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Journal of Theoretical and Applied Information Technology
15th July 2018. Vol.96. No 13
© 2005 – ongoing JATIT & LLS
ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

MAPPING SPORTS TOURISM IN BULELENG-BALI USING *GOAL-ORIENTED* EVALUATION MODEL BASED ON *SAW*

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ABSTRACT

The main purpose of this study was finding the calculation process to determine the mapping of tourism object in Buleleng Regency which is potential to be sports tourism by using *goal-oriented* evaluation model based on *SAW* method. This study used two approaches namely qualitative approach to determine tourism objects in Buleleng Regency which are potential to be sports tourism, and evaluative approach to determine high potential tourism object to be sports tourism and mapping the tourism objects based on the highest and lowest potential places to be sports tourism. Subjects of this study were people who had micro business in sports tourism in three districts of Buleleng Regency. The technique of collecting data in the study used observation, documentation, interview, and questionnaires. The data analysis techniques of this study were qualitative descriptive to analyze data of identification result about tourism objects in Buleleng Regency which are potential to be sports tourism, and quantitative descriptive to analyze data of calculation result of *SAW* method for mapping and to determine the most dominant tourism object to be sports tourism. The finding of this study produced a map of tourism object in Buleleng Regency started from the highest to the lowest potential place, of which finally *Lovina* was considered as the most dominant or the highest potential tourism object to be sports tourism in Buleleng Regency.

Keywords: *Mapping, Sports Tourism, Goal-Oriented Evaluation Model, SAW*

1. INTRODUCTION

Bali has various tourism potencies, such as dazzling mountains, beautiful marine nature, natural and incredible lakes, unique customs and culture which make tourist interest to the natural tourism and it is potential for the regions to develop for many kinds of tourism activities.

Buleleng Regency is the regency located in the north of Bali. Geographically, the condition of this regency is highly potential to be developed as a tourism destination region. Buleleng Regency is located in the north of Bali stretching from west to east and occupies 144 km coastline. It is located in 8^0 03 '40^0 – 8^0 23 '00" south longitude and 114^0 25 '55 – 115^0 27 '28" east longitude.

Buleleng Regency has many natural potencies and local cultures which can be developed into tourism attraction, but the development has not been most significant. Buleleng Regency has nine districts which have high potency to be developed as reliable sports tourism and prospering the community. Eventually, every district in Buleleng Regency has abundant natural tourism activities and local cultures which can be managed into many kinds of sports tourism such as water sports tourism, land sports tourism and aerospace sports tourism fancied by both local and foreign tourists. Those potencies should be traced, managed and developed appropriately so the goal and purpose can be achieved.

Minimum tourist visit to tourism objects in Buleleng is caused by the weak empowerment of

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

the existing potency and less comprehensive socialization to the community, for the land, water, and aerospace sports tourism, so the movement and opportunity of the tourist to enjoy sports tourism become limited.

Therefore, by exploring the topography of Buleleng Regency as tourism object so it is needed the mapping of the entire potential tourism object/sports tourism so there will be innovations to be developed as product diversification of superior sports tourism attraction into a prosperous community.

In the future, there should be a map of tourism object especially for sports tourism (land, water, and aerospace) functioning as action pattern in improving the management and empowerment of natural and local culture potency in every district in Buleleng regency so there will be more meaningful tourism object development.

To get a more appropriate recommendation in determining tourism location which can be used for sports tourism, so an evaluation is needed. Basically, evaluation is an activity based on data collection, data processing, and data analysis to get a precise recommendation, so it will help to make an accurate decision. The definition of evaluation put forward is basically also in accordance with the explanation of the meaning of evaluation presented by researchers who have researched on evaluation, such as Aspinwall, Pedler, and Radcliff in 2018 [1]; Samperiz and Herrero in 2018 [2]; Mahayukti, *et al* in 2018 [3]; Koedel, *et al* in 2017 [4]; Ardana, Ariawan, and Divayana in 2017 [5]; Edmonstone in 2015 [6]; Cincera and Simonova in 2017 [7]; Han, Borgonovi, and Guerriero in 2018 [8]; Ariawan, Sanjaya, and Divayana in 2016 [9]; Cho, *et al* in 2017 [10]; Panezai, and Channa in 2017 [11]; Sanjaya and Divayana in 2015 [12]; Campanotta, Simpson, and Newton in 2018 [13]; Ainsa in 2017 [14]; Jampel, *et al* in 2017 [15]; Huang in 2018 [16]; Brink and Bartz in 2017 [17]; Divayana, Adiarta, and Abadi in 2017 [18]; Mapitsa and Khumalo in 2018 [19]; Divayana and Sugiharni in 2016 [20]; Muammar, Widodo, and Sulhadi in 2018 [21]; Sumual and Ali in 2017 [22]; Divayana in 2017 [23]; Liu, Xu, and Stronge in 2016 [24]; Divayana, Ardana, and Ariawan in 2017 [25]; Finucane, Martinez, and Cody in 2018 [26]; Suandi, Putrayasa, and Divayana in 2017 [27]; Madigan, *et al* in 2016 [28]; Divayana, Adiarta, and Abadi in 2017 [29]; Erford, *et al* in 2017 [30]; Jin, *et al* in 2018 [31]; Arnyana, *et al* in 2017 [32]; Wotela in 2017 [33]; Divayana in 2016 [34]; Bichi, Hafiz, and Bello in 2016 [35]; Prihatiningsih and Qomariyah in 2016 [36]; Divayana, *et al* in 2017 [37]; Donaldson and Papay in 2015 [38]; Divayana and Sanjaya in 2017 [39]; Cornelius, Wood, and Lai in 2016 [40]; Cutts, *et al* in 2017 [41]; Divayana, *et al* in 2017 [42]; Hepplestone, *et al* in 2016 [43]; Divayana in 2017 [44]; Southall and Wason in 2016 [45]; Opposs in 2016 [46]; Divayana in 2015 [47]; Utari and Djukri in 2017 [48]; Divayana, *et al* in 2017 [49]; Zumbach and Funke in 2014 [50]; Divayana, Adiarta, and Abadi in 2018 [51]; Prinsloo and Harvey in 2016 [52]; Divayana in 2017 [53]; Abrams, Varier, and Jackson in 2016 [54]; Divayana, *et al* in 2017 [55]; Derrington and Kirk in 2017 [56]; Divayana in 2015 [57]; Bolyard in 2015 [58]; Hammonds, *et al* in 2017 [59]; Divayana, Adiarta, and Abadi in 2017 [60]; Comings, Strucker, and Bell in 2017 [61]; Saunders in 2012 [62]; See, Gorard, and Siddiqui in 2017 [63]; Saucier, *et al* in 2014 [64]; de Klerk, Veldkamp, and Eggen in 2018 [65]; Delahunty, Seery, and Lynch in 2012 [66]; de Jager, *et al* in 2017 [67]; O'Keeffe in 2017 [68]; Yuan and Kim in 2018 [69]; Reinking in 2015 [70].

