challenge for educators, especially in the field of biology education. As the curriculum develops, the curriculum emphasizes educators to take an environmental approach, so students are able to apply what they have learned to their daily lives.

Based on this background, this study is considered important because the knowledge about local medicinal should be enhanced (Yulianto, 2016). Moreover, we all know that the role of education is very important in maintaining local knowledge of knowledge in students. As prospective teachers, we must apply the importance of local wisdom knowledge to students. Knowledge of local wisdom, especially medicinal plants, can raise student awareness to preserve their environment, besides learning will be more interpreted because students will apply it in their daily lives. It is necessary to analyze to determine the condition of knowledge of local knowledge of medicinal plants in current students.

Research Method

This study would be dealt with uncovering the biolinguistics acquisition of Balinese medicinal plants by biology students used an ex post facto research design with descriptive analysis. The ex post facto research design was used in this study because the bio-linguistics acquisition of Balinese medicinal plants by biology pre-service teachers as the research variable had already taken place before the undertaking of this study. Moreover, the Pre-service teachers had learned the names of plants since they pursued the study program. The data were collected by utilizing a valid and reliable instrument in the form of productive essay tests in which are asked to mention and describe their knowledge about Balinese Medicinal plants.

Finding And Discussion

Medicinal plants or medicinal trees are all types of plants that are known to contain beneficial and nutritious compounds to prevent, alleviate or cure a disease. Utilization of plants as an herbal medicine has been done since along time ago. In ancient times humans were very dependent on plants that are known to have an effect as a drug to treat various types of diseases in humans. In Bali, our ancestors have long used certain plants as medicine. Hundreds of types of medicinal plants there are many around us, maybe even we are very familiar with the plants. But many of us do not know the benefits and benefits of treatment.

In order to bring the medicinal plants closer to daily life, the Balinese, various types

of family medicine garden are built which add knowledge about the plants and create a better public health. Bali is one island that has hundreds of types of medicinal plants that are not yet all known their benefits and uses. Until now, therefore Balinese medicinal plants have not been used optimally. To improve the quality of family medicinal plants need cooperation

It is important to have strong participation from the government, society and the role of the private sector so that medicinal plants can also be used for the herbal medicine industry as well as to improve the family's economy. Public knowledge about medicinal plants that are useful for promoting, preventive, curative, rehabilitative and to beautify themselves, has been used since the days of our ancestors before modern medical treatment. This knowledge they get downward.

In addition to the discussion related to the benefits of Balinese medicinal plants, the present study particularly dealt with assessing the bio-linguistics acquisition of Balinese medicinal plants through administrating several written questions. A used ex-post facto research design with descriptive analysis was employed to establish reliable findings. The data which were presented in this chapter showed the results of the students' bio-linguistics acquisition of Balinese medicinal plants was sufficiently achieved, however students' mainly capable of mentioning common medicinal plants used in their families.

Below is the list of plants that are mostly acquired by the students in this study.

1. Adas	1. <i>Foeniculum vulgari</i>
2. Ambengan	2. <i>Imperata cylindrica L.</i>
3. Apel	3. <i>Pyrus malus L.</i>
Gadang	4. <i>Piper betel</i>
4. Base	5. <i>Piper crocatum</i>
5. Base barak	6. <i>Pluchea indica Less</i>
6. Beluntas	7. <i>Cocos nucifera L</i>
7. Nyuh	8. <i>Callophyllum</i>
8. Camplung	<i>inophyllum</i>
9. Canging	9. <i>Erythrina fusca</i>
10. Cekuh	10. <i>Kaemferia galanga L.</i>
11. Celagi	11. <i>Tamarinda indica L.</i>
12. Daluman	12. <i>Cyclea barbara M.</i>
13. Dapdap	13. <i>Erythrina variegata L.</i>
14. Don Dewa	14. <i>Gynura segetum Lour</i>
15. Don Temen	15. <i>Grathophyllum pictum</i>

16. Gatep	16. <i>Quassia indica Gartn</i>
17. Gedang	17. <i>Carica papaya L.</i>
18. Gemitir	18. <i>Tagetes erecta</i>
19. Intaran	19. <i>Azadirachta indica Juss</i>
20. Isen	20. <i>Alpina galanga L.</i>
21. Isep Nanah	21. <i>Euphorbia thymifolia L.</i>
22. Jae	22. <i>Jingiber officinale</i>
23. Jangar	<i>Rose</i>
Ulam	23. <i>Eugenia polyantha W.</i>
24. Jangu	24. <i>Acorus calamus</i>
25. Jepun	25. <i>Plumeria acuminata</i>
26. Juwet	26. <i>Syzygium cuminii M.</i>
27. Juwuk	27. <i>Citrus sp.</i>
Nipis	28. <i>Pithecellobium dulce</i>
28. Keluncing	29. <i>Allium sativum L.</i>
29. Kesuna	30. <i>Vitex trifolia L.</i>
30. Lili Gundi	31. <i>Phyllanthus acidus L</i>
31. Cerme	32. <i>Zingiber cassumianar</i>
32. Gamongan	33. <i>Citrus vulgaris L.</i>
33. Limo	34. <i>Myristica fragrans</i>
34. Pala	35. <i>Melaleuca leucadendra</i>
35. Ketumbah	<i>L.</i>
36. Liligundi	36. <i>Vitex trifolia L.</i>
37. Cengkeh	37. <i>Syzygium aromaticum</i>
38. Mahkota	38. <i>Phaleria macrocarpa</i>
Dewa	39. <i>Orthosiphon aristatus</i>
39. Kumis	40. <i>Apium graveolens</i>
kucing	41. <i>Pisidium guajava</i>
40. Seledri	42. <i>Morinda citrifolia</i>
41. Sotong	43. <i>Cinnamomum verum</i>
42. Tibah	44. <i>Momordica charantia L</i>
43. Kayu manis	45. <i>Santalum album L</i>
44. Paya	46. <i>Ficus septica</i>
45. Cendana	47. <i>Zingiber purpureum</i>
46. Awar-awar	Roxb
47. Bangle	48. <i>Cryptocarya massoia</i>
48. Masui	49. <i>Blumea balsamifera L.</i>
49. Sembung	50. <i>Switenia mahgoni B.</i>
50. Mahoni	

The final data were analyzed by using norm-referenced measures of five standard values, showing excellent, good, sufficient, insufficient and poor achievement of bio-linguistics acquisition of Balinese medicinal plants. The first thing that should be figured out was the average score or the mean score (M) and the standard deviation (SD) of the raw score. The results of the test that were obtained by the samples could be clearly seen that students' acquisition of bio-linguistics acquisition of Balinese medicinal plants was sufficient. This means that the students

were sufficient knows about bio-linguistics of Balinese medicinal plants

The finding of this study was in the form of the converted scorer of norm-referenced measure five standard values which showing excellent, good, sufficient, insufficient and poor achievement of bio-linguistics acquisition of Balinese medicinal plants. Based on the data analysis, (1) 6% or 3 of samples under study got excellent achievement, (2) 24% or 12 of samples under study got good achievement, (3) 44% or 22 of the samples under study obtained sufficient achievement, (4) 20% or 10 of samples under study got the insufficient achievement, and (5) 6% or 3 of samples under study got the poor achievement.

The result of the data showed the samples in this study showed sufficient achievement in the bio-linguistics acquisition of Balinese medicinal plants. There were 74% of students under study were succeeded and 26% were failed. The samples' failure might be caused by several factors, as most of them had less attention in learning biolinguistics acquisition of Balinese medicinal plants. Some students failed in getting higher ability in the bio-linguistics acquisition of Balinese medicinal plants are due to their poor awareness of the use of the plants for medicinal purposes. They simply do not try to understand because modern medicine is more preferably used.

On the other hand, 74% of students were a success in the bio-linguistics acquisition of Balinese medicinal plants were due to their high exposure to the use of Balinese plants in their families. They mainly had a good understanding of the medicinal properties of the plants and they fluently mentioned the Balinese names of the plants. This knowledge has to be nurtured in order that they can develop their understanding and possibly able to use some of the plants for alternative remedies when they experience some. The local authorities may become more interested in developing to grow the plants for educational and medical purposes if more people are interested to use them as alternative remedies. Therefore, with the government began to develop medicinal plants, hoping to reduce the triggering factors for the emergence of degenerative diseases and to accelerate the healing process for people who are sick, natural medicine remains the choice of the community.

Conclusion

This study dealt with assessing the bio-linguistics acquisition of Balinese medicinal plants through a number of written questions to students who are going to take part in their teaching practice in junior and senior high schools. The result of the data analysis was calculated by using a norm-referenced measure of five standard values, which were excellent, good, sufficient, insufficient and poor. Based on the data analysis, (1) 6% of samples under study got the excellent achievement, (2) 24% of samples under study got a good achievement, (3) 44% of the samples under study got sufficient achievement, (4) 20% of samples under study got the insufficient achievement, and (5) 6% of samples under study obtained poor achievement.

The result of the data showed the samples in this study showed sufficient achievement in the bio-linguistics acquisition of Balinese medicinal plants. There were 74% of students were succeeded and 26% were having low achievement. It meant some students still had difficulties in acquiring bio-linguistics of Balinese medicinal plants due to their poor interest and lack of exposure to the use of Balinese medicinal plants.

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PARADOX AND TRANSFORMATION

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ABSTRACT

The English term “paradox” is suggestive of a particular Indigenous value of perceiving and understanding in terms of balancing opposites. Paradox thinking points to a series of concepts central to traditional Navajo epistemology and ontology: complementarity, dynamic movement, cyclical balance, and transformation. This matrix of traditional wisdom is positioned in relation to western empiricism – especially the latter’s expression as problem-solving and critical thinking methodologies. It is suggested that one aspect of transformation involves re-visioning the relationship between these two cognitive styles.

Keywords : Paradox, Transformation

Introduction

What would a holistic relationship between Indigenous consciousness and western empiricism look like? What opportunities can we create for Indigenous students to fully value their traditions while working in western educational contexts? To open up these questions, we will examine some of the significant differences and active relationships between the value systems of Eurocentric and Indigenous peoples. These differences are often articulated; however, the *relationships* between these world views are often unknown and unexpressed.

