Website as Digital Marketing Media of Ecotourism Medokan Ayu Mangrove Botanical Gardens in Rungkut District, Surabaya, East Java

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Abstract Medokan Ayu Mangrove Botanical Garden is one of the ecotourism destinations, which is located on the east coast of the city of Surabaya, East Java. This ecotourism is managed by Tourism Awareness Group (Pokdarwis) Medokan Ayu in a conventional way. Before the COVID-19 pandemic, the number of tourist visits was quite a lot, which was more than 100 visitors per week. However, Pokdarwis Medokan Ayu faced problems during the pandemic of COVID-19. The number of visitors to Medokan Ayu Mangrove Botanical Garden decreased by almost 90% especially on weekends during July 2021. This problem could be solved by promoting of the Medokan Ayu Mangrove Botanical Gardens online through the Pokdarwis.id website. This community service aimed to design and implement digital promotion using the concept of Business Model Canvas (BMC). This community service activity was carried out using training methods containing four stages: coordination with partners, training, mentoring, and evaluation. Based on the results of observations, ten Pokdarwis administrators were able to operate the Pokdarwis website by filling content calendar and doing copywriting. This training had a positive response from the partner, especially the administrators, who suggested that the PkM team continue to provide mentoring with website management. The ability of the ten Pokdarwis administrators has also increased as evidenced by the increase and variety of news on the Pokdarwis website, and the implication that the number of website visitors increased to 3,515 by the end of February 2023. The number of visitors to the Medokan Ayu Mangrove Garden from mid-2022 to the end of January 2023 averaged 1,500 visitors per month.

1. INTRODUCTION

The Medokan Ayu Mangrove Botanical Garden is one of the ecotourism on the east coast of the city of Surabaya. This ecotourism is located in Medokan Ayu village, Rungkut sub-district. The geography of the village consists of swamps, ponds, and residential areas. Medokan Ayu village has an area of 729 hectares (Ha) with 16,369 inhabitants (Susanti et al., 2021). The area of Medokan Ayu Mangrove Botanical Garden area is approximately 200 Ha with mangroves (Hutan Mangrove Medokan, 2022). The reason Medokan Ayu Mangrove Botanical Garden can be categorized as ecotourism, support the welfare of local communities, and integrate interpretation and education, which can broaden knowledge and personal experienced ("What is Ecotourism", 2019). Because of this reason, this place is managed by the Medokan Ayu Tourism Awareness Group known as Pokdarwis Medokan Ayu (Yutanto et al., 2023). Pokdarwis is an organization that was formed by the community who had concerned and responsible for tourism in an area and supported the realization of Sapta Pesona (Assidiq et al., 2021).

Pokdarwis Medokan Ayu has been reorganized, so that the Medokan Ayu Mangrove Botanical Gardens has interesting photo spots. The natural nuance of the mangrove forest is maintained so that the combination of the blue sky and green plants becomes an attractive panorama for some tourists. The Medokan Ayu Mangrove Ecotourism is also equipped with water bike tours, a playground for children, and some gazebos equipped with flower gardens and boats to surround the mangrove forest.

Figure **1**. Kebun Raya Mangrove Medokan Ayu

Pokdarwis Medokan Ayu has rearranged this place, hence the Medokan Ayu Mangrove Botanical Gardens has interesting photo spots. The natural nuance of the mangrove forest is maintained, so the combination of blue sky and green trees becomes an attractive view for some tourists (Figure 1). The Medokan Ayu Mangrove Botanical Garden is also equipped with hydro cycles, a children's playground, and some gazebos complemented by flower gardens and boats to go around the mangrove forest.