There are some models which can be used to evaluate a researched object. However, especially for mapping tourism object used for sports tourism, it should use evaluative model oriented on the goal and be able to determine the most dominant and potential tourism object to be used as sports tourism. Therefore, the most appropriate evaluation model for sports tourism is *goal-oriented* evaluation model based on *SAW* method. This evaluation model is a new innovation which combines education evaluation concept (*goal-oriented* evaluation model) with decision support system method (*SAW* method), in which measurement criteria is the goal of evaluation, while calculation process of dominant score/most ideal determines tourism object location for sports tourism. It is called *SAW* method.

Goal orientations of this evaluation model are: 1) sports potency, 2) people participation in sports tourism development, 3) local people empowerment, 4) the contribution of sports tourism activity upon local people, and 5) potency level of sports tourism. Likewise, criteria used to calculate *SAW* method is based on these five goals.

The goals of this study are 1) to have an explanation about some tourism objects in Buleleng Regency which are potentially developed for sports tourism; 2) to find out the most dominant or highest potential tourism object as sports tourism in Buleleng Regency; 3) to find out the mapping of some tourism objects which are potentially

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

developed to be sports tourism based on their quality level from the highest to the lowest level.

Based on these goals, the problems statements of this research are: 1) are tourism objects potentially developed to be sports tourism in Buleleng Regency?; 2) how is the calculation of determining the most dominant tourism object potentially used as sports tourism in Buleleng Regency?; 3) how is the mapping of some tourism objects which are potentially developed to be sports tourism in Buleleng Regency?

This study is conducted based on some previous research by others researchers, such as research conducted by Sudiana in 2013 [71] who stated that "almost all over the world, including Indonesia, sports tourism has emerged lately so many sports have been used as tourism object to attract tourists especially sport utilizing natural facilities such as mountains, lakes, rivers, and seas. Therefore, there should be an appropriate mapping of tourism object which can be developed to be sports tourism". The obstacle found in the research by Sudiana in 2013 was inaccurate calculation process of determining the map of tourism object developed to be sports tourism.

Danasaputra proposed a finding based on his research in 2009 [72] who stated that "sports tourism is a kind of vast developed sports activity in Indonesia because it has many mountains, seas, rivers, and lakes. Since every region has different geographical characteristics, so sports tourism development is high potential to be developed as an alternative of recreational sport for sports lovers such as mountain sport (hiking, camping, jungle trekking, cycling, tracking, etc), water sport (diving, canoeing, snorkeling, surfing, etc). However, Danasaputra didn't provide detail explanation of how to determine precisely the mapping of tourism objects which can be used as sports tourism.

Based on the problems, the proposed innovation as solution and previous research findings, so the researcher is highly interested in mapping sports tourism in Buleleng-Bali using *goal-oriented* evaluation model based on the *SAW*.

2. LITERATURE REVIEW

2.1 Goal Oriented Evaluation Model

Goal-oriented evaluation model aims to measure whether the goal of a policy, program or project can be achieved or not [73].

The *goal-oriented* evaluation model is an evaluation measuring the success of program/ project achievement reviewed based on the appropriateness of the result and the established goal [74].

Based on these two definitions, so it can be concluded that generally, *goal-oriented* evaluation model is an evaluative model that is used to measure or evaluate specific object based on the established main goal.

2.2 *SAW* (*Simple Additive Weighting*)

SAW (*Simple Additive Weighting*) method requires normalization process of decision matrix into a scale which can be compared with all the existing alternative rating [75],[76]. Here is a formula that can be used to obtain a normalized result [1]:

$$r_{ij} = \begin{cases} \dfrac{x_{ij}}{\underset{i}{Max}\ x_{ij}} & \text{if j is benefit attribute} \\ \dfrac{\underset{i}{Min}\ x_{ij}}{x_{ij}} & \text{if j is cost attribute} \end{cases} \quad \ldots\ldots (1)$$

In which r_{ij} is normalized performance rating from alternative A_i in attribute Cj; i=1,2,...,m and j=1,2,...,n [76].

The formula used to calculate preference score in every alternative (V_i) is as follow [15].

$$V_i = \sum_{j=1}^{n} w_j r_{ij} \quad \ldots\ldots (2)$$

The chosen alternative Ai is the highest V_i.

One of the *SAW* calculations can be explained as follows [77].

In Universitas Pendidikan Ganesha, it was evaluated e-learning in the teaching-learning process. The evaluation model used was *CIPP* (*Context*, *Input*, *Process*, and *Product*). The evaluated aspects were program condition, completeness of digital learning material, administrator readiness, user readiness. Determine the order of aspect priority which influences the success of digital library program in Universitas Pendidikan Ganesha started from the most important or the most dominant.

The decision maker gave measurement weight for each criteria as follow: C1 = 25%; C2 = 25%; C3 = 25%; and C4 = 25%. If the data were as follows.

Journal of Theoretical and Applied Information Technology
15th July 2018. Vol.96. No 13
© 2005 – ongoing JATIT & LLS
ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Table 1: Data of the Result of E-Learning Evaluation in Universitas Pendidikan Ganesha with SAW Method

Alternative	Criteria			
	Context	Input	Process	Product
Program Conditions	92	93	84	90
Completeness of Digital Learning Material	90	90	85	86
Administrator Readiness	85	83	82	80
User Readiness	80	79	79	78

Answer:
Category of each evaluation component:
a. *Context* component is benefit criteria.
b. *Input* component is benefit criteria.
c. *Process* component is benefit criteria.
d. *Product* component is benefit criteria.