We will use Indigenous terminology to illuminate these relationships, primarily through the Navajo language of the *Dine* (Navajo) people of the American Southwest. This Athabaskan language uses the signifier *saah naaghai bikeh hozhoon* (*SNBH*), which has been used by Navajos for countless generations to conceptualize the relationships of the parts and the whole, and to understand these complex, transformative relationships. At the core of our inquiry will be an explication of how thinking in terms of paradox (rather than polarities) can lead to transformation, both inner and outer. Transformation as we mean it manifests at many levels – cognitive, physical, societal and spiritual.

Although the term *saah naaghai bikeh hozhoon* has been used extensively by the Navajo people, this nexus of concepts can be applied to many other indigenous peoples, through the use of

traditional consciousness and language. One contemporary application of this transformative process is to re-vision and regenerate core educational methodologies. Western education, as practiced in the United States, is geared to inculcate and maintain the values of the dominant Eurocentric society. These values have, to a great extent, superseded the traditional values of Indigenous peoples, leading to a confusing situation within Indigenous cultures. It is our hope that some of the issues and ideas we raise here will contribute to the formulation of new educational models that are supportive of traditional Indigenous consciousness.

Research Method

This paper has been written by two Indigenous knowledge holders and scholars and one non-Indigenous scholar who is a specialist in the quantum theory works of David Bohm. As is often the case, papers written on Indigenous ways of knowing do not fit easily into Eurocentric frameworks of research design and evaluation. Indigenous wisdom is based on knowledge of interconnections of all things, which is significantly different from western academic and scientific theories of separatism and individual components. Indigenous languages form the foundation of Indigenous knowledge and these languages, such as *Dine Bizaad* (Navajo language) are composed of inherent interrelationships and paradox, along with a strong focus on continuous movement

and dynamic process, which cannot be easily nor adequately transferred into English.

The closest we can come to describing our Indigenous research methodology in academic terms is probably a combination of several research designs, notably a participative framework, based on phenomenological research. Participatory research “offers a voice to participants” (the authors and their community) “and gives them the ability to form an agenda for reform” (Creswell, 2013). This type of research is community based and action oriented. In the case of this paper, we have presented an awareness of Indigenous epistemology and transformative interrelational explanations. As we say, one aspect of this paper is to reveal and assign value to what we might call Indigenous common sense, or Indigenous wisdom, leading to regeneration of core traditional values in the modern world.

Phenomenological research is relevant to this paper since “advocacy/participatory researchers engage participants as active contributors to the research, it is a collaborative experience.” (Kemmis and Wilkinson, 1998)). In this case, we are the participatory researchers, describing life experiences in the context of Indigenous traditional knowledge.

“Phenomenology is an approach to qualitative research that focuses on the commonality of a lived experience within a particular group. The fundamental goal of the approach is to arrive at a description of the nature of the particular phenomenon (Creswell, 2013). Typically, interviews are conducted with a group of individuals who have first-hand knowledge of an event, situation or experience.” For this paper we are the group of individuals as well as the academic authors, who, combined, have the first-hand knowledge and lived experience among the Navajo community, and the world of quantum physics.

Discussion

Paradox: Balancing the Opposites

Webster’s Seventh Collegiate Dictionary defines paradox as “a statement that is seemingly contradictory or opposed to common sense, and yet is perhaps true.” For our purposes we would add, not only a “statement,” but also a configuration of circumstances, dynamic states of nature, and any activities that occur within these contexts. Each of these situations may

manifest paradox, in which meaning is “opposed to common sense, yet perhaps true.” Etymologically, paradox derives from *para* (before, alongside of, beyond) and *dokien* (to think). Thus, we can think of paradox as a way of perceiving that operates before, in tandem with, or beyond our “normal” way of thinking.

It is worth noting that “common sense” and “normal” in these definitions are tacitly those of the Greek and Latin forebears of modern Western culture. Indigenous “common sense,” however, is often quite different from its Western correlate. Nonetheless, it is the case that via colonization and education, many indigenous cultures have absorbed Western notions of “common sense.” One aspect of this paper is to reveal and assign value to what we might call Indigenous common sense, or Indigenous wisdom, leading to regeneration of core traditional values in the modern world.

Paradox

Often one is faced with a situation which at first glance seems to be contradictory or in the realm of polar opposites. Further inspection may suggest that rather than a polarity, the situation is paradoxical. To illustrate this we can look at the concept of violence vs. non-violence, as experienced by many Native peoples of the United States.

During the “Indian Wars” of nineteenth-century America, a band of Cheyenne under Chief Black Kettle was massacred at Sand Creek, near present-day Denver, Colorado. Most of the people in the Cheyenne encampment were elders, women and children. Although Chief Black Kettle raised a white flag of peace, the militia attacked with cannons, rifles, swords, and knives, killing most of the Cheyenne and leaving the remainder dying or mutilated.

Similar historical traumas, such as the Navajo Long Walk and the Cherokee Trail of Tears, have occurred over time, involving most Indigenous peoples around the world. One thread that runs through all these horrific experiences is: how does one respond when faced with this kind of violence? When faced with brutal annihilation we may veer to one of two opposites: either respond with further violence or respond with submissive non-violence. Though these may be natural responses, the Western mind tends to

conceptualize and freeze them into unrelated polar opposites.

By contrast, Navajos have often positioned seeming opposites in a kind of continuum, articulated through signifiers such as *saah naaghai* (negative) and *bikeh hozhoon* (positive). These signifiers are not just abstract, philosophical concepts, but point to living actualities. From a superficial perspective one might say negative and positive are polar opposites, but from a Navajo point of view they are *intrinsically interrelated*, similar to an electrical extension cord with negative (male) and positive (female) charges. Is it possible, then, that violence and non-violence are inherently related, not “opposites”? This is the beginning of paradox thinking.

Most people would agree that it is a natural human response to protect one’s family and community from harm – to fight back – even when one wishes to live in peace. But how are we to keep the momentary, natural impulse to fight from becoming a black heart, that is, a habit or predisposition toward violence? This question applies both at the individual level, and also at the cultural level, especially when being on a “war footing” becomes endemic to cultural functioning. Values can create a society rooted in wisdom, happiness, peace and balance, what Navajos would call *hozhoon*. By the same token, values can create a society rooted in selfishness and greed, control and ignorance, what Navajos might call *tsi’ a deesdei’*- (the mind of society has gone astray), which can culminate in *tsi’ da ol dah* (living the imbalances of life in a state of chaos).

Whether an indigenous group was at peace or on a war footing, the people tried to live through an acknowledged dynamic balance. Long before the formation of the United States’ federally-created tribal government, Navajos had a purely traditional and centralized form of government, called *Naachiid*. This was composed of *Hashke Naat’a* and *Hozhooji Naat’a*, war leaders and peace leaders. During wartime the war leaders were somewhat restrained by the peace leaders and they also had an inherent personal responsibility to create a balance. During peacetime the peace leaders had more influence over matters. They also had an inherent responsibility to maintain balance, which would include taking up arms to defend themselves when necessary. Even though they were

providing leadership during peacetime, they had to look ahead for the survival of the next generation.

This notion of balance is similar for many indigenous peoples. The indigenous concept of striving towards dynamic balance usually guided society. This can be further explained as the balance of the male energies (negative) and female energies (positive). In every situation, the complexities of dynamic balance allow things to continue to move forward, or as Navajos would say “yee as’ah naaghai.”

Polarity

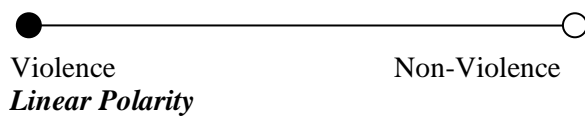
The questions raised here about violence/non-violence, male/female, and negative/positive provide an opportunity to highlight some of the mostly unspoken yet fundamental assumptions of the Eurocentric paradigm. Unlike Indigenous ways of knowing that occur largely through a cyclical paradigm, Eurocentric epistemology is usually based on a linear perspective, which allows for a certain way of organizing thought processes and the articulation of such processes. With a linear perspective, for example, one can discuss such concepts as progression and time. This allows for a world configured in terms of beginning, middle and end, or, said another way, past, present and into the future.

The Eurocentric linear paradigm often categorizes things in terms of opposites and discrete parts with little or no emphasis on the relationship of the parts. This perspective is rooted in the historical development of Cartesian philosophy, which makes up the knowledge base of most western-centered education systems across the world. Indeed, western culture follows the lead of western science. If Cartesian philosophy is the foundation of much western science, then this philosophical outlook filters into the culture, structuring the perceptions of the average person at a tacit and unrecognized level.

The linear paradigm is uniquely and appropriately expressed through the English language and its linguistic relatives, the Latin-based languages. The grammatical organization of English is largely noun-based, and lends itself to linear thinking as well as to oppositional concepts such as polarity. Indigenous languages, on the other hand, are largely verb-based and relationally organized.

Polarity-based thinking, for example, will typically conceive the seeming opposites of

good and bad as mutually exclusive, with little or no intervening gradation. Something is usually either good or bad. This polarized division has created an underlying set of values, often resulting in a blame-based society where “I am right and everyone else is wrong.” The manifestation of this kind of polarized finger-pointing has been used by countless governments to justify violence and acts of aggression.