Pokdarwis Medokan Ayu faced problems during the COVID-19 pandemic. The number of tourists who previously visited this place became small, and even no visitors at all on some days. Based on the information from the Medokan Ayu Pokdarwis management, the average number of tourists was 500 people per month (Yutanto et al., 2023). The highest number of tourists on the weekend was more than 100 on average per week. On weekdays (Monday-Friday), most tourists visit this place in the afternoon. In the pandemic era of 2020 until 2021, the average number of tourists was 200–300 per month, which decreased drastically to 60% (Yutanto et al., 2023). One of Pokdarwis management informed us that the peak of tourist decline occurred on July 2021. The number of visitors decreased mainly on weekends. The average number of visitors in July 2021 was only 20 people, while on the weekdays, there were almost no visitors. The restrictions on tourist numbers caused it. Pokdarwis Medokan Ayu then implemented an open-close visit system considering the Enforcement of Community Activity Restrictions (PPKM) status. However, the number of visitors was still not optimal. The decrease in tourist visit numbers also had impacts on Micro, Small, and Medium Enterprises (MSMEs) around the Medokan Ayu Mangrove ecotourism. Several MSMEs, which were food and souvenir sellers, got a decline in sales turnover of up to 50%. MSME sales turnover entirely depended on the level of tourist visits because, before the COVID-19 pandemic, some MSMEs sold their foods and souvenirs face-to-face with the tourists (Rivani et al., 2021).

Before the COVID-19 pandemic, the management of the Medokan Ayu Mangrove Botanical Garden by Pokdarwis Medokan Ayu was carried out conventionally. Information regarding visiting hours and a series of activities were displayed in the ecotourism area. At the end of 2021, Medokan Ayu Pokdarwis reopened the Medokan Ayu Mangrove Botanical Garden ecotourism. It was based on the ongoing vaccination program for the community and the decrease in COVID-19 cases in Surabaya. However, the number of tourists visiting was still not optimal. Therefore, the management of Pokdarwis Medokan Ayu tried to innovate the management of the Medokan Ayu Mangrove ecotourism and some MSMEs around it through the use of information technology, such as promoting Medokan Ayu Mangrove Botanical Garden digitally.

Based on American Marketing Association, digital marketing is an activity, organization, and process which are facilitated through digital technology to create, communicate and deliver value for customers and other stakeholders (American Marketing Association, 2017). This definition explains that the process of digital marketing is based on technology; hence it is more adaptive (Kannan & Li, 2017). Adaptive marketing process makes digital marketing can be implemented in some studies, specifically on ecotourism digital marketing. Some studies which were related to ecotourism digital marketing revealed that the strategy of using digital marketing could boost the number of visitors because it provided various tourist information and was accompanied by some pictures (Khan et al., 2022). That information and pictures are displayed on media-based technology such as social media, blogs, websites, or search engines. Those media also offer opportunities for communities to promote the natural environment, destination image, and cultural values to tourists. Promotions can be interpreted as an activity that communicates the benefits, and it is part of a promotion as a mixed marketing concept. Promotion can be interpreted as communicating benefits and persuading target customers to buy a product (Kotler & Armstrong, 2021). Promotion by utilizing technology is one of digital promotion, which also gives easiness for ecotourism management to inform the potency of its ecotourism to communities (Tsani et al., 2022; Zulkifli et al., 2021). Targeted digital promotion cannot be separated from the Business Model Canvas (BMC) concept. The BMC is a tool for identifying small business model elements and providing a visual map to record the details of these elements (Carter & Carter, 2020; Osterwalder & Pigneur, 2010; Zoumpoulidis et al., 2021). The working concept of BMC started with segment analysis by segmentation elements followed by value proposition analysis, the promotional media used, potential promotional media, customer relationship management analysis, and digital activities.

The implementation of digital promotion was done through the website of Pokdarwis, Instagram and YouTube as a form of adaptive marketing towards the pandemic

situation. The website would display some information as content that anyone could accesss long as it was connected to the internet (Warmayana, 2018). Informative content creation requires creativity and skill. Therefore, it necessitates informative content creation training. In the case of the target community, one way was by making a digital calendar and doing copywriting as part of Pokdarwis' website operation. Based on the problem faced by Pokdarwis Medokan Ayu and digital marketing studies, this community service aims to promote digitally Medokan Ayu Botanical Gardens through the website and social media through a training method.