Normalization:

$$r_{11} = \frac{92}{\max\{92;90;85;80\}} = \frac{92}{92} = 1.000$$
$$r_{21} = \frac{90}{\max\{92;90;85;80\}} = \frac{90}{92} = 0.978$$
$$r_{31} = \frac{85}{\max\{92;90;85;80\}} = \frac{85}{92} = 0.924$$
$$r_{41} = \frac{80}{\max\{92;90;85;80\}} = \frac{80}{92} = 0.870$$
$$r_{12} = \frac{93}{\max\{93;90;83;79\}} = \frac{93}{93} = 1.000$$
$$r_{22} = \frac{90}{\max\{93;90;83;79\}} = \frac{90}{93} = 0.968$$
$$r_{32} = \frac{74}{\max\{93;90;83;79\}} = \frac{83}{93} = 0.892$$
$$r_{42} = \frac{83}{\max\{93;90;83;79\}} = \frac{79}{93} = 0.849$$
$$r_{13} = \frac{84}{\max\{84;85;82;79\}} = \frac{84}{85} = 0.988$$
$$r_{23} = \frac{85}{\max\{84;85;82;79\}} = \frac{85}{85} = 1.000$$
$$r_{33} = \frac{82}{\max\{84;85;82;79\}} = \frac{82}{85} = 0.965$$
$$r_{43} = \frac{79}{\max\{84;85;82;79\}} = \frac{79}{85} = 0.929$$
$$r_{14} = \frac{90}{\max\{90;86;80;78\}} = \frac{90}{90} = 1.000$$
$$r_{24} = \frac{86}{\max\{90;86;80;78\}} = \frac{86}{90} = 0.956$$
$$r_{34} = \frac{80}{\max\{90;86;80;78\}} = \frac{80}{90} = 0.889$$
$$r_{44} = \frac{78}{\max\{90;86;80;78\}} = \frac{78}{90} = 0.867$$

The result of normalization was then converted into the following matrix.

$$R = \begin{bmatrix} 1.000 & 1.000 & 0.988 & 1.000 \\ 0.978 & 0.968 & 1.000 & 0.956 \\ 0.924 & 0.892 & 0.965 & 0.889 \\ 0.870 & 0.849 & 0.929 & 0.867 \end{bmatrix}$$

Ranking process by using given weight by the decision maker: w = [0.25 0.25 0.25 0.25]. The results are as follows.

$V_1 = (0.25)(1.000) + (0.25)(1.000) + (0.25)(0.988) + (0.25)(1.000) = 0.997$
$V_2 = (0.25)(0.978) + (0.25)(0.968) + (0.25)(1.000) + (0.25)(0.956) = 0.975$
$V_3 = (0.25)(0.924) + (0.25)(0.892) + (0.25)(0.965) + (0.25)(0.889) = 0.917$
$V_4 = (0.25)(0.870) + (0.25)(0.849) + (0.25)(0.929) + (0.25)(0.867) = 0.879$

The highest score was in V_1, and then followed by V_2, V_3, and V_4. It means that the most dominant/main aspect which influences the success of digital library program in Universitas Pendidikan Ganesha was program condition. Next, it is followed by other aspects namely: completeness of digital learning material, administrator readiness, and user readiness.

3. RESEARCH METHODOLOGY

3.1 Research Design

There were two approaches used in this study, namely: (1) qualitative approach with exploration method to identify tourism objects in Buleleng Regency which were potential to be developed as sports tourism; and (2) evaluative approach by using the *goal-oriented* model based on *SAW* method which was used to determine the most potential tourism object to be sports tourism and to map all tourism objects which were potential to be sports tourism started from the highest into the lowest potential.

3.2 Research Sample

The samples were chosen by using purposive are sampling, because tourism objects in Buleleng Regency are spread from the west to the east. Three zones division was used as the basis for taking a sample of the tourism object, which was *Air Sanih* in Kubutambahan District, Lovina in Banjar District, and *Pemuteran Village* in Gerokgak District. Subjects of this study were small business owners in sports tourism industry (land, water, and aerospace) in those three districts of Buleleng Regency. Samples of the subject were chosen

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

purposively on tourism object location which required the condition and represented the aspects of observation and evaluation related to sports tourism.

3.3 Technique of Data Collection

Data collection techniques of this study were observation, interview, questionnaires, and documentation.

3.4 Research Location

The location of this research at Kabupaten Buleleng.

3.5 Data Analysis

The technique used in this study in analyzing the data was qualitative descriptive to analyze the data of all tourism objects in Buleleng Regency which were potential to be used as sports tourism, while quantitative descriptive analysis was used to analyze data of calculation to determine the most potential or dominant tourism object to be used as sports tourism started from the highest into the lowest category.

4. RESULTS AND DISCUSSION

4.1 Description of Tourism Objects which are Potential to be Sport Tourism

There are some tourism objects in Buleleng Regency which are potential to be used as sports tourism, as explained below.

a. Air Sanih

Tourism object of *Air Sanih* is located in Kubutambahan District, exactly in Yeh Sanih village of Buleleng Regency. The location is 17 kilometers from downtown is not very difficult to find by the tourists who want to visit this place because it is precisely located beside the main road which connecting Buleleng and Karangasem regencies.

One of tourism potential attractions in this place is the natural spring water which is accommodated in a big natural pool. The water of this pool is so natural and different with other pools which contain chlorine with the pungent smell. Other attraction of this place is the astonishing pool stretching to the sea, so the visitors can enjoy the sea view while swimming in the pool.

Access to *Air Sanih* is very good because it is beside the main road, although public transportation facility is rare, but the tourists can use private transportation or rent vehicle. Around the tourism object, there are many hotels and villas to be rented. The distance of the hotels or villas is close so that the tourism object can be reached by foot. This place is also suitable for the family gathering because the pool is structured for children and adults.

Air Sanih tourism object is managed privately by the traditional village of Yeh Sanih. Yeh Sanih traditional village is a part of Bukti Official Village which is consisted of Bukti traditional village and YehSanih traditional village. Based on the interview conducted by the researchers to people's figure of YehSanih village Mr. Gede Wardana (Headman of Bukti village) stated that "The role of traditional village is very important here, in term of human resources, the employees are local people. It gives good feedback for the economy of local people. All rules and problems are adapted and solved based on the existing local customs".

Mr. Gede Wardana also said that although the pool is significantly attractive for tourists, butBukti Village manages to develop sports tourism attraction such as snorkeling and diving. This statement is supported by the implementation of coral reef and coral reef cultivation by local people. It is hoped that the coral reef will grow properly and able to attract more tourists to their village so it will positively affect the local economy.

The view of *Air Sanih* can be seen in the following Figure 1 [78].

Figure 1: Air Sanih

b. Lovina Beach

Lovina Beach is one of North Bali tourism destinations. It is located 10 Km western of Singaraja Town, exactly located in Kali Bukbuk Village of Buleleng Regency. It has exotic black sand and attractively interesting to visit, as well as the perfect place for sunbathing. Its calm wave is safe for the visitors to swim.

This north-coast Bali beach has another tourism activity such as wild dolphin's attraction in the sea, coral garden, *Lovina* festival which is held annually in September. Based on our interview with Mr. I Ketut Suka (Headman of Kalibukbuk village) stated that besides dolphin attraction and coral garden, there is *Lovina* Festival as another tourism activity as the annual event. This festival was proposed by

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Local Government of Buleleng with some supports of tourism stakeholders in Buleleng which has a purpose to develop hospitality industry in Buleleng Regency.