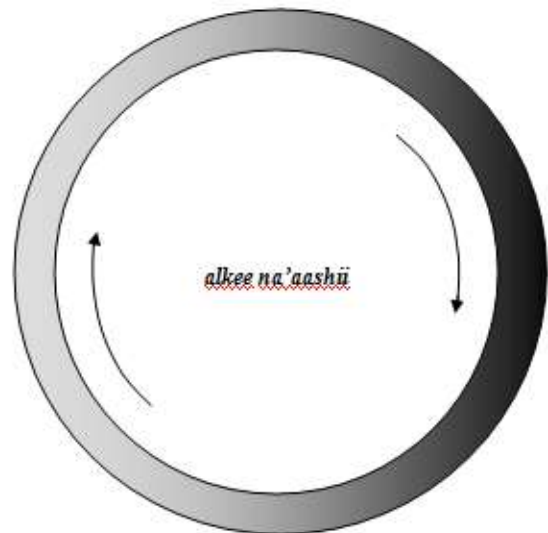
Continuum

The concept of continuum is often visualized as a way to illustrate polarity. From a Eurocentric perspective, a continuum is most often linear with violence on one end and non-violence on the other, as illustrated above. What may at first glance seem to be oppositional, can however be seen from an indigenous perspective as a *merging* continuum, understood as a dynamic complementarity of life.



Merging Continuum

If one takes each end of the continuum line above and pulls each one around to the top or the bottom, one will create a circle, a *cyclical* continuum. From the indigenous perspective, this connection of both ends of the *merging* continuum turns the linear structure into cyclical movement. This in itself creates a different epistemological and ontological consciousness, one which reflects natural processes. For example, *alkee na'aashii*, translated as “one follows the other,” implies that a dynamic equilibrium emerges, as illustrated by the arrows in the following diagram. There is no hierarchy or polarity in this order, similar to the unified cosmic process inherent in the natural cycles of night and day. Dynamic equilibrium is innate; it emerges, becoming visible and clear to the human consciousness.

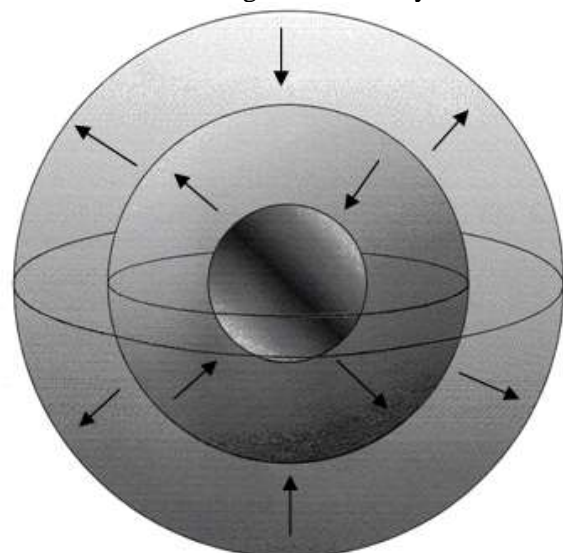


Cyclical Continuum

Alkee na'aashii cannot be considered as a polarity or linear continuum. If the circle is broken and reverts into a continuum with left and right poles, then the polarity re-emerges and you no longer have the unity as indicated through *alkee na'aashii*.

Values as an Ordered Continuum

We can take this evolution from polarity to *alkee na'aashii* one step further by introducing *values*. So far we have brought out concepts of increasing complexity but have not explicitly addressed the issue of value. The following diagram shows one way of indicating an ordered continuum in which some things have higher value than other things – a hierarchy of value.



Enfolding-Unfolding Spheres

The largest (outermost) of the three spheres indicates the entirety – the wholeness – of traditional Indigenous knowledge. The middle sphere illustrates the fullness of the traditional knowledge being somewhat narrowed down but still retaining the dynamic flexibility of the outer sphere. The innermost sphere represents highly specific applied knowledge (polarity-based) that is nonetheless governed by the outer and middle spheres. The largest sphere has the most value to Indigenous peoples because it holds the greatest wisdom, intelligence and knowledge. To attribute this level of knowledge, as is often done in western cultures, to only the smaller inner sphere of specific applied knowledge, is breaking the natural holistic order and turning it upside down. (Please remember – these are not three concentric circles, they are three-dimensional spheres nested within one another). When the relationship between these various levels of knowing is functioning coherently, each level is continually communicating with the other, from “higher” to “lower” and “lower” to “higher.” This movement of information is similar to what physicist David Bohm describes as a process of *enfoldment* and *unfoldment*. (Bohm 2003, pp. 78-139 passim)

Complementarity

Often the concept of polarity is discussed in terms of dialectical tensions. Yet even this term illustrates the difference in thinking between Eurocentric and Indigenous, as seen through a Navajo perspective, and explained through the term *alkee na'aashii* (one follows the other), implying continuous motion without anything coming first or a second. This is similar to the Chinese yin/yang symbol illustrating an Eastern view of interrelationship, which, like Navajo, is not oppositional thinking, but rather a system of complementarities.

Dynamic Movement

The Navajo term, *alkee na'aashii*, expresses dynamic unbroken movement. This is not necessarily the case with western concepts of complementarity. With full complementarity, as defined by Navajo, there is neither hierarchy nor polarity. The emphasis is on perpetual *movement between the two* (the “two” being what appear on the surface as polar extremes, for instance night and day, violence and non-violence). Both energies are needed for dynamic

movement. *In the unity of the dynamic movement, the polarities naturally disappear.*

The Navajo world accepts diverse ways of knowing in the sense that each culture holds its own relevant ways of knowing as expressed through its characteristics and lifeways, articulated through spiritual songs. Like the Navajo, most Indigenous people are spiritually grounded in specific geophysical and celestial environments. Navajo cosmology is centered within their Four Sacred Mountains. Star constellations and other dynamically moving celestial objects visible from this location provide the natural holographic order underlying Navajo cosmography. This order is indicated by the largest, outermost sphere in the diagram of Enfolding-Unfolding Spheres. The dynamic movement of this order – referred to by the Navajo term *nanit'a*, is also hinted at by David Bohm's term *holomovement* (Bohm 2003, pp. 78-80; 131-136).

Geophysical and celestial location, as well as consciousness of all living things, are intrinsically related with everything in the Navajo cosmos. The underlying knowing, the spiritual matrix - what Navajos would call *bitsi silei* – that provides the preceding organizing process for the Navajo world view, is the essence expressed through *sa'ah naaghai bikeh hozhoon*. This is the self-organizing central process that provides unity, coherence and life. It is the spiritual matrix that binds the human with all cosmic forces and energy.

Implicit in *SNBH* is a cosmic negative and positive complementarity. Where the two energies meet, a central dynamic force is constantly manifesting, where equilibrium and dynamic movement are continuously generated and regenerated. Navajos refer to this central life-giving process as *as'ah naaghai*. Navajo traditionalists say the relationship between two polarities provides the continuous manifestation of dynamic balance. One cannot exist without the other. They depend on one another through interrelationship, much the same as electromagnetic forces require both negative and positive charges.

Balance (Teaching from the stick)

How does one come to understand and live this indigenous balance? To live in terms of balance generates a different engagement than that which flows from western dependence on

prediction and control. One way to simplify or personalize the interdependent relationship of balance is in terms of the human walking process. In order to create and maintain the necessary central balance inherent in the human walking process, one needs to use a left leg and right leg in continuous succession. This example may seem simplistic, but it points to a profound cosmic natural law. Such balancing of opposites is harmonic, a dynamic gift of life.

A further, perhaps more graphic example, is the dynamic energy required to balance an upright stick in the palm of the hand. This energy is expressed in Navajo as *yee as'aa naaghai* (the means by which dynamic movement manifests and maintains, allowing a continuous cyclical motion). The complex sensitivities and feelings required for this movement can be fully understood by *actually getting a stick* and performing this activity. The stick should be 3 to 4 feet in length (about 1 meter), with the diameter approximately like that of a broom stick. Once the stick is vertically balanced in the palm of the hand, the final step is to move around in a fairly large area and *maintain the balance* of the stick in the palm. The point of this exercise is to *feel* the teachings and the principles inherent in the concepts of dynamic balance as explained above. This exercise is so direct that for many people it will demonstrate more about *yee as'aa naaghai* than could any written work.

In doing this exercise, if you go astray from the balance, the stick will fall over. To create that balance, you have to do what you have to do (do it and find out!) You are in a different time and space each time you do this. Suddenly, dynamic movement and balance are inseparable. You are forced to work with the concrete realities of time and space. This kind of balance is radically different from western concepts of prediction and control. What kind of mind, whether it is individual or collective, can accommodate a world in which time and space is never the same twice? Can we educate, nurture, and support the kind of mind that apprehends and accommodates such a moving, dynamic world?

Wisdom

Indigenous wisdom has evolved from the teachings and principles inherent in such a moving, dynamic world. Wisdom does not just appear in a void. In the Indigenous way wisdom

is based on generations of knowledge, close observation of natural order, and a cultural and spiritual consciousness articulated through traditional holistic language. From this construct develops an indigenous consciousness specific to place and time. A highly complex cultural knowledge develops from this evolution, and from this knowledge, wisdom is generated. Wisdom becomes what Navajos would call "seeing the form," *jo'inigii bee nitsisikees doo bee njint'a*, which makes up an indigenous epistemological and ontological nexus.

As often happens, when we go back to the original Greek and Latin roots of English words, we find that the root is strikingly similar to the Indigenous meaning. In this case, one of the oldest meanings of wisdom comes from the Greek *aidos*, which means "appearance" or "form." Related to this concept of appearance or form is *idein*, a Greek word meaning "to see." By extension, when you put these meanings together, you can *begin to see the form*, see deeply how things are put together - very similar to the Navajo interpretation of wisdom, "seeing the form." From an indigenous perspective, values are a manifestation of this wisdom.

In order to deepen the understanding of values from an Indigenous view it may be helpful to briefly juxtapose the concept of values from a Eurocentric and an Indigenous perspective. Scientific theory works by taking things apart and analyzing them and reconstituting them. Western science, unlike indigenous ways of knowing, tends to divide information into discrete parts. This in itself becomes a value. It can be called fragmentation, compartmentalization or measurement.