2. METHOD

This community service (PkM) activity was conducted online and offline from March to September 2022 using training methods. The training was given to the ten-core Medokan Ayu Mangrove Botanical Gardens management. However, the training was only attended by nine administrators. One of the management members attended due to personal commitments. The ability to operate the Pokdarwis website required a gradual process, so the training must continue with mentoring. However, the member of PkM team could not provide mentoring at any time, so mentoring activities were carried out alternately by PkM team members both online using WhatsApp and direct communication with Pokdarwis management.

The implementation of the activities consists of three stages: the preparation stage, the implementation stage, and the evaluation and mentoring stage. The preparation stage was the first step to gathering information related to the needs and wants of the Medokan Ayu Pokdarwis management. In this stage, the PkM team coordinated with the head of the Pokdarwis Medokan Ayu.

The implementation stage was to build a website for Pokdarwis Medokan Ayu with an online network. The website address is http://Pokdarwis.id as online media. The reach of online media is wider and can be accessed anytime and anywhere without meeting our audience in person (Tsani et al., 2022).

The application is equipped with several features; therefore, the training was carried out twice. The first training was the dissemination of the Pokdarwis.id website, while the second training related to content creation on the Pokdarwis.id website. Website content consists of creating calendars to fill out a series of activities, pictures, videos, and news related to the Medokan Ayu Mangrove Botanical Garden. To create these contents, the copywriting skill was required.

The third stage was mentoring and evaluation. Mentoring was given during website operation training and content creation and copywriting training. The evaluation was carried out to know the continuity of this Community Service activity which has been carried out by the PkM team (Zakaria et al., 2020). The evaluation was done by asking several training participants to complete a questionnaire. The questionnaire used a Likert scale with a scale of five.

3. RESULTS AND DISCUSSION

3.1 Coordination with partners

This PkM activity focused on the core management of the Medokan Ayu Pokdarwis. Coordination with the partner was carried out to obtain the information as the first step for the PkM team to identify and formulate the partner's needs and wants. Based on the coordination of the PkM team at the beginning, it was informed that the core management of Pokdarwis Medokan Ayu needed online media to market the Medokan Ayu Mangrove Botanical Gardens. The PkM team provided solutions by designing a dynamic website, a website whose contents could be managed, including inputting, updating, or deleting content on the website that the administrator can do. The website was designed with a Content Management System/CMS (Warmayana, 2018). The concept used in website design was BMC (Osterwalder & Pigneur, 2010). The website design considered the ease
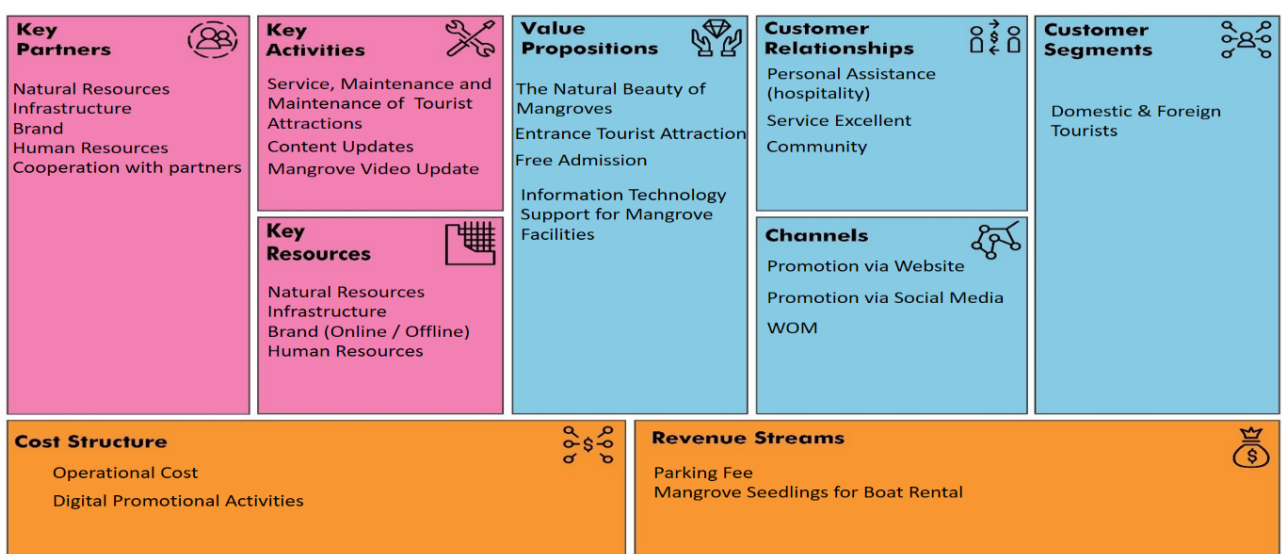