Lovina Festival accommodates many attractions, entertainments, culinary, art and unique cultural products of Buleleng. *Lovina* Festival has been held twice on the first time was on September, 25th 2014 until September, 27th 2014 which was continued with Sail Indonesia 2014 in *Lovina* Beach, Kalibukbuk Village by presenting: a) Sampi Gerumbungan Competition; b) Catching duck competition, and c). Pillow Battle Competition.

The second *Lovina* Festival was held on September, 27th 2015 until October, 1st 2015 by presenting: a) Sampi Gerumbungan Competition; b). Kite Competition; c) 5K Run Competition; d) Sailboat Competition, and e) Traditional Game of Megangsing.

Dolphin attraction can be enjoyed in the morning at 06.00-08.00 a.m. local time. The access is easy because there are fishermen boats that can be rented for 75.000 IDR/person. The tourists will be taken around 1-2 Km into the sea by the fishermen to watch the dolphin. The tourists will be taken sailing around to watch the dolphin attraction around one hour in the sea. After enjoying the dolphin attraction, the tourists will not be taken directly to the coast, but they will be sailed to another attraction, namely Underwater Garden. There, the tourists are invited to enjoy the beauty of coral reef with so many colorful small fish. Besides enjoying the coral reef from the boat, the tourists can also do snorkeling and swimming to get closer to the coral reef.

Lovina area is also occupied by much well-managed transportation and accommodation. The restaurant and hotels are providing affordable price and delicious food. Some hotels also provide trained dolphin attraction. There is also art market which provides various Balinese clothing and *Lovina* merchandises.

The role of a traditional village has significantly supported the tourism development of *Lovina*. It cannot be separated from the enthusiasm of local people who keep and preserve the environment. The development of *Lovina* as a tourism destination is significantly improving the local economy. It can be seen from the number of hotels, motel, and restaurant in this area which employ local people. In term of developing, promoting, and solving problems the tourism stakeholders always coordinate with the village official and adjust the rules with the existing local customs in Kalibukbuk village. The display of *Lovina* Beach can be seen in the following Figure 2 [79].

Figure 2: Lovina Beach

c. *Pemuteran Village*

Pemuteran Village is located in Gerokgak District of Buleleng Regency around 55 Km from Singaraja Town. This small village is precisely located on the north-west coast of Bali. It is located 15 Km from West Bali National Park which has many marine tourism attractions. Different from other tourism destination with their city attraction, *Pemuteran Village* offers tranquility and peaceful village atmosphere. Besides offering village tranquility which is appropriate for mediation, *Pemuteran village* also offers marine tourism attraction. Some tourism events that can be done in this village are snorkeling, diving, coral view from the glass boat, or sunbathing on white sand.

Pemuteran area is also well-known as the marine conservation area for the world biggest artificial coral reef of "Biorock". Tourists who love to dive will be offered word class Sea Garden located on Menjangan Island which is 15 minutes boating from *Pemuteran*. The divers will be astonished by the underwater temples in this diving site. The tourists can reach this place by renting boat and diving into 30-40 meters underwater. Snorkeling is usually done not far from the coast, which is offering amazing coral reef.

The success of *Pemuteran Village* as marine tourism destination cannot be separated from the active involvement of the local people in developing *Pemuteran* as a tourism destination. Through Karang Lestari Foundation, the people are united to cultivate coral reef and transform the wasted-*Pemuteran Village* to be a place worth to be visited.

Tourism accommodations such as hotel and restaurant are easy to find there. The beach is close

Journal of Theoretical and Applied Information Technology
15th July 2018. Vol.96. No 13
© 2005 – ongoing JATIT & LLS
ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

to those hotels are tourists are usually walking to the beach. The business owner still employs local people in hotels and restaurants, as well as the diving guides, are mostly local people. For tourists who want to feel the village atmosphere directly can rent home stay of the local people as the living place there.

The success of *Pemuteran Village* as the tourism destination has a positive contribution to the local economy. The outstanding role of local customs makes the space and location of the tourism destination comfortable and well-ordered. All problems are solved based on the approach of local customs. The display of *Pemuteran Village* can be seen in the following Figure 3 [80].

Figure 3: Pemuteran Village

4.2 Calculation of Determining the Highest Potential Tourism Object to be Sports Tourism in Buleleng Regency

Based on this study result, it was found that there were three high potential tourism objects in Buleleng Regency to be sports tourism, but from these three tourism objects, it should be determined which tourism object was the most dominant to be sports tourism through accurate and valid calculation by using *SAW* method. Some criteria used as the basis to calculate *SAW* method in determining the most dominant tourism object were criteria used in *goal-oriented* evaluation model to evaluate appropriate tourism object to be sports tourism, such as 1) sports potency, 2) people participation in sports tourism development, 3) local people empowerment, 4) contribution of sports tourism activity upon local people and 5) potency level of sports tourism.

Based on the result of this study, it was found data of tourism objects which were potential to be sports tourism based on five criteria of *goal-oriented* evaluation on purpose to evaluate proper tourism object to be sports tourism in Buleleng Regency. The data of tourism object can be seen in the following Table 2.

Table 2: Data of Potential Tourism Objects in Buleleng Regency to be Sports Tourism based on Five Criteria of Goal-Oriented Evaluation

Tourism Object	Criteria				
	Sport Potency (C_1)	People Participation in Developing Sport Tourism (C_2)	Local People Empowerment (C_3)	Contribution of Sport Tourism Activity upon Local People (C_4)	Potency Level of Sport Tourism (C_5)
Air Sanih	26 (intermediate)	23 (intermediate)	31 (intermediate)	17 (high)	97 (intermediate)
Lovina Beach	37 (high)	30 (high)	36 (high)	20 (high)	123 (high)
Pemuteran Village	34 (high)	25 (intermediate)	42 (high)	21 (high)	122 (high)

Evaluation weight for each criterion given by evaluator as follows: C_1 = 20%; C_2 = 20%; C_3 = 20%; C_4 = 20%; and C_5 = 20%.