Here it may be instructive to look at the root of the word "value," which comes from the Latin *valere*, meaning "to be strong, to be worth." David Bohm, who was deeply concerned with how values manifest in modern culture, comments,

"The word 'value' has the same root as 'valor' and 'valiant' - it means 'strong'... Whatever gets supreme value mobilizes the system [the individual or the society] and drives it with total energy." (Bohm 1996, p. 67)

Thus, both "value" and "valor" suggest a driving force that gives vital energy to the life of a person or a culture. We would suggest that for western culture, this driving force, this deep

metaphysical value, is the impulse toward fragmentation. Indigenous knowledge, in contrast, has traditionally given deepest value to the inherent unbrokenness of the natural world in all its multiplicity of forms. It is unfragmented in its basic outlook; its beauty, power and strength (value) come from perceiving the world in this unique way.

Another manifestation of indigenous wisdom is active intelligence. From this perspective intelligence provides the means to select among many choices. The word “intelligence” comes from the Latin *inter* (“between”) and *legere* (“to choose, select or gather”). This suggests an activity in which the entire nexus of Indigenous wisdom is brought to bear in a specific context or situation.

Problem-Solving and Critical Thinking

We have seen that paradox thinking is a portal to an entire matrix of Navajo wisdom. However, in the search for the sustainability of indigenous cultural values, indigenous students in Western educational contexts invariably encounter a cognitive style that not only differs from paradox thinking, but is often situated to undercut or eliminate paradox thinking and all that it implies. This cognitive style – closely aligned with the scientific method – is the problem-solving/critical thinking methodology.

Brenner and Parks (p.217) have identified a series of variances between Eurocentric problem-solving / critical thinking and indigenous cognitive styles.

Many cultures, including Native Americans, typically value holistic rather than analytical types of thinking. They view all things as connected and think in terms of general principles or seeing the big picture... In Chinese culture, dialectic tensions that Westerners see as opposites – for example good versus evil and right versus wrong – are seen instead as complementary. The yin and yang illustrate not simply opposites, but the balance or harmony of the whole – the unity of the two (Chen 1998). Ho (1998) draws attention to the Filipino concept of “pakapa-kapa”, or groping, as a general way of problem solving that encourages approaching problems with

no preconceived notions or questions, as blank slate, “as if one were in a state of total ignorance.” (Ho, p. 97). This approach, grounded in a sense of shared identity and connection with others, is similar to what Hvolbek (1992) describes as a meditative type of thinking, developing full awareness of the moment, and avoiding analysis and categorization, while being fully present and passively contemplative rather than actively investigative.

And significantly, regarding the raw material or “data” used to navigate the world, Brenner and Parks (p.219) point out that:

All cultures rely upon information, but data and credible sources may be defined differently. In Western culture evidence is drawn from scientific research, experts and authorities, or books. In collective cultures, wise elders – referred to by the Lakota as “living libraries of knowledge” – are sources of information. In oral cultures, decision making is informed by stories prized for reflecting the values and wisdom of generations (a coded wisdom). Polynesian navigators developed keen sensitivity and accuracy in reading patterns in seemingly unrelated signs, information that western science traditionally regarded as chaotic (Witt-Miller, 1991).

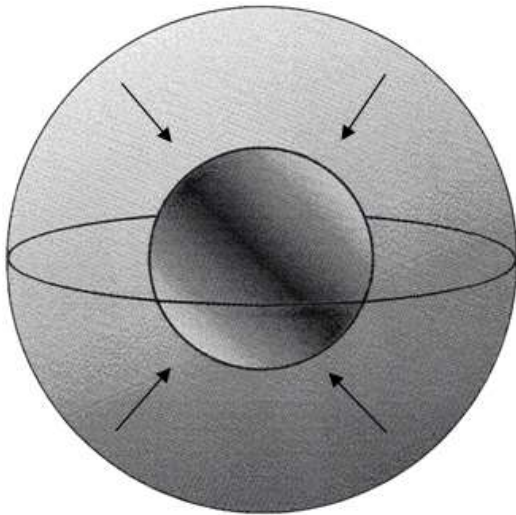
This “information that western science traditionally regarded as chaotic” is precisely the *order* perceived by many indigenous cultures, the matrix that informs their most deeply held values. The difference here is that western methodologies (scientific, problem-solving) are facile at excluding information in order to narrow the parameters of the problem at hand, while indigenous traditions emphasize taking into account a far broader spectrum of information at any given point.

Our experience in a variety of educational contexts has been that institutions administered by westerners have little interest in addressing this disjuncture – and to the extent they do, they employ the very methodologies that are in question here. The limitations of this approach are self-evident. On the other hand, in institutions administered by Native Americans, the tendency thus far is to “integrate” the two world views. On its face, this approach seems sensible enough. But the deeper import of such “integration” is to do justice to *neither*

approach. The integrative approach can diminish the integrity of both disciplines, as they are distinct and different from one another and each stands on its own intellectual merits.

In our view, there is a precisely ordered relationship between the problem-solving mind and the more expansive holistic mind, an order which is rarely recognized and even less often articulated. But the articulation of this order is essential if the educational contexts of indigenous students are to evolve with the creative dynamism which is inherent in their traditions.

The diagram below may be useful for considering the order we are proposing



Wisdom Matrix Informing the Problem-Solving Mind

The larger of the two spheres depicted here represents the matrix of aboriginal wisdom we have discussed at length in this paper. The smaller of the two spheres represents the methodology of western problem-solving. The nested nature of the spheres indicates “higher” and “lower orders” – the aboriginal matrix being a more comprehensive order, while the western inner sphere is a more limited – though extremely powerful – order.

When the cognitive processes of the western problem-solving method flow *from* the larger matrix of understandings, the “two” approaches are really not two, and thus are not to be “integrated”, because they were never separated to begin with. The deeper holistic knowings naturally “govern” the more limited empirical

knowings. This in fact is historically the case with indigenous cultures. There is ample evidence of empirical thinking in all Indigenous cultures, an aspect of thinking in which the narrowed vision of problem-solving is vigorously exercised. The crucial point here is that the narrowed empirical vision is occurring in dynamic relationship with the wisdom matrix, sometimes consciously, sometimes unconsciously.

Today the more common configuration is one in which empirical problem-solving has been isolated and detached from broader traditional knowing, as is the case in western traditions. In this case a portion of thinking has cut itself off from its own foundations and pretends that whatever exists outside its field of vision is either non-existent or irrelevant. The implications and practical consequences of such fragmentation are pervasive and wide-ranging.

This fragmentation is not a *necessary* feature of empirical thinking; indigenous cultures have traditionally moved with ease between the holistic matrix (Brenner and Parks’ “chaos”) and the more narrow, “practical” perspective of problem-solving. Working from this model, it may be possible to re-vision the manner in which critical thinking is defined, interpreted and taught – not only to indigenous students, but to Western students as well.

Transformation

The dominant society is currently governed by a tacit infrastructure of polarity thinking which artificially freezes and divides the forms of the living world. This kind of thinking has become a major foundation of global educational pedagogy. If the world is going to shift from this type of education to a more holistic approach, as illustrated in the diagram “Wisdom Matrix Informing the Problem-Solving Mind,” a major transformation needs to occur.

The outermost sphere illustrated in the “Wisdom Matrix” diagram indicates the whole of Indigenous knowledge. This knowledge has been marginalized and discounted in most educational systems of the dominant society around the world. There is currently a great emphasis on the importance of problem-solving in Eurocentric pedagogy, which is totally cut off from the wholeness of traditional knowledge. This disconnect between Indigenous and western values should be seen clearly for what it

is, and must be regenerated through new, inclusive models, in order for contemporary students to succeed.

Transformation may require revitalization of ancient wisdom, values, and principles. This process could require re-definition of ancient values within contemporary indigenous wisdom, values that are applicable to the present generation of indigenous people in modern conditions and environments. Identity, or self-identity, of indigenous people, revealed through a re-definition of the current value system, may determine to what extent indigenous ways of knowing can truly provide some means by which indigenous and non-indigenous people can go beyond the status quo.

Language, fluency and intensive cultural knowledge may not always be a necessary precondition to exploring recommendations based on principles and models (diagrams) such as those we have provided in this paper. However, the authentic wisdom embedded in the traditional languages can still inform and guide transformation. Each indigenous community is distinct and different from others, using its own organized knowledge base with which to discuss and define values through community-based wisdom.

Values, as historically lived and experienced, come in many shapes and carry varied definitions unique to place and time. The process of change and transformation requires going backward and going forward simultaneously. Transformation, through this paradox, requires drawing on ancient epistemological roots and the accompanying wisdom to develop a shared contemporary definition of values to improve education and decision-making in all facets of the life process.

Conclusion

In this paper we have discussed re-visioning the relationship between two major cognitive styles: traditional Indigenous wisdom and Eurocentric empiricism. We have created several diagrams to illustrate a mutual and holistic relationship between the two ways of knowing. We have gone into some detail of the traditional Indigenous consciousness as it is less known and understood in the western academic world. The paradox thinking of traditional Indigenous wisdom (in this case that of the Navajo) of balancing opposites, with emphasis on the value

of relationships, can be a useful tool for transformation and for reconnecting the historic disconnect between Indigenous and western ways of knowing and living.

It should be noted, however, that none of the concepts or models we have presented are intended as fixed or final. Their value, such that it may be, is in encouraging new ways of fluid thinking and creative understanding.

Acknowledgement

Diagrams by Eva Casey

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ORAL TRADITION OF DEWI KRESNA DANCE DRAMA PERFORMANCE IN KERAMBITAN TABANAN - BALI: A STUDY VIEWED FROM FUNCTION AND VALUE PERSPECTIVE

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ABSTRACT

The purpose of this study is to describe functions and values of Dewi Kresna Dance-Drama Performance in Kerambitan Tabanan. The underlying theories used as the basis of this research are the theories of structuralism and hermeneutics. The data of the research was obtained through conducting field observation, interviewing some source persons, research libraries and recording the performance on the spot. The result of the recording was transcribed and translated literally and idiomatically. Then it was analyzed descriptively using argumentative techniques. The result of the findings is that the plot of the story is made up with two main acts with nine types of conventional scenes. The characters involved in the performance were categorized into stock characters, conventional formulaic ones who are always present in every traditional performance in Bali and also central characters. Why Dewi Kresna is used here, not Calonarang as commonly used in the other parts of Bali is due to the factors of feeling, esthetics and the society's belief in Kerambitan. They avoid using "Calonarang" who has so far negative connotation. The theme sets forth here is the eternal battle between good and bad spirits. The functions of the performance for the village community in Kerambitan are for completing the process of the temple ceremony, as the media of education, for entertainment, as a means of tightening the society's relationship, and for driving away disaster. The values that can be taken from the performance are values of legend, magical phenomena, religious practices, loyalty, esthetics, ethics, and the two opposing powers: rwa-bhineda.