Figure 2 . Mangrove Medokan Ayu Botanical Garden's business model canvas

of operation for Pokdarwis administrators and the ease of finding interesting things for visitors (Tsani et al., 2022). Business model canvas design implemented on the Pokdarwis.id wbsite, listed in Figure 2.

3.2 Training

The first stage of training began with the socialization of the Pokdarwis.id website, followed by operation training of the Pokdarwis.id website. The training was carried out on Saturday, March 26, 2022, at UHW Perbanas Surabaya, Building C, Computer Laboratory Room, fourth floor, in approximately two and a half hours. This training was attended by nine participants who were the core administrator of the Medokan Ayu Pokdarwis. The website has accessed the participants through http://pokdarwis.id/login. The training participants logged in by using the administrator user ID with the keyword Admin@2022. The user ID and password could only be used during training; some participants could register using their own names. Participants who have logged in could access the administrator menu. Pokdarwis Medokan Ayu administrators could only access

the administrator menu. The next page after the participants logged in was access to the features of the Pokdarwis.id application. These features were dashboards, pages, Micro Small Medium Enterprises (MSME) registration, users, news, agendas, organizational structures, galleries, videos, and banners (Figure 3). The Pokdarwis.id website is an integrated and up-to-date system in real-time, either in the form of content, images, or videos; hence it made it easier to promote ecotourism digitally (Warmayana, 2018).

The dashboard features displayed information related to the organized activities, user or MSME registration, and the number of visitors. The registration feature was used by MSMEs owners around the Medokan Ayu ecotourism area for membership activation. The Medokan Ayu Pokdarwis management carried out the registration verification process.

MSMEs owners who have registered and received verification from the Pokdarwis management had access to the MSME features. Thus, the MSMEs owners officially become members of the Medokan Ayu Pokdarwis. The MSME feature also contained data on MSME owners and their businesses.
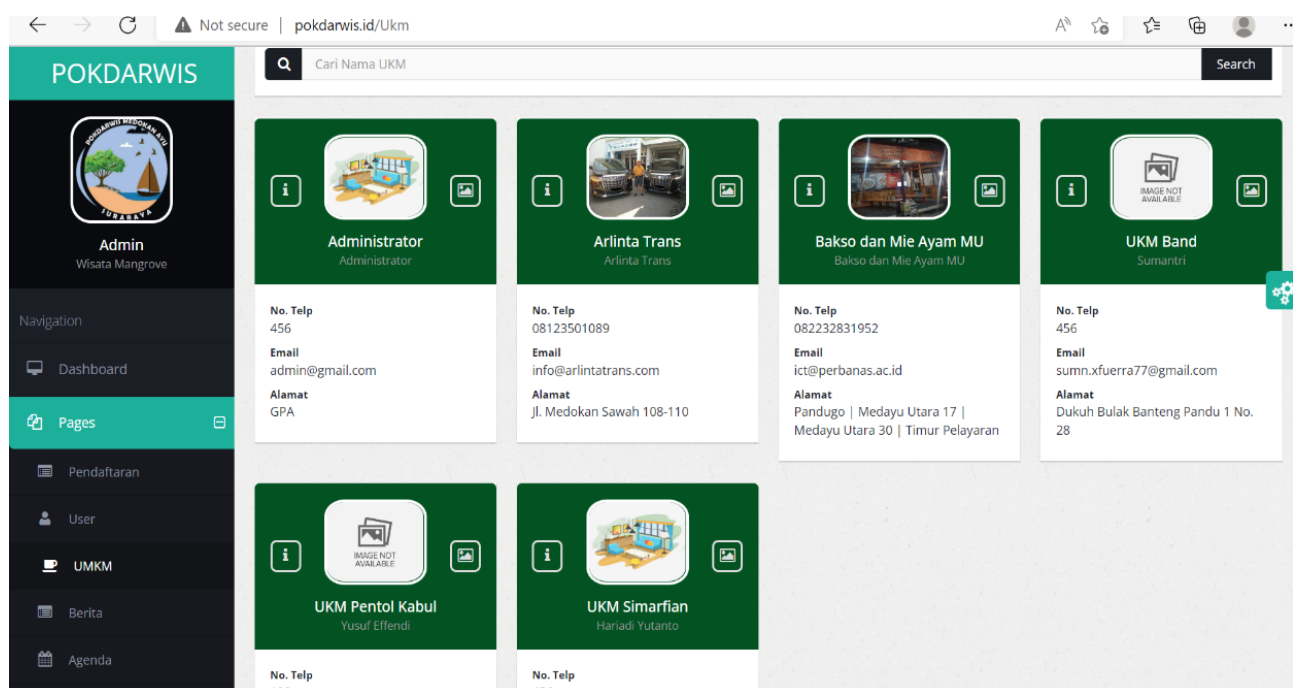