Validation of evaluation scores for each criterion shown in Table 2 follows the categorization as follows:

- Sport Potency (C_1):
  13.00 – 21.67 = low
  21.68 – 30.35 = intermediate
  30.36 – 39.03 = high
- People Participation in Developing Sport Tourism (C_2):
  11.00 – 18.33 = low
  18.34 – 25.67 = intermediate
  25.68 – 33.01 = high
- Local People Empowerment (C_3)
  14.00 – 23.33 = low
  23.34 – 32.67 = intermediate
  32.68 – 42.00 = high
- Contribution of Sport Tourism Activity upon Local People (C_4)
  7.00 – 11.66 = low
  11.67 – 16.33 = intermediate
  16.34 – 21.00 = high
- Potency Level of Sport Tourism (C_5)
  5.00 – 75.00 = low
  76.00 – 106.00 = intermediate
  107.00 – 137.00 = high

Based on the data shown in Table 2, so the calculation process of determining the most dominant tourism object chosen as sports tourism to

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

use *SAW* method can be done by the following steps:

1) Normalization Step

Based on the data in Table 2, it can be done normalization process by a consideration that evaluation criteria started from C_1 until C_5 is benefited criteria, so the calculation as follows.

$$r_{11} = \frac{26}{\max\{26;37;34\}} = \frac{26}{37} = 0.703$$

$$r_{21} = \frac{37}{\max\{26;37;34\}} = \frac{37}{37} = 1.000$$

$$r_{31} = \frac{34}{\max\{26;37;34\}} = \frac{34}{37} = 0.919$$

$$r_{12} = \frac{23}{\max\{23;30;25\}} = \frac{23}{30} = 0.767$$

$$r_{22} = \frac{30}{\max\{23;30;25\}} = \frac{30}{30} = 1.000$$

$$r_{32} = \frac{25}{\max\{23;30;25\}} = \frac{25}{30} = 0.833$$

$$r_{13} = \frac{31}{\max\{31;36;42\}} = \frac{31}{42} = 0.738$$

$$r_{23} = \frac{31}{\max\{31;36;42\}} = \frac{36}{42} = 0.857$$

$$r_{33} = \frac{42}{\max\{31;36;42\}} = \frac{42}{42} = 1.000$$

$$r_{14} = \frac{17}{\max\{17;20;21\}} = \frac{17}{21} = 0.809$$

$$r_{24} = \frac{20}{\max\{17;20;21\}} = \frac{20}{21} = 0.952$$

$$r_{34} = \frac{21}{\max\{17;20;21\}} = \frac{21}{21} = 1.000$$

$$r_{15} = \frac{97}{\max\{97;123;122\}} = \frac{97}{123} = 0.789$$

$$r_{25} = \frac{31}{\max\{97;123;122\}} = \frac{123}{123} = 1.000$$

$$r_{35} = \frac{122}{\max\{97;123;122\}} = \frac{122}{123} = 0.992$$

Those normalization results then converted to the following matrix form.

$$R = \begin{bmatrix} 0.703 & 0.767 & 0.738 & 0.809 & 0.789 \\ 1.000 & 1.000 & 0.857 & 0.952 & 1.000 \\ 0.919 & 0.833 & 1.000 & 1.000 & 0.992 \end{bmatrix}$$

2) Ranking Process

Based on the result of normalization and weighing given by evaluator on each evaluation criteria which was 20%, so the ranking process can be calculated as follows.

$V_1 = (0.20)(0.703) + (0.20)(0.767) + (0.20)(0.738) + (0.20)(0.809) + (0.20)(0.789) = 0.761$

$V_2 = (0.20)(1.000) + (0.20)(1.000) + (0.20)(0.857) + (0.20)(0.952) + (0.20)(1.000) = 0.962$

$V_3 = (0.20)(0.919) + (0.20)(0.833) + (0.20)(1.000) + (0.20)(1.000) + (0.20)(0.992) = 0.949$

3) Making Decision

Based on the ranking process results, it is effectively seen that the highest score was in V2, so the most dominant potential tourism object to be sports tourism in Buleleng Regency was *Lovina Beach*.

4.3 Mapping Potential Tourism Object to be Sports Tourism in Buleleng Regency

Based on the above ranking process, so it can be determined the mapping of potential tourism object to be sort tourism based on quality level from the highest category until the lowest category which can be seen in the following Table 3.

Table 3: The Result of Mapping Potential Tourism Object to be Sports Tourism in Buleleng Regency

Tourism Object	Mapping Rank	Category
Air Sanih	III	Lowest
Lovina Beach	I	Highest
Pemuteran Village	II	Intermediate

This study is the answer of obstacle found in the previous research conducted in 2013 by Sudiana which could not yet show accurately the calculation process of determining the most potential tourism object to be sports tourism. This present study is a new innovation as the answer of obstacle found in research in 2009 conducted by Danasaputra which could not explain the way how to determine the mapping of tourism object that can be developed as sports tourism.

The difference of this study with the previous research which is the background of this study is this study results are able to present a new innovation in the use of goal-oriented evaluation model based on SAW method, so able to present accurate calculation in determining the mapping of tourism object that can be used as sport tourism, from the highest category to the lowest. But, previous researches conducted by Sudiana and Danasaputra have not been able to show accurate calculations starting from the highest down to the lowest in mapping the tourism activity that can be used as sports tourism.

The constraints or limitations found in this study was the calculation limited only in 5 criteria of *goal-oriented* evaluation model, because it was assumed that no new criteria have been found as a determinant factor in the selection of tourist objects that can be used as sports tourism.

5. CONCLUSIONS

Generally, this research has provided an overview of tourism object in Buleleng Regency

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which has the opportunity to become sports tourism such as Air Sanih, Lovina Beach, and Pemuteran Village. Based on the evaluation using goal-oriented evaluation model based on SAW method, it has been obtained accurate calculation results in determining the most dominant or high-potential tourist activity to be sports tourism, namely Lovina Beach. Also, through the calculation of SAW method also obtained mapping results of existing tourist activity in Buleleng Regency ranging from the highest category to the lowest category to be sports tourism starting from Lovina Beach, Pemuteran Village, until down to Air Sanih.

The new innovation that can be done to solve the constraints or limitations of this study is to conduct research in the future based on more intensive data collection techniques through interviews and observations in more depth to the parties or related institution and understand about tourism in the area of Buleleng Regency to obtain an overview about other new criteria which can influence the determining of potential tourism object to be sports tourism.

ACKNOWLEDGMENTS

The researchers send their gratitude to all parties who helped to conduct this study so that it can be finished on time.

REFERENCES

[1] K. Aspinwall, M. Pedler, and P. Radcliff,"Leadership Development through Virtual Action Learning: An Evaluation", *Action Learning: Research and Practice*, Vol. 15, No. 1, 2018, pp. 40-51.

[2] A. Samperiz, and J. Herrero, "Evaluation of a Summer Camp Environmental Education Program in Spain", *Applied Environmental Education and Communication*, Vol. 17, No. 1, 2018, pp. 79-90.

[3] G.A. Mahayukti, N. Dantes, I.M. Candiasa, A.A.I.N. Marhaeni, I.N. Gita, and D.G.H. Divayana, "Computer-based Portfolio Assessment to Enhance Students' Self-Regulated Learning", *Journal of Theoretical and Applied Information Technology,* Vol. 96, No. 8, 2018, pp. 2351- 2360.