Keywords: Oral Tradition, Performance, Function, Value

Introduction

Oral literature, including oral stories or oral tradition, is a national cultural heritage that still has values that should be developed and utilized for the present and future life. In fact, oral literature has for centuries served as a basis for communication between creators and the community, in the sense that creations based on oral tradition will be easier to associate with because there are elements known to the community (Guy Cook, 1994)

Considering the position and the role of oral literature which is quite important as mentioned above, then oral literary research needs to be carried out. Even more so if you remember that changes in society, such as advances in technology, the existence of radio and television can cause a gradual loss of oral literature in the archipelago. Thus, oral literary research can save oral literature itself from extinction, so that oral literature can be passed on to future generations. Oral literature

harbors many values and ways of life and the way of thinking of the community of its owner. Almost every tribe in Indonesia knows oral literature, as well as the Balinese people. The story of "Calon Arang" is one of the many oral literatures possessed by the Balinese people. But in the village of Kerambitan, this dance drama performance uses the name of the character "Goddess of Krishna". Even though the general public in Bali is familiar with the performance by the name of the character "Calonarang". Why is the name of the character "Dewi Kresna" and not Calonarang? What is the background behind the character of "Dewi Kresna"? This discourse is interesting to know in terms of function and meaning contained in the discourse of Dewi Kresna dance drama performances which is more commonly referred to as Calonarang by the general public. There are two main problems that really need to be answered. 1. What is the

function and meaning or value of the oral discourse of Dewi Kresna dance drama Performance ? 2. Why do people in Kerambitan keep on using Dewi Krishna, not Calonarang as is commonly used in other places in Bali?

This research is expected to contribute to the development of humanities. In addition, this research can be considered as an effort to excavate, preserve and develop cultural heritage, especially in regional literary activities in the form of performing arts. It is also intended to be able to reveal how the description of the function and meaning of the discourse of Dewi Kresna dance drama performance in Kerambitan Tabanan. And then in order to find out why the people there used the name Dewi Kresna instead of Calonarang as it commonly used.

Benefits of Research Theoretically, research on Dewi Kresna dance drama discourse concerning the study functions and meanings is intended to get a picture of the totality of Dewi Kresna's dance drama discourse by looking at structuralism theory which ultimately also sees the totality of structural meaning with semiotic and or hermeneutic theory as the foundation of analysis. Thus, this research can be expected as a vehicle in the development of literary theory in general and oral literature in particular. Practically, it is intended to get a picture of functions and meaning (values) through the story or structure used in the dance drama performance of Dewi Kresna.

Research methods

The method used in this research is descriptive method because this research is only describing a number of phenomenon related to the discourse of oral tradition of Dewi Kresna dance drama performance.

Data collection technique

The steps taken in collecting data were conducting direct observations to the field to find out and clearly determine the location of the research, then conducting interviews with community leaders and artists who knew a lot about Dewi Kresna Dance Drama performances, then held a live recording when the dance drama performance was staged during

the *Pujawali* Ceremony (temple ceremony) in Kerambitan Village, Tabanan. Then the results of the recording were transcribed and translated into Indonesian for the analysis focusing on function and meaning or value.

Data source

The main data source of this research is the recording of Dewi Kresna classical dance drama performance discourse, which was performed at *pujawali* ceremony in Kerambitan Village, (banjar Tengah Kawan) Tabanan and the results of interviews with a number of credible resource persons.

Data processing

After the data was obtained in the form of transcription and the translation of the drama performance "Dewi Kresna", then the analysis of function, and meaning was done descriptively and analytically. Inductive data processing, which started from the description and finally to be concluded. To translate this transcription, a combination of translations was used, namely the literal translation and the automatic translation.

Results and Discussion

Analysis of function and Meaning or value of Dewi Kresna classical dance drama Performance can be set forth vividly below. The focus of description is limited just focusing on functions and meaning or values

Structure of Dramatari Scenarios

A play scenario such as a drama including classical Dewi Kresna dance drama performance must have elements of a plot, an actor, a theme, presented with a media of dialogue and action, by which elements of conflict and tension build a clear emotional response to the audience (Ommanney in A, Adjib Hamzah, 1985: 96)

Plot

If we look at the technique of flow of Dewi Kresna story in the observed performance, it seems clear that the distribution of Dewi Kresna story is quite simple. The flow is arranged chronologically from one event to the next, without any flash back. The grooves are arranged linearly (straight grooves).

The following will be presented a plot of Dewi Kresna as observed in the performance during the temple ceremony in Kerambitan Village, such as the following.

(Early introduction) : Dewi Krishna had a very beautiful daughter, her name was Ratna Mengali. Although she was very beautiful, no one proposed to her because she was afraid of her mother who was famous for having magic powers.

Complications (Generating Circumstances): Because no one dared to propose to his daughter, Dewi Krishna became angry. She and her students with sorcery carried out her evil intentions to destroy the kingdom of Daha. Resistance also occurred from the royal side, with one goal, namely to kill Dewi Krishna.

(Rising Situation): King of Daha in Kediri, Erlangga, ruled wisely, so he was loved very much by his people. In a village, the village of Dirah, which was still under the authority of the king of Daha, there lived a widow named Dewi Krishna.

(Rising Action): Knowing this murder plan, Dewi Kresna's was getting worse. She along with her students tried to expand the destruction of Daha to all corners of the kingdom. Even though the situation in Kediri was getting worse, King Erlangga and the servants of other countries never gave up hope.

(climax): There was a fierce battle between Prime minister, Patih Pandung who was assisted by other royal servants with Dewi Krishna and her loyal students. In this battle Dewi Krishna changed form to "Rangda", a very scary and frightening figure.

Settlement (denouement): Finally the battle between Dewi Kresna and Patih Pandung ended with the conclusion that no one had lost and neither had won.

Function Analysis

In connection with the function of literary discourse, Wellek and Warren (1990: 25) which refer to the Horace concept states that literary works function as "dulce" (entertainment) and "utile" (usefulness). If the literary work is not entertaining nor does it bring benefits to the community, the literary work cannot be considered a good or quality literary work. From interviews with some informants in the Kerambitan village, that the most basic and main function of Dewi Kresna dance drama

performance is as a complement to temple ceremonial process, as an offering to *Ida Betara, Sesuhunan* who resides in the community temple in Kerambitan village, while other functions are as educational media for society, as entertainment, as a means of unifying and binding the society social system, as driving away disease outbreak.

The following will describe each function of Dewi Kresna dance drama (DKDD) performance in accordance with the information provided by resource persons, especially in Kerambitan village, as the following describes.

a. Complementing the Ceremony (The Most Main / Main Function).

It is a media so that *Ratu Biang Lingsir* and *Jero Gede* (the scary figure where it is believed the gods resides), a drama scenario was made that took the drama performance "Dewi Kresna". Dewi Kresna in the performance was in the form of *Rangda, Ratu Biang Lingsir's* figure (demon-like figure). Supporting communities do not call it "Rangda", but "Ratu Biang Lingsir" or "Ratu Biang Sakti Sapuh Jagat" to express their respect for *Betara* (god) which is believed, respected and highly sacred by the residents of Kerambitan village. So, every temple ceremony, it is a must that "Ratu Lingsir" is to be performed as a sign that the ceremony has been completed successfully. The temple ceremony was not considered complete before Ratu Niang Lingsir was staged.

b. As a Community education media channels of communication

It includes (a) communication through religious hierarchies, (b) communication through scientists (writers) and (c) communication through theater or performing arts (Nurgiyanto and Bandem, 1996: 30).

The DKDD discourse clearly appears that dialogs / songs are full of some educational values that contain delivering goodness or moral values to the village community. Through this DKDD performance, the audience can ponder and finally be expected to be able to realize which actions are appropriate to emulate and which actions must be thrown away.

c. As an entertainment

As the writer was observing during the performance, people came in droves to

watch the performance. This is a sign that the performance still has its own charm to be enjoyed even though they have watched it many times. As Lotman puts it, there may be a "classical aesthetic" or "equality aesthetic" that might appeal to the audience. If it is not interesting, it is certainly not possible for them to come sitting or standing for hours to watch it.

d. As a media to strengthen community social relations

For the institutional performance of the DKDD, all members of the Banjar Tengah village Kerambitan community were involved: some were as performers, some were gamelan performers, artisans made offerings, or assisted in the field of performance equipment. In this case because they feel one as traditional community member of Banjar Tengah Kerambitan village whose daily lives may be preoccupied by their respective professions, they have never met or exchanged greetings with each other, also because their places to make a living are scattered everywhere. This special moment is an excellent opportunity to strengthen social relations, establish unity, strengthen brotherhood or friendship between citizens consisting of various social strata.

e. As a means of repelling outbreaks

In addition to the afore mentioned functions, DKDD performance is also believed by the community owners as a means to drive out a frightening epidemic (*grubug*) in the village. It's just so far if there is an epidemic of rampant disease, after the show, "Ratu Biang Lingsir" is also called "Ratu Biang Sakti Sapu Jagat" (Rangda) along with "Jero Gede" (Barong) were paraded around the local village. In front of the entrances of people's houses, the family members, usually mothers, offer simple offerings to Ratu Niang Lingsir and Barong and other attendants as they pass through their houses hoping that they will not be spared by any disasters at all. After completing the offerings, the residents were given holy water (*tirta*) by the priest to be sprinkled to residents or members of the village and also sprinkled for sacred buildings (family temples) or in other residential buildings.