Figure 3 . MSME's feature display

The Medokan Ayu Pokdarwis management could update a number of features, which were news features, photo galleries, videos, and banners. The update of the news feature required filling, which was related to the date. Therefore, it required skills to fill the digital calendar and the photo, video, and banner gallery features. The Pokdarwis.id application displayed Pokdarwis Youtube access through the video feature. Pokdarwis Medokan Ayu's official YouTube social media account was Official Pokdarwis Mangrove. The official Youtube Pokdarwis Mangrove account was expected to increase virtual

(subscribers) and non-virtual visitors. The organizational structure feature showed the management structure of the Medokan Ayu Pokdarwis—the complaint feature work for receiving suggestions and critics from virtual and non-virtual visitors. The submitted suggestions and critics through the Pokdarwis website would be responded to by management. Both organizational structure and complaints features could be managed by the Medokan Ayu Pokdarwis management but did not require calendar management because the system has formatted it automatically. The second training was related to calendar content creation

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 **SELLING** Post video / Photos promoting your products or services	**2** **EDUKASI** Share your expertise so the audience knows what you have dobe	**3** **INSPIRATION** Share inspirational or motivational quotes (Search for a collection of quotes in the Quotes Tab Below)	**4** **INTERACTION** Ask interesting questions to your audience (Search for a collection of questions in the Question Tab Below)	**5** **VIRAL** Choose a viral image from the website membership area	**6** **SELLING** Post videos/photos promoting your products or services
7 **EDUCATION** Sharing common mistakes that audiences in your niche often made	**8** **INSPIRATION** Share inspirational or motivational quotes (Search for a collection of quotes in the Quotes Tab Below)	**9** **INTERACTION** Ask interesting questions to your audience (Search for a collection of questions in the Question Tab Below)	**10** **VIRAL** Choose a viral image from the website membership area	**11** **SELLING** Post videos/photos promoting your products or services	**12** **EDUCATION** Answer frequently asked questions of your audience	**13** **INSPIRATION** Share inspirational or motivational quotes (Search for a collection of quotes in the Quotes Tab Below)
14 **INTERACTION** Ask interesting questions to your audience (Search for a colleciton of questions in the Questions Tab Below)	**15** **VIRAL** Choose a viral image from the website membership area	**16** **SELLING** Post photos/videos promoting your products or services	**17** **EDUCATION** Share what you have learned to improve your business	**18** **INSPIRATION** Share inspirational or motivational quotes (Search for a collection of quotes in the Quotes Tab Below)	**19** **INTERACTION** Ask interesting questions to your audience (Search for a collection of questions in the Question Tab Below)	**20** **VIRAL** Choose a viral image from the website membership area
21 **SELLING** Post photos/videos promoting your products or services	**22** **EDUCATION** Sharing valuable articles in your niche	**23** **INSPIRATION** Share inspirational or motivational quotes (Search for a collection of quoates in the Quotes Tab Below)	**24** **INTERACTION** Ask interesting questions to your audience (Search for a Collection of questions in the Questions Tab Below)	**25** **VIRAL** Choose a viral image from the website membership area	**26** **SELLING** Post photos/videos promoting your products or sevices	**27** **EDUCATION** Sharing stories about your success/struggles/ups and downs in business
28 **INSPIRATION** Share inspirational or motivational quotes (Search for a collection of quotes in the Quotes Tab Below)	**29** **INTERACTION** Ask interesting questions to your audience (Search for a collection of questions in the Question Tab Below)	**30** **VIRAL** Choose a viral image from the website membership area	**31** **SELLING** Post photos/videos promoting your products or services			