[4] C. Koedel, J. Li, M.G. Springer, and L. Tan, "The Impact of Performance Ratings on Job Satisfaction for Public School Teachers", *American Educational Research Journal*, Vol. 54, No. 2, 2017, pp. 241-278.

[5] I.M. Ardana, I.P.W. Ariawan, and D.G.H. Divayana, "Measuring the Effectiveness of BLCS Model (Bruner, Local Culture, Scaffolding) in Mathematics Teaching by using Expert System-Based CSE-UCLA", *International Journal of Education and Management Engineering*, Vol. 7, No. 4, 2017, pp. 1-12.

[6] J. Edmonstone, "The Challenge of Evaluating Action Learning", *Action Learning: Research and Practice*, Vol. 12, No. 2, 2015, pp. 131-145.

[7] J. Cincera, and P. Simonova, "I Am Not a Big Man: Evaluation of the Issue Investigation Program", *Applied Environmental Education and Communication*, Vol. 16, No. 2, 2017, pp. 84-92.

[8] S.W. Han, F. Borgonovi, and S. Guerriero,"What Motivates High School Students to Want to Be Teachers? The Role of Salary, Working Conditions, and Societal Evaluations about Occupations in a Comparative Perspective", *American Educational Research Journal*, Vol. 55, No. 1, 2018, pp. 3-39.

[9] I.P.W. Ariawan, D.B. Sanjaya, and D.G.H. Divayana, "An Evaluation of the Implementation of Practice Teaching Program for Prospective Teachers at Ganesha University of Education Based on CIPP-Forward Chaining", *International Journal of Advanced Research in Artificial Intelligence*, Vol. 5, No. 2, 2016, pp. 1-5.

[10] B.Y. Cho, L. Woodward, D. Li, and W. Barlow, "Examining Adolescents' Strategic Processing during Online Reading with a Question-Generating Task", *American Educational Research Journal*, Vol. 54, No. 4, 2017, pp. 691-724.

[11] S.G. Panezai, and L.A. Channa, "Pakistani Government Primary School Teachers and the English Textbooks of Grades 1-5: A Mixed Methods Teachers'-Led Evaluation", *Cogent Education*, Vol. 4, No. 1, 2017, pp. 1-18.

[12] D.B. Sanjaya, and D.G.H. Divayana, "An Expert System-Based Evaluation of Civics Education as a Means of Character Education Based on Local Culture in the Universities in Buleleng", *International Journal of Advanced Research in Artificial Intelligence*, Vol. 4, No. 12, 2015, pp. 17-21.

[13] L. Campanotta, P. Simpson, and J. Newton, "Program Quality in Leadership Preparation Programs: An Assessment Tool", *Education*, Vol. 138, No. 3, 2018, pp. 219-228.

[14] T. Ainsa, "SOS: Observation, Intervention, and Scaffolding towards Successful Online

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Students", *Education*, Vol. 138, No. 1, 2017, pp. 1-8.

[15] I.N. Jampel, I.W. Lasmawan, I.M. Ardana, I.P.W. Ariawan, I.M. Sugiarta, and D.G.H. Divayana, "Evaluation of Learning Programs and Computer Certification at Course Institute in Bali Using CSE-UCLA Based on SAW Simulation Model", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 24, 2017, pp. 6934-6949.

[16] F.L. Huang, "Using Instrumental Variable Estimation to Evaluate Randomized Experiments with Imperfect Compliance", *Practical Assessment, Research & Evaluation*, Vol. 23, No. 2, 2018, pp. 1-8.

[17] M. Brink, and D.E. Bartz, "Effective Use of Formative Assessment by High School Teachers", *Practical Assessment, Research & Evaluation*, Vol. 22, No. 8, 2017, pp. 1-10.

[18] D.G.H. Divayana, A. Adiarta, and I.B.G.S. Abadi, "Uji Coba Rancangan Model CSE-UCLA Yang Dimodifikasi Dengan Metode Weighted Product dan Validasi Instrumen Evaluasi Layanan Perpustakaan Digital Pada Perguruan Tinggi Komputer di Bali", *Seminar Nasional Pendidikan Teknik Informatika Ke-8*, 2017, pp. 28-34.

[19] C.B. Mapitsa, and L. Khumalo, "Diagnosing monitoring and evaluation capacity in Africa", *African Evaluation Journal*, Vol, 6, No. 1, 2018, pp. 1-10.

[20] D.G.H. Divayana, and G.A.D. Sugiharni, "Evaluasi Program Sertifikasi Komputer Pada Universitas Teknologi Indonesia Menggunakan Model *CSE-UCLA*", *Jurnal Pendidikan Indonesia*, Vol. 5, No. 2, 2016, pp. 865-872.

[21] A.N. Muammar, J. Widodo, and Sulhadi, "Evaluation of Zakat Management Program in the Badan Amil Zakat National of Banten Province", *Journal of Educational Research and Evaluation*, Vol. 7, No. 1, 2018, pp. 19-28.

[22] M.Z.I. Sumual, and M. Ali, "Evaluation of Primary School Teachers' Pedagogical Competence in Implementing Curriculum", *Journal of Education and Learning (EduLearn)*, Vol. 11, No. 3, 2017, pp.343-350.

[23] D.G.H. Divayana, "Evaluasi Pemanfaatan E-Learning Menggunakan Model CSE-UCLA", *Jurnal Cakrawala Pendidikan*, Vol. 36, No. 2, 2017, pp. 280-289.

[24] S. Liu, X. Xu, and J.H. Stronge, "Chinese Middle School Teachers' Preferences Regarding Performance Evaluation Measures", *Educational Assessment, Evaluation and Accountability*, Vol. 28, No. 2, 2016, pp. 161-177.

[25] D.G.H. Divayana, I.M. Ardana, and I.P.W. Ariawan, "Measurement of Effectiveness of A Lecturer in Transferring Algebra Knowledge Through of Multimedia Facilities by Using Certainty Factor-Formative-Summative Model", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 9, 2017, pp. 1963-1973.

[26] M.M. Finucane, I. Martinez, and S. Cody, "What Works for Whom? A Bayesian Approach to Channeling Big Data Streams for Public Program Evaluation", *American Journal of Evaluation*, Vol. 39, No. 1, 2018, pp. 109-122.

[27] I.N. Suandi, I.B. Putrayasa, and D.G.H. Divayana, "Compiling a Dictionary of Loan Words in Balinese: The Evaluation Result of Effectiveness Testing in The Field Aided by Mobile Technology", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 14, 2017, pp. 3186-3195.

[28] K. Madigan, R.W. Cross, K. Smolkowski, and L.A. Strycker, "Association Between Schoolwide Positive Behavioural Interventions and Supports and Academic Achievement: A 9-Year Evaluation", *Educational Research and Evaluation*, Vol. 22, No. 7, 2016, pp. 402-421.