Values or meaning Analysis

Ricouer (1985) states that the concept of meaning allows interpretation that reflects the main dialectic between events and meaning. A similar opinion is also said by Kleden (1996: 5) that values or meanings are usually regarded as something related to culture or more specifically with the symbolic world in culture. The symbolic world is the world where production, reproduction and storage of mental and cognitive contents of culture are found in the form of knowledge and belief, in the form of meanings and symbols as well as the values and norms that exist in a culture. The following will analyze the meaning or values that can be drawn from the oral discourse of Dewi Kresna dance drama performance in Kerambitan Tabanan. The meanings or values presented here are the meaning of legend, magical, religious, responsibility, loyalty, aesthetic, ethical and rwa-bhineda meaning.

a. The Legend Meaning

Stories with the theme of nominations in this case also include stories of Dewi Kresna dance drama (better known as Calonarang) can be categorized as stories that include historical legends, which are a blend of historical elements with elements of legend. Historical elements can be seen from the names of places and names of characters that have existed in history, such as Kediri in East Java, Raja Erlangga, Empu Beradah and Empu Bahula. This can be used as an indicator that these characters/figures have indeed existed in history. However, when exactly the event happened is unknown, there is no definitive data. One thing that can be used as an indicator that the event was told around the XI century where at that time Erlangga was ruling. It should be noted that Erlangga was crowned king on February 1, 1020 (Poesponegoro and Noto Susanto, 1984: 261). But the names of central antagonists such as Dewi Kresna (more commonly known as Calonarang), Ratna Mengali, Patih Pandung Maguna have never been mentioned in history. The names are only in the legend. The characters as mentioned above have experienced the process of Balinese-ness from the original story. Specifically in Kerambitan, Calonarang became a local concept (local genius) replaced by the name Dewi Kresna. It can be concluded that the element of

legend in the story of Dewi Kresna (Calonarang) is very strong.

b. Magical Meaning

Magical meaning (magic) as said by Hornby that is the art or way of controlling events or circumstances with supernatural powers (Hornby at al, 1974: 510). When explored carefully, Dewi Kresna dance drama performance is a class drama that has relatively many elements of magical value. Based on that, DKDD can be categorized as a nominating performance. Some magical elements that can be seen in DKDD performance can be explained as follows. The beautiful students of Dewi Kresna with sweet words while still in the form of ordinary human beings, then transformed their forms from ordinary humans to become bare frightening giants (*celuluk / pangpang*), pocong, *apes*, *leaks* of various colors: some are white, red, black when they want to destroy the kingdom of Kediri (making *grubug/desaters*). It feels that the magical atmosphere was very strong. Events like this are clearly absurd, irrational, because abilities like this can only be done with supernatural powers, with magical powers like what Hornby said. The magic can be positive and can also be negative according to the purpose for which the magical power is used.

c. Religious Meaning

The meaning or religious value contained in the DKDD can be seen from the use of songs that are filled with religious teachings or *dharma (good virtue)*, especially the teachings on how to be a good leader where *darma* must always be held in everyday life in order to get happiness in the world and in hereafter. King Erlangga, in ruling his government, always thinks, says, and does good (*Tri Kaya Parisuda*) based on *darma*, for the sake of people's welfare. Various methods and efforts were made by King Erlangga as a form of devotion to his people. King Erlangga has done good things, based on *darma*. The act of virtue in this world is something that must be carried out by religious people in accordance with the guidance of religion, whatever religion they believe, because the obligation to do good things is universal.

d. Responsibility Meaning/Value

In Dewi Kresna story, which was performed through a traditional dance drama in Kerambitan village, the responsibility value can also be learned from watching the performance. Even though the values of responsibility are not explicitly revealed, the values that imply responsibility can be absorbed through the contents of the story compiled by the director, as in the example below. King Erlangga who is responsible to the people, has done his utmost in eradicating the plague that devastated the kingdom as a result of sorcery or the science of defeating Dewi Kresna and her students. The king sent Patih Pandung to go to Dirah with the ultimate goal: to kill Dewi Kresna and her students. This is as a proof that both King Erlangga and Empu Bahula are very responsible for the safety and welfare of their people. They are very concerned with the fate of their people.

e. Loyalty Meaning/Value

If we pay attention to the story of Dewi Krishna, that the royal officials or other royal servants are very loyal to the King. This can be seen how Empu Bahula who was willing to sacrifice his personal interests for the sake of his loyalty to the king when he was asked to make Ratna Mengali as his wife so that the secret of the deception of Dewi Krishna, Ratna Mengali's mother, could be revealed.

f. Aesthetic Meaning/Value

There are three things that distinguish literary works from other non-literary works, namely the existence of fictionality, the existence of artistic values (esthetic values), and the way of using special language, special use of language (Sumardjo and Saini KM, 1986: 13). DKDD performance is a traditional discourse, which is studied as a work of art in the form of this performance, is able to provide fresh entertainment to the audience (*dulce*) because it contains aesthetic values that we can pick, as can be seen in the dance arrangements, costumes, the songs while dancing, the storyline, etc. DKDD discourse dialogues are loaded with aesthetic and philosophical values. These values are expected to provide benefits (*utile*) and can provide a positive influence on the audience.

g. Ethics Meaning/Value

After analysing DKDD discourse in depth, the author can find the meaning or ethical values contained in there. Ethics is related to morals. Moral value means a doctrine of good and bad that is generally accepted about rules, attitudes, obligations, morals, character or moral. Morals in literary works usually reflect the viewpoint of the author concerned, his views on the values of truth, and that is what he wants to convey to the audience (readers / viewers). In DKDD we can reap the ethical meaning as shown by the servants of the kingdom or the bellymen on the stage. That attitude or ethic can be seen in the characters' attitudes for example in the speech or the language used, in this case the royal servants use subtle language towards their equals. This is in accordance with norms, ethics that apply to Balinese people with Balinese cultural backgrounds that have social strata.

h. Rwa-Bhineda Meaning/Value

In communities with Balinese cultural backgrounds where Hinduism is the source of inspiration, the term "Rwa-Bhineda" is a familiar terminology. Rwa-Bhineda means conflicting mutuality, for example good - bad, day - night, male - female, and so on. For the term "rwa-bhineda", Berg uses the term "cosmic classification" to borrow his term Prof. Drs. Shaleh Saidi. DKDD performance clearly shows the value of rwa-bhineda in which there is a conflict between the two opposing forces, that is : bad or evil forces which in this show is represented by the presence of Dewi Krishna and her students with good strength represented by Prabu Erlangga and all his servants.

In religious teachings as proclaimed by Sri Krishna as the incarnation of God who descended to the world to Arjuna in Kurukesetra before the war began that truth will always win against evil (Mahabrata on Bali TV, 2005). Although in the beginning in the dispute between the forces of good and evil, we often see the good forces are helplessly made, in the end the good at last will also win. However, in DKDD the struggle between the two opposing forces was not resolved. It seems that the author of the story scenario deliberately made the show end without winning and losing either good or evil force. The fight between good and evil is described as continuing to last

forever. The performance organizer here seems to intentionally use a dependent plot, in the sense that the audience is expected to provide the answer. This is one of the interesting findings obtained by the writer. This is also in accordance with the statement of a resource person quoted by the writer on the Hindu pulpit on TVRI Denpasar on April 22, 2006 which says that the fight between *dharma* and *adharma* is not final, they have existed since ancient times, now and in the future, the struggle will be eternal. Inspiration for this model is what seems to be used by the author of the story scenario in Dewi Krishna performance. It also means that a symbol will mean that as long as humans are still inhabitants of this virtual world, the conflict between good and bad, evil forces and good forces will always be there, always stand side by side, eternal all the time.

Conclusions

From what has been described in the previous section, it can be summarized as follows.

Dewi Kresna Dance Drama performance discourse consists of two stages by utilizing a simple flow with five stages, namely introduction, complications, rising conflict, climax and denouement.

The theme adopted was the eternal conflict between *rwa-bhinedha*, between evil forces and good forces. In implementing the plot and the theme, DKDD discourse utilizes the actions

or use dialogue and monologues and some in the form of traditional songs which are sung while dancing. To give an aesthetic effect in dialogue or monologue, several styles of language (stylistics) are used, among others, the style of parables, repetition, metaphor and also utilizing the style of sarcasm. As one of the traditional theater of the Balinese that cannot be separated from the convention or formula of a traditional performance in Bali area, DKDD also utilizes conventions including utilizing fantasy characters (stock characters) who are always present in traditional Balinese dance drama performances, whatever the story is. In addition, there are also conventions on the use of languages: Old Javanese, Balinese and also Mixed use of languages. What is unique here is that the use of characters more commonly

known as *Calonarang* in other places, specifically in Banjar Tengan Kerambitan (Village), Calonarang name is replaced by Dewi Kresna, because it is related to the issue of "taste, aesthetics, traditional religious belief of the people there who feel taboo, to mention something sacred with the name of Calonarang that is commonly known to have negative connotation. For the community of Kerambitan village (Banjat Tengah kawan), DKDD performance has the following functions: 1) The most important function is to complement the *Pawawali* ceremony. 2) As a medium of education to the community. 3) As a community entertainment. The public was very enthusiastic to watch Dewi Kresna performance even though the performance has often been staged. This is inseparable from the classical aesthetic problem contained in the performance. 4) As a media to strengthen community social relations. 5) As a means to drive away disease outbreaks. Then, the meaning or value that can be analyzed from the performance of Dewi Kresna is : 1) Legend meaning, can be seen from the main character such as Dewi Krishna which never existed in reality, the names of these character only exists in legends. 2) Magical meaning, because DKDD displays many aspects or events that cannot be digested with common sense. 3) Religious Meaning, related to people's belief in realizing their belief in Almighty God. 4) The meaning of responsibility, is taken up by the king and other royal servants who earnestly strive to eradicate the plague (*grubug*) for the sake of a service to his people. 5) The Meaning of Loyalty, it can be seen how Empu Bahula willingly sacrificed his personal interests when asked by the King to marry Ratna Mengali even though he did not love her. 6) Aesthetic Meaning, related to *ulite* and *dulce* 7) Ethics menaing and 8) *Rwa-bhineda* Meaning. This two opposing powers will continue to exist as long as humans are still as inhabitants of this universe. *Rwa-bhineda*, spesifically the conflics in DKDD is a symbol or representation of eternal conflicts between good and evil forces.