Figure 4 . Calendar's Content

Table 1 . The Examples of Quote Content, Question, and Educational Content

Quotes	Questions	Educational
Always five more than expected.	What do you watch on Youtube?	Tell us about your experience until it reached the point of success (…)
Change the way you think, and you will change the world.	What charities do you enjoy doing?	My career path in (…)
Consistency is the key.	What are you most excited about this week?	My favourite (…) book of all time and why (…)
Opportunities exist. You create those opportunities.	What is one thing you hope to achieve this week?	The most difficult event of this week (…) and what is the lesson (…)
Never give up. The beginning is always the hardest.	What is the name of the most beautiful city you have ever visited?	I wish I knew (…) when I first started a business (…)
If you want it, get it.	What is the biggest gift you have ever received?	The four values (...) that I uphold and how I apply them to my business
Your only limit is your imagination.	What is your favourite fact that people don't know?	Three things (…) that I do every day to get specific results
You are amazing. Prove it to yourself today.	Coffee or tea?	The trick I applied to get into the zone (…)
You don't have to be perfect to be amazing.	Have you ever regretted missing an opportunity?	When I failed at (…) and what I learned (…)
Never underestimate the power of focus.	Have you ever made the biggest excuse in your life?	How to fight (…) for the final result (…)

and copywriting on Pokdarwis.id application features. The training took place at the Medokan Ayu Mangrove Botanical Gardens on Saturday, Jul 26, 2022, from 08.00 until 10.00 am and was attended by nine core management of the Medokan Ayu Pokdarwis. The participants logged in through the Pokdarwis.id website and then accessed the news feature. The calendar content creation is listed in Figure 4. Creating content which was displayed on the Pokdarwis website required knowledge of grammar and attractive writing to read, so copywriting training was needed. Digital promotion requires the copywriting skill, so that the promotion can be both attractive and selling (Rivani et al., 2021). Copywriting training covered quote content, questions content and educational content. Some examples of quote content copywriting, question content, and example sentences are are listed in Table 1. The form question content was in the form of light questions that could be asked to the readers. Educational content was in the form of incomplete sentences, whose blanks should be filled by readers.

3.3 Mentoring

Mentoring was provided on the implementation of operation training of the Pokdarwis.id website as well as training on calendar content creation and copywriting training. The mentoring during training was done by guiding the operation of the Pokdarwis.id website, including content inputting, updating, and deletion. Meanwhile, mentoring on calendar content creation and copywriting training was more about composing interesting and selling sentences, but simple. Mentoring was more directed toward making sentences which were not rigid. The PkM kept giving mentoring even though the training activities had been done. Continuous mentoring was carried out, so that the operation of the Pokdarwis.id website could continue in the long term in order to improve the community economy from the tourism sector (Nurhalimah et al., 2021).

3.4 Evaluation

The evaluation was carried out after the training implementation had occurred twice (Amri et al., 2020). The average evaluation score of the implementation of the website operation training on March 26, 2022, was 42.67. The second training, which was related to calendar content and copywriting, had an average evaluation score of 42.78. Evaluations were given to nine participants in the first and second training. Details of the calculation of the results for the first and second training evaluations are listed in Table 2.