[29] D.G.H. Divayana, A. Adiarta, and I.B.G.S. Abadi, "Development of CSE-UCLA Evaluation Model Modified by Using Weighted Product in Order to Optimize Digital Library Services in Higher Education of Computer in Bali", *Jurnal Pendidikan Vokasi*, Vol. 7, No. 3, 2017, pp. 288–303.

[30] B.T. Erford, G. Bardhoshi, K. Duncan, S. Voucas, and E. Dewlin, "The Self-Evaluation Scale-Self-Report (SES-S) Version: Studies of Reliability and Validity", *Measurement and Evaluation in Counseling and Development*, Vol. 50, No. 1, 2017, pp. 27-34.

[31] G. Jin, M. Tu, T.H. Kim, J. Heffron, and J. White, "Evaluation of Game-Based Learning in Cybersecurity Education for High School Students", *Journal of Education and Learning (EduLearn)*, Vol. 12, No. 1, 2018, pp. 150-158.

[32] I.B.P. Arnyana, I.W. Sadia, I.K. Suma, and D.G.H. Divayana, "Determination of Effectiveness of Evaluation Results on School Culture and Character of Junior High School

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Students Using Character Assessment Instruments with The Local Wisdom of Bali Based on Mobile Phone", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 20, 2017, pp. 5348-5359.

[33] K. Wotela, "A Proposed Monitoring and Evaluation Curriculum Based on A Model That Institutionalizes Monitoring and Evaluation", *African Evaluation Journal*, Vol. 5, No.1, 2017, pp. 1-8.

[34] D.G.H. Divayana. Evaluasi Program Perpustakaan Digital Berbasis Sistem Pakar pada Universitas Teknologi Indonesia. Jakarta: Universitas Negeri Jakarta, 2016.

[35] A.A. Bichi, H.H. Hafiz, and S.A. Bello, "Evaluation of Northwest University, Kano Post-Utme Test Items Using Item Response Theory", *International Journal of Evaluation and Research in Education*, Vol. 5, No. 4, 2016, pp. 205-270.

[36] T.S. Prihatiningsih, and N. Qomariyah, "Evaluation of A Problem Based Learning Curriculum Using Content Analysis", *International Journal of Evaluation and Research in Education*, Vol. 5, No. 3, 2016, pp. 205-210.

[37] D.G.H. Divayana, D.B. Sanjaya, A.A.I.N. Marhaeni, and I.G. Sudirtha, "CIPP Evaluation Model Based on Mobile Phone in Evaluating the Use of Blended Learning Platforms at Vocational Schools in Bali", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 9, 2017, pp. 1983-1995.

[38] M.L. Donaldson, and J.P. Papay, "An Idea Whose Time Had Come: Negotiating Teacher Evaluation Reform in New Haven, Connecticut", *American Journal of Education*, Vol. 122, No.1, 2015, pp. 39-70.

[39] D.G.H. Divayana, and D.B. Sanjaya, "Mobile Phone-Based CIPP Evaluation Model in Evaluating the Use of Blended Learning at School in Bali", *International Journal of Interactive Mobile Technologies*, Vol. 11, No. 4, 2017, pp. 149-159.

[40] V. Cornelius, L. Wood, and J. Lai, "Implementation and Evaluation of a Formal Academic-Peer-Mentoring Programme in Higher Education", *Active Learning in Higher Education*, Vol. 17, No. 3, 2016, pp. 193-205.

[41] Q. Cutts, J. Robertson, P. Donaldson, and L. O'Donnell, "An evaluation of A Professional Learning Network for Computer Science Teachers", *Computer Science Education*, Vol. 27, No. 1, 2017, pp. 30-53.

[42] D.G.H. Divayana, B.I. Sappaile, I.G.N. Pujawan, I.K. Dibia, L. Artaningsih, I.M. Sundayana, and G.A.D. Sugiharni, "An Evaluation of Instructional Process of Expert System Course Program by Using Mobile Technology-based CSE-UCLA Model", *International Journal of Interactive Mobile Technologies*, Vol. 11, No. 6, 2017, pp. 18-31.

[43] S. Hepplestone, I. Glover, B. Irwin, H.J. Parkin, "Setting out the Role of Feedback in the Assessment Process through Both the Student and Tutor Perspective", *Practitioner Research in Higher Education*, Vol. 10, No. 1, 2016, pp. 81-90.

[44] D.G.H. Divayana, "Utilization of CSE-UCLA Model in Evaluating of Digital Library Program Based on Expert System at Universitas Teknologi Indonesia: A Model for Evaluating of Information Technology-Based Education Services", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 15, 2017, pp. 3585-3596.

[45] J. Southall, and H. Wason, "Evaluating the Use of Synoptic Assessment to Engage and Develop Lower Level Higher Education Students within a Further Education Setting", *Practitioner Research in Higher Education*, Vol. 10, No. 1, 2016, pp. 192-202.

[46] D. Opposs, "Whatever Happened to School-Based Assessment in England's GCSEs and A Levels?", *Perspectives in Education*, Vol. 34, No. 4, 2016, pp. 52-61.

[47] D.G.H. Divayana, "Penggunaan Model CSE-UCLA Dalam Mengevaluasi Kualitas Program Aplikasi Sistem Pakar", *SNATIA*, 2015, pp.165-168.

[48] S. Utari, and Djukri, "Biology learning evaluation model in senior high schools", *Jurnal Penelitian dan Evaluasi Pendidikan*, Vol. 21, No. 1, 2017, pp. 65-79.

[49] D.G.H. Divayana, A.A.I.N. Marhaeni, N. Dantes, I.B.P. Arnyana, and W. Rahayu, "Evaluation of Blended Learning Process of Expert System Course Program by Using CSE-UCLA Model Based on Mobile Technology", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 13, 2017, pp. 3075-3086.

[50] J. Zumbach, and J. Funke, "Influences of mood on academic course evaluations", *Practical Assessment, Research & Evaluation*, Vol. 19, No. 4, 2014, pp. 1-12.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

[51] D.G.H. Divayana, A. Adiarta, and I.B.G.S. Abadi, "Initial Draft of CSE-UCLA Evaluation Model Based on Weighted Product in Order to Optimize Digital Library Services in Computer College in Bali", *IOP Conference Series: Materials Science and Engineering*, Vol. 296, 2018, pp. 12-17.

[52] C.H. Prinsloo, and J.C. Harvey, "The Viability of Individual Oral Assessments for Learners: Insights Gained from Two Intervention Evaluations", *Perspectives in Education*, Vol. 34, No. 4, 2016, pp. 1-14.