Suggestion

Seeing the fact that Dewi Kresna dance drama performance in Kerambitan Village in Tabanan is very popular up to present time. It means the performance has its own aesthetic

aspect. If possible, the performance should be more professionally organized, in addition in complementing the *pujawali* ceremony, it should also be well arganized for a better quality entertainment in the sense of the performance of Dewi Krishna expected to provide spiritual enlightenment to the community through the dialogue of the characters. Thus, Dewi Kresna's performance can be more useful (*utile*) for the public or the audience who are hungry for entertainment to fill their spirituality after finishing struggling with daily routine tasks. However, the packaging should still pay attention to the elements of art as the development of art itself

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ECONOMIC VALUATION OF JATILUWIH, PENEHEL TABANAN

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ABSTRACT

This research entitled "Economic Valuation of Jatiluwih, Penebel Tabanan". The purpose of this study was to determine the economic value of Jatiluwih are assessed using contingent valuation method and income approach. The variables used in this study is the willingness to pay as dependent variable and the travel cost, number of visits, income, education, age, quality, and presence or absence attractions substitution as independent variables. The data used in this research is the primary data in the form of questionnaire results from 100 respondents. Equipped also with secondary data which is the data on the number of foreign tourists and domestic visitors to the province of Bali and Tabanan regency in the last five years, as well as data on the number of visitors who visited attractions Jatiluwih in the last five years. Based on the results, the conclusion is that the economic value of Jatiluwih using contingent valuation method is Rp149.541.653.788,51 with the average value willingness to pay of domestic tourism is Rp24.705,88 per individual per visit and Rp. 46.774,00 per individual per year. Average value willingness to pay of foreign is Rp37.325,94 per individual per visit and Rp 37.325,94 per individual per year. The economic value of attractions Jatiluwih based on income approach is divided into two, that is the DCF based attractions Jatiluwih is Rp34.431.981.960,00 and DCF based productive land is Rp4.600.267.876.436.

Keywords : *Contingent valuation method, income approach, economic valuation*

Introduction

The rise of regional autonomy increasingly provide opportunities for each region to develop all of its potential. The local government has full control of the area led, mainly processing area properties optimized for tourism activities. According Andriyan (2011), tourism in regional autonomy is the realization of the ideals of the nation of Indonesia. Tourism, if managed properly it will contribute directly to the people around the area of tourism, especially from sectors of the economy. Tourism indirectly contribute to PAD and certainly for a country's foreign exchange earnings.

Call it Bali, three potential of tourism in Bali such as natural beauty, unique culture and friendly people have made this region as one tourist destination of the world. The tourism sector has been the engine for economic growth and development in Bali since 1970. Therefore, tourism is a very tight and can not be separated again in public life and development in Bali (Pitana and Setiawan, 2005).

Development of tourism in Bali is always based on the application of the concept of Tri Hita Karana. This concept aims to menyeimbangkan relationship between man and God, man's relationship to man, and man's relationship with nature. Expectations from the

application of Tri Hita Karana philosophy is this harmony, masyarakat residing or visiting Bali can obtain welfare, prosperity, happiness and peace in his life (Darmayuda, et al., 1991).

In line with the Tri Hita Karana filosopoi embedded on tourism in Bali, an important tourist asset management does good to keep the balance in each sector of the economy that support tourism in Bali. Attraction Optimizing important in order to maintain the existence of a tourist attraction, which leads to a balance between progress towards cultural and religious tourism, eco-friendly tourism management, as well as to promote tourism economy of surrounding communities.

Widespread development of tourism destinations in the era of global This is a challenge for the government to continue to make Bali as a major tourist destination. Had the decline of tourism as a result of the Bali bombings was troubling the people who depend on this sector. Bali alluring charm and uniquely able to revive Bali tourism was almost dead.

The tourism village is one form of implementation of community-based development and sustainable tourism. Through the development of rural tourism is expected to occur equity in accordance with the concept of sustainable tourism development (Heny, et al., 2013). The existence of a tourist village became

a new alternative that can be offered to tourists for rural tourism development while maintaining cultural values without any fading of the value of the culture itself.

One of the tourist village are quite able to attract the attention of tourists to visit is tourism village Jatiluwih. The village is located in the district Penebel Jatiluwih Tabanan regency. Jatiluwih village is a highland village situated at the foot of Mount Batukaru. The village is located at an altitude of 500-1500 meters above sea level and has an average rainfall of 2,500 mm / year. Topographically hilly and cool air makes this village has a rice field that berundag-undag (Heny, et al., 2013).

Attractions Jatiluwih is located 48 km from Denpasar. The location is 28 km in the northern city of Tabanan. Jatiluwih village at the foot of Mount Batukaru and many protected areas which are located around the village. Land with a hilly contour makes the rice fields in this area are made step-by-step. However, the access road to reach this location can be quite difficult, because the road is not wide and slightly damaged. Local authorities are now beginning to fix the main access to reach this attraction. Access to the location the less well become a problem that is now beginning to be addressed by the government, as evidenced by some of the roads that have been paved for smooth vehicle access road.

The natural beauty of the village of Jatiluwih with breathtaking rice terraces, making this village is recognized as one of the strengths of tourism in Bali in the world tourism map. The beauty of the terraces and Subak system is still maintained intact until now to make the village of Jatiluwih as one of the attractions included in the world cultural heritage sites. Jatiluwih Desa recognition as world cultural heritage able to move tourists to visit. The award of the UNESCO rated a strategic efforts to encourage community participation in maintaining the natural resources of strong cultural values.

World heritage title as the world's cultural heritage has not entirely a positive impact on the progress of the village of Jatiluwih. According to Heny, et al. (2013), the development of tourism village Jatiluwih not siding with the local community. Wetland and farmers is a

major asset of this attraction yet to feel the benefits of this tourist village. Farmers who every day work in the fields and maintain the beauty of the land owned by the poor still do not even get contributions from development efforts Jatiluwih village as a tourist village.

According to research conducted by Muriawan (2012), Desa Jatiluwih has great potential to be developed, include: the natural potential; cultural potential; and human potential. Many tourist activities that can be developed in Jatiluwih travelers that can be implemented by local communities together in order to improve local livelihoods. However, behind the wealth potential of the obstacles encountered Jatiluwih Village community in the implementation of Rural Tourism Awareness is the lack of knowledge and understanding about the provision Jatiluwih Village community, the development of creative ideas, services to tourists, the ability to speak English, and pemahanan about cleanliness.

Low entry fees to attractions to be one of the world's cultural heritage has not been optimal management indicates that the attraction Desa Jatiluwih. Another problem is an obstacle in the collection of admission, which is plagued by Attraction track towards a common path so it is difficult to pick money for the ticket levy local visitors.

Tourism objects in an area, can provide an opportunity for the region to further develop and indirectly into the media psychic and physical gratification takes every human being. In addition, many benefits can be achieved by an area a tourist destination, one of which is the opening of jobs that will improve the welfare of people around the objects of tourism as a poverty alleviation efforts.

Jatiluwih village now has worldwide and increasingly visited by tourists. It is expected to make a positive contribution not only for visitors but also local villagers. Therefore, it is very important to do opimalisasi utilization of this tourist village in the form of the use and utilization of assets through better asset management. Jatiuwih village residents and local governments have an important contribution as a facilitator and the role of local communities as subjects actors in the preservation of the natural beauty of the village of Jatiluwih.

According to Siregar (2004: 518-519), the asset management there are five stages of work which are interconnected and integrated the inventory of assets, legal, audit, asset valuation, asset optimization, and development of SIMA (Asset Management Information System). Stages asset valuation work is one work process to conduct the assessment of assets controlled by the results of the assessment can later be used for various purposes, one of which is to optimize the asset. Asset optimization aims to optimize physical potential, location, value, quantity, legal, economic and owned assets.

Potential tourist attraction Desa Jatiluwih condensed cultural values and philosophy of religion is a supporting factor for optimizing management of Attraction efforts Jatiluwih village. Therefore it is very important to know the economic value of the attraction Jatiluwih. It is intended for some of the benefits of them for consideration aspects of local government in decision making related to the optimization of the use and utilization attractions Jatiluwih to provide income, especially for the local tourism sector. In this case, the assessment is based on two methods ie contingent valuation method and the income approach.

Research Method

The data in this study are primary data and secondary data. Primary data in this study were obtained from interviews with questionnaires to visitor attractions Jatiluwih both domestic and foreign tourists. In addition to the primary data in this study also uses secondary data obtained from the relevant agencies as well as information from the village office.

Methods of data analysis, economic valuation attractions Jatiluwih in this study will be analyzed using two approaches, namely the contingent valuation method and the income approach. Assessment by the contingent valuation method based on the assessment of respondents' willingness to pay attractions Jatiluwih. income approach valuation approach is done by calculating the discounted cash flows to the DCF method.

Results and Discussion

Data Description

Bali tourism decline as a result of the Bali bombings in 2002 had become frightened

of all circles who depend on tourism. However, the active role of the government to revive the sweet fruit of tourism in Bali, tourists visiting hinggaa now increasingly crowded and even have increased.

Tourism is the motor of the economy of Indonesia in general and Bali in particular. The increase in the number of tourist arrivals will automatically have an impact on the increase in revenue to a tourist destination, as well as the increase in the GDP in trade, hotels, restaurants, and services. Good management and sustainable tourism is expected to have a positive impact not only on the regional economy but also a positive impact on the welfare of the local community.

Tabanan Regency Overview

Geographically Tabanan regency in 1140 - 54'52 "east longitude and 80 14'30" - 8030'07 "south latitude. Tabanan is one of the areas in the province of Bali which has a strategic location, which is about 35 km west of Denpasar. Tabanan regency of Buleleng regency in the north, Badung regency in the east, the Indian Ocean with 37 km length of beach width and the west by Jembrana (KKS Tabanan, 2014).