Based on Table 2, the average evaluation score of the first training was 42.67, which increased to 42.78 in the second training. The deviation value was 0.11. The two average scores were in the very good category because they were in the range of four of the five measurement scales. Scale one means the training was very poor. Scale two is poor, scale three is acceptable, scale four is good, and scale five is very good. The implementation and mentoring of the PkM team, along with the benefits of the training, got the highest score with a total score of 45. This means that

all participants gave the score of five. The implementation of the training, along with the mentoring and benefits, was considered very good. Some participants had understood the importance of using Pokdarwis.id website as media for promoting ecotourism at the Medokan Ayu Mangrove Botanical Gardens to increase the number of offline and online visitors (Tsani et al., 2022).

Table 2 . Training Evaluation

Evaluation Category	Date	
	March 26, 2022	July 24, 2022
Training Method	41	45
Implementation Coordination	43	43
Implementation and Mentoring	45	44
Training Benefits	45	43
Material Quality	42	42
Material Update	40	42
Material Novelty	43	41
Material Effectiveness	41	40
Speaker Quality	44	45
Average Score	42.67	42.78

The highest score in the second training was on the training method and the quality of the speaker. All participants gave those two items the score of five; hence, the total score was 45. The calendar content and copywriting training were conducted with questions and answers, and then the participants practised it. Based on the total score, the training method and the quality of speakers were considered very good. The speakers were PkM team members who especially had competency in linguistics, business, and information technology. The participants could understand the materials delivered by the speakers, and the training method encouraged participants to be more active and think creatively.

Based on observations of the two training activities that had been organized, there was an increase in the ability to operate the Pokdarwis website, from only two people who were able to operate it to all administrator management being able to operate it. The news administrator on the Pokdarwis website, who initially had no news content, now had a total of to 14 various news stories as a part of promotion of the Medokan Ayu Mangrove Garden. It meant that there was an increase in their ability to create news contents.

The participants wrote their comments about the training implementation on the questionnaire. Their comments include "thank you", "the program was very good", and they expected continuous training. The continuous training was written by most of the participants, which meant that the partnership between UHW Perbanas and its partner could be maintained even though the training had been done by the PkM team. The outcomes of the training were then under the supervision of UHW Perbanas through the Center of Research and Community Service (PPPM).

The impact of the PkM activities was that the ten website administrators had become able to operate Pokdarwis website, as evidenced by increasing and diverse news contents on the website. The variety of news contents have resulted in an increase in the number of website visitors since it was launched in the mid-2022 until the end of February 2023, totalling 3,515 visitors (Hutan Mangrove Medokan, 2022). Based on information from one of the Pokdarwis administrators, the number of visitors to Medokan Ayu Mangrove Garden from the mid-2022 to the end of January, 2023 averaged 1,500 visitors per month.

4. CONCLUSION

The offline training activities to support the operation of the Pokdarwis.id website and the training on calendar content creation and copywriting were successful. The participants were the administrators of Pokdarwis Medokan Ayu. The training activities were organized to provide new knowledge and skills for the Pokdarwis Medokan Ayu administrators. The Pokdarwis Medokan Ayu administrator had become able to manage Pokdarwis.id website, which had been dynamically designed and built by the PkM team. Some of the administrators could also create calendar content with attractive and selling copywriting. Mentoring activities are still being carried out by the PkM UHW Perbanas Surabaya team specifically. This monitoring is closely related to managing the Pokdarwis website. Several Pokdarwis administrators suggested that PkM activities have a continuation. It is recommended that in the next PkM activity there should be digital administrative and financial management training for MSMEs owners around ecotourism areas to improve their welfare and skills to market their products on the internet.

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CONFLICT OF INTERESTS

The community service team declares there is no conflict of interest with its partners with regard to this article, entitled Website as Digital Marketing Media of Ecotourism Medokan Ayu Mangrove Botanical Gardens in Rungkut District, Surabaya, East Java. The community service team also declares that all team members have read and approved the contents of this article. Finally, the community service team has given authority to the editorial team of the Indonesian Journal of Community Engagement to process the publishing of this article through the corresponding author.

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