[53] D.G.H. Divayana. "Evaluasi Pelaksanaan Blended Learning di SMK TI Udayana Menggunakan Model CSE-UCLA", *Jurnal Pendidikan Vokasi*, Vol. 7, No. 1, 2017, pp. 64-77.

[54] L. Abrams, D. Varier, and L. Jackson, "Unpacking Instructional Alignment: The Influence of Teachers' Use of Assessment Data on Instruction", *Perspectives in Education*, Vol. 34, No. 4, 2016, pp. 15-28.

[55] D.G.H. Divayana, A.A.G. Agung, B.I. Sappaile, W. Simatupang, Y. Sastrawijaya, I. M. Sundayana, and G.A.D. Sugiharni, "Utilization of Open Source Technology in Determining of Validity and Reliability of Evaluation Model Instruments Based on ANEKA Values in Order to Evaluate the Quality of Computer Learning", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 20, 2017, pp. 5517-5534.

[56] M.L. Derrington, and J. Kirk, "Linking Job-Embedded Professional Development and Mandated Teacher Evaluation: Teacher as Learner", *Professional Development in Education*, Vol. 43, No. 4, 2017, pp. 630-644.

[57] D.G.H. Divayana, "Evaluasi Program Penanggulangan HIV/AIDS Dengan Model CIPP Berbantuan Komputer", *Konferensi Nasional Sistem & Informatika*, 2015, pp.442-446.

[58] C. Bolyard, "Test-Based Teacher Evaluations: Accountability vs. Responsibility", *Philosophical Studies in Education*, Vol. 46, 2015, pp. 73-82.

[59] F. Hammonds, G.J. Mariano, G. Ammons, and S. Chambers, "Student Evaluations of Teaching: Improving Teaching Quality in Higher Education", *Perspectives: Policy and Practice in Higher Education*, Vol. 21, No. 1, 2017, pp. 26-33.

[60] D.G.H. Divayana, A. Adiarta, and I.B.G.S. Abadi, "Conceptual and Physical Design of Evaluation Program for Optimizing Digital Library Services at Computer College in Bali Based on CSE-UCLA Model Modification with Weighted Product", *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 16, 2017, pp. 3767-3782.

[61] J.P. Comings, J. Strucker, and B. Bell, "Two Reading Assessments for Youth in Alternative Basic Skills and Livelihood Skills Training Programs", *Prospects: Quarterly Review of Comparative Education*, Vol. 47, No. 3, 2017, pp. 229-243.

[62] R. Saunders, "Assessment of Professional Development for Teachers in the Vocational Education and Training Sector: An Examination of the Concerns Based Adoption Model", *Australian Journal of Education*, Vol. 56, No. 2, 2012, pp. 182-204.

[63] B.H. See, S. Gorard, N. Siddiqui, "Can Explicit Teaching of Knowledge Improve Reading Attainment? An Evaluation of the Core Knowledge Curriculum", *British Educational Research Journal*, Vol. 43, No. 2, 2017, pp. 372-393.

[64] P.R. Saucier, B.R. McKim, J.E. Muller, D.M. Kingman, "Assessing Performance and Consequence Competence in a Technology-Based Professional Development for Agricultural Science Teachers: An Evaluation of the Lincoln Electric Welding Technology Workshop", *Career and Technical Education Research*, Vol. 39, No. 2, 2014, pp. 103-118.

[65] S. de Klerk, B.P. Veldkamp, T.J.H.M. Eggen, "A Framework for Designing and Developing Multimedia-Based Performance Assessment in Vocational Education", *Educational Technology Research and Development*, Vol. 66, No. 1, 2018, pp. 147-171.

[66] T. Delahunty, N. Seery, and R. Lynch, "An Evaluation of the Assessment of Graphical Education at Junior Cycle in the Irish System", *Design and Technology Education*, Vol. 17, No. 2, 2012, pp. 9-20.

[67] T. de Jager, M.J. Coetzee, R. Maulana, M. Helms-Lorenz, W. van de Grift, "Profile of South African Secondary-School Teachers' Teaching Quality: Evaluation of Teaching Practices Using an Observation Instrument", *Educational Studies*, Vol. 43, No. 4, 2017, pp. 410-429.

[68] C. O'Keeffe, "Economizing Education: Assessment Algorithms and Calculative Agencies", *E-Learning and Digital Media*, Vol. 14, No. 3, 2017, pp. 123-137.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

[69] J. Yuan, and C. Kim, "The Effects of Autonomy Support on Student Engagement in Peer Assessment", *Educational Technology Research and Development*, Vol. 66, No. 1, 2018, pp. 25-52.
[70] A.K. Reinking, "Increasing Accountability Measures for Early Childhood Teachers Using Evaluation Models: Observation, Feedback, and Self-Assessment", *Current Issues in Education*, Vol. 18, No. 1, 2015, pp. 1-11.
[71] I.K. Sudiana. Pengembangan Model Pemberdayaan Kawasan Danau Buyan Sebagai Ikon *Sport Tourism* Buleleng Bali. Surabaya: Universitas Negeri Surabaya, 2013.
[72] I.K. Sudiana, and N.L.K.A. Arsani. "Pengembangan Model Pemberdayaan Kawasan Danau Buyan Sebagai Ikon Sport Tourism Bali Berlandaskan Tri Hita Karana", Seminar Nasional Riset Inovatif II, 2014, pp. 339-346.
[73] Wirawan. Evaluasi Teori, Model, Standar, Aplikasi, dan Profesi. Jakarta: Rajawali Pers, 2011.
[74] D.G.H. Divayana. Asesmen dan Evaluasi. Singaraja: Undiksha Press, 2017.
[75] S. Eniyati, "Perancangan Sistem Pendukung Pengambilan Keputusan untuk Penerimaan Beasiswa dengan Metode SAW (Simple Additive Weighting)", *Jurnal Teknologi Informasi DINAMIK,* Vol. 16, No.2, 2011, pp. 171-177.
[76] D.G.H. Divayana, and G.A.D. Sugiharni. Sistem Pakar & Sistem Pendukung Keputusan (Buku Ajar Pendidikan Teknik Informatika). Singaraja: Undiksha Press, 2016.
[77] D.G.H. Divayana. Penerapan Konsep Sistem Pakar & Sistem Pendukung Keputusan Dalam Bidang Pendidikan. Singaraja: Undiksha Press, 2017.
[78] Dinas Pariwisata. Wisata Buatan. Singaraja: Dinas Pariwisata Pemerintah Kabupaten Buleleng, 2017.
[79] Dinas Pariwisata. Wisata Alam. Singaraja: Dinas Pariwisata Pemerintah Kabupaten Buleleng, 2017.
[80] Dinas Pariwisata. Wisata Bahari. Singaraja: Dinas Pariwisata Pemerintah Kabupaten Buleleng, 2017.