Tabanan regency is located and altitude of 0-2276 m above sea level (asl), the highest. The peak of Mount Batukaru. The topography of Tabanan regency has three distinct characteristics. The southern part by the Indonesian Ocean which is a lowland topography is relatively flat, in the middle beergelombang, and in the north is an area of hills and some mountains such as Mount Batukaru, Mount Sangiyang, Mount Pohen, and Mount Adeng.

Desa Jatiluwih Overview

According Subhadra and Nadra (2006), Desa Jatiluwih is a village located in the area Penebel District, Tabanan. If you look at a map of Tabanan, elongated shape Jatiluwih village of east west direction along the 3.5 km to the north-south width of 2 km or more precisely from Tabanan City is 26 km to the north. The boundaries of the Village area Jatilluwih is in the north bordering the state forest, in the east with Senganan village, in the south adjacent to the Village babahan, and on the west side adjacent to the Village Wongaya Gede.

Jatiluwih village mewilayahi two Pakraman, namely: Pakraman Jatiluwih and Pakraman Gunung Sari. The division of administrative areas has been established that the village Jatiluwih consist of seven train services, namely: Banjar Dinas Kesambi, Banjar Dinas Kesambahan Kaja, Banjar Dinas Kesambahan Kelod, Banjar Dinas Jatiluwih Kawan, Banjar Dinas Jatiluwih Kangin, Banjar Dinas Gunung Sari village, and Banjar Dinas Mountain Sari Umakayu.

Analysis of Contingent Valuation Method (CVM)

Hereafter CVM analysis after determining the market hypothesis and get the value of the auction, the third stage in the CVM method is to determine the average WTP. Based on survey results that have been done, then obtained as follows.

Average rating willingness to pay domestic and foreign tourists on the additional facilities of attractions Jatiluwih. The next step in the method is to estimate the curve CVM auction. Auction curve estimated by regressing the dependent variable with the independent variable. The results of the auction regression curve with R² of 48.10 percent is as follows:

$$PAP = 1779.9 + 0.019 (TC) + 477.9 (EDU) + 1801.3 (V) + 650,300 (INCOME) + 3704.8 (TIME) - 20.14 (AGE) + e.$$

The fifth stage, which is to obtain economic value attractions Jatiluwih required to convert the process of averaging the data samples to the average population. How that can be used to convert is by multiplying the average until the total population (Fauzi, 2010: 223). Based on the mean value, maximum, and minimum obtained WTP domestic tourists who ranged Rp10,000.00 sampai with Rp50.000,00 with an average WTP for Rp24.705,88.

The average value of domestic tourists WTP multiplied by the average number of tourists in one year. Furthermore, to obtain economic value from attractions Jatiluwih, WTP value per individual per year to the total number of visitors dikalitan attractions Jatiluwih in the past year.

Attraction economic value by Contingent Valuation Method Jatiluwih is obtained by multiplying the PAPs with the study population (the number of visitors on the cultural heritage Jatiluwih in one year), in order

to obtain the results of the economic value of attraction by domestic travelers Jatiluwih range Rp2.047.132.000,00 until Rp10.235.660.000,00 with an average economic value is Rp5.057.619.274,50. The average WTP for Rp37.325,94 tourists with a minimum of Rp25.000,00 value and a maximum value of Rp60.000,00. The average number of tourist arrivals is 1.

The economic value of attraction of foreign tourists Jatiluwih based around Rp2.722.250.000,00 until Rp6.533.400.000,00 with an average economic value is Rp4.064.421.606,60. The economic value not only obtained in the present, but also in the days to come, and therefore to calculate the overall economic value can be done by mengkonfersikan value in the future to present value. To establish the value of a year in value discounting process takes forever. Discount factor used is the social rate of time preference. Social rate of time preference (SRTP) is the discount rate at the time people want to postpone consumption today and replace it in order to more consumption in the future (Zhuang, Liang, Lin, de Guzman : 2007).

According to Zhuang, Liang, Lin, de Guzman (2007), followed Evans and Sezer (2004), the rate of pure time preference ρ is assumed to be 1.5%, elastisitas utilitas θ assumed marginal consumption of 1.3, and an average growth rate of per capita real g is the growth rate of consumption the average annual real GDP per capita from 1970 to 2004. According empat Asian countries, Ramsey formula produces an estimate SRTP as follows. SRTP Indonesia of 6.10 percent, so the value forever Attraction of Jatiluwih.

The result of calculation that the average economic value of attraction Jatiluwih by domestic tourists amounted Rp82.911.791.385,24 and Rp66.629.862.403,27 for foreign tourists. The minimum value of domestic tourists amounted Rp 33.559.540.983,60 and maximum value Rp167.797.704.918,03. The minimum value of foreign tourists amounted Rp44.627.049.180,32 and maximum values of Rp107.104.918.032,78. The results of the total economic value of attraction Jatiluwih by *contingent valuation method* by Rp149.541.653.788,51.

Analysis of the Discount Cash Flow (DCF) DCF projections Attractions

In doing Attraction revenue projections Jatiluwih, there are some procedural steps in the analysis, which is predicting revenue and operating costs of the attractions Jatiluwih. The period of cash flow projections can be done in 5 to 10 years. In this study analyzed the cash flow for 10 years. Estimated earnings growth rates are based on the average number of tourists who visit the attraction Jatiluwih during the last 5 years.

Based on estimates of growth in 2013 to 2018, based on observations in the field is difficult to achieve growth of up to 20 percent. It is caused due to several tourist attractions such as the kind of terracing at the Village and Village Selemadeg Cekingan.

Operational costs in the estimation assuming a total growth for the overall cost as much as 5.66 percent. The basis for determining the level of growth in the cost is the average rate of inflation growth in the province of Bali in the last 5 years. Based on the assumptions that have been established then calculate the cost of each year, along with its growth rate. Having obtained the projected costs of up to 10 years, to obtain the NOI.

discount factor determined using the CAPM. Risk free rate, we choose the yield of government securities (GS) with the longest maturity. Government Securities Auction Results on 14 October 2014 the outcome of the auction of Government Securities FR0067 series maturing on 15 February 2044 had a yield of 9.20%. Beta leisure company and a risk premium of Indonesia in January 2014 at 1.3 and 3.30%.

The next stage in the DCF analysis is to convert future benefits to the present value by discounting the projected NOI on a discount factor of 13.49%, which is described in Table 4.11. Under the DCF method generated economic value as a tourist village Desa Jatiluwih Attraction is based on revenue from entry fees for Rp34.431.981.960,00.

Productive land DCF Poyection

Revenue projections in this study is not only done Attraction revenue. Covering an area of 303 hectares of rice fields are the key of this attraction, so it is vital to determine the projected revenue from the value of attraction when seen from the area of productive lands.

For the productive land revenue projection is equal to revenue projections attractions. Projections done for 10 years, but the terminal value calculation and estimation of different growth.

Estimated revenue growth of productive land are based on the average price of unhusked rice tingat farmers during the last five years, amounting to 10 percent. Estimates of the growth of production costs are based on an average inflation of Bali Province last 5 years, amounting to 5.66 per cent. Calculation of discount factor equal to the projected revenue of attraction which is calculated by CAMP so menghasilkan value discount factor of 13.49 percent.

Terminal value the productive land revenue projections calculated by estimating the market value at the end of the projection period by taking into account the growth of the market value of the property itself (Prawoto, 2012: 443). This is done so that the value of the terminal value reflects the market value of productive land. The value of the terminal value can be calculated as follows.

$$TV = (x \text{ land market price of agricultural land}) \times (1 + G)^2 \quad (4.3)$$

$$TV = (3,000,000 \times 3.03 \text{ million}) \times (1 + 0.056)^2 = \text{Rp}15.674.838.148.797,10$$

The next stage in the DCF analysis is to convert future benefits to the present value by discounting the projected NOI on a discount factor of 13.49%. Under the DCF method Desa Jatiluwih generated economic value as a tourist village by the productive land revenue amounted to Rp4.600.267.876.436.

Economic Value Jatiluwih denganContingent Attractions danIncome Valuation Method Approach

The results of this study explained that based on the two methods of assessment done of the contingent valuation method approach to the attraction danincome Jatiluwih, the economic value obtained Jatiluwih different attractions at the two methods used. Attraction economic value Jatiluwih by contingent valuation method for Rp149.541.653.788,51. Calculations using the income approach or the income approach, the value of Rp34.431.981.960,00 Attraction DCF and DCF Rp4.600.267.876.436 for productive land.

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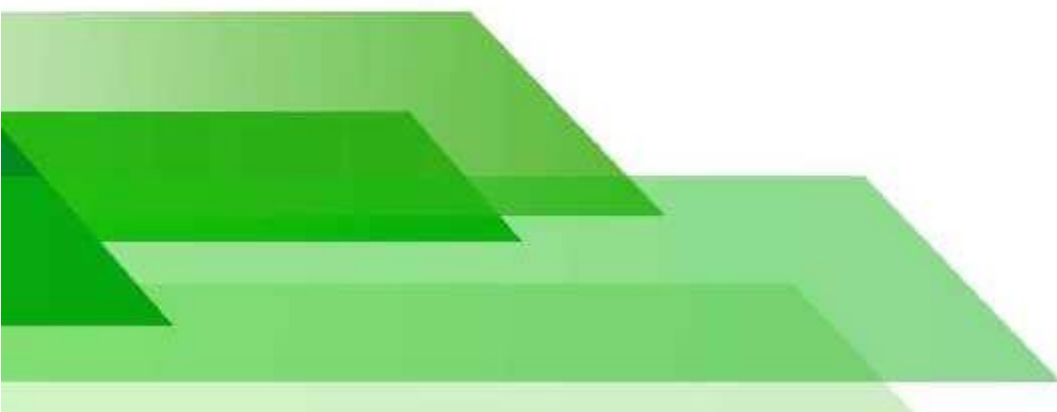
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