



Analysis of Halal Ecotourism Digital Campaigns in a Mosque by an Online Environmental Community

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ABSTRACT

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Digital campaigns promoting halal ecotourism in mosques are crucial for advancing sustainability and environmental awareness among Muslims. This study explores the role of the Instagram account @saviorangers digital campaigns in promoting sustainability and environmental conservation at Salman Mosque ITB within the context of halal ecotourism. This study used a qualitative netnographic approach and analyzed 44 posts from 2022-2023 to identify dominant themes and measure user engagement. Tools like NVivo 12 Plus and Phlanx.com were employed for word cloud analysis and engagement rate calculation, respectively. This study identified key themes, which include "garbage alms," "Earth Day," "sacrificial container alms," and "waste sorting." The "garbage alms" theme garnered the highest engagement, indicating strong user interest. The engagement rate of 16.83% reflects significant user interaction, with an average of 126 likes and 6 comments per post. The findings highlight the effectiveness of @saviorangers in raising awareness and encouraging participation in sustainability practices. This study provides valuable insights for other mosques aiming to adopt similar digital campaigns to enhance their role in halal tourism and environmental conservation. The results underscore the potential of social media in fostering community involvement and promoting sustainable practices in religious settings.

1. INTRODUCTION

As a centre of worship and spirituality of Muslims, the mosque uniquely attracts Muslim tourists [1]. Mosques play an important role in the Muslim community's life, and a mosque visit can provide an authentic and immersive religious experience [2]. Muslim travellers often look for opportunities to pray, participate in religious activities, or simply feel the solemn atmosphere inside the mosque. In addition, mosques also offer opportunities to learn about Islamic history, architecture, and culture, which become an essential part of their tourist experience [3].

In halal tourism, mosques must also ensure that the services and facilities meet halal principles [4]. Mosques must develop strategies and policies to meet Muslim tourists' needs and expectations [5]. Mosques can also play a significant role as models for sustainability or halal ecotourism. Halal ecotourism is a concept that combines sustainability principles in tourism with halal requirements in an Islamic context [6]. Halal ecotourism focuses on maintaining and preserving nature governed by the laws of nature established by Allah. These principles lead to larger goals to maintain the beauty and balance of nature and provide equitable social and economic benefits to the communities involved [7, 8].

Sustainability emphasizes the importance of safeguarding and protecting the environment and adopting environmentally friendly practices in daily life. In mosques, the concept of sustainability has solid implications for preserving the environment around the mosque, reducing negative impacts on nature, and increasing awareness of the importance of nature conservation among worshippers and the surrounding community [2].

Mosques can adopt sustainable practices such as efficient water and energy management, using environmentally friendly building materials, and developing parks or green areas that provide open space for the community [9]. By becoming a model of the concept of sustainability, mosques can positively contribute to nature conservation and inspire people to adopt environmentally friendly practices in their daily lives [2].

Salman Mosque ITB is one of the mosques in Indonesia that has adopted the concept of sustainability in its operations and activities. The mosque integrates environmental principles and eco-friendly practices in every aspect of its activities. One example is efficient water and energy management. Salman Mosque ITB uses an innovative water treatment system to reduce excessive water use, as well as implementing an energy-efficient lighting system using LED technology [2].

In addition, this mosque also pays attention to the use of environmentally friendly building materials. Materials with a low carbon footprint that can be recycled are used in construction. Environmentally friendly building materials such as wood derived from sustainable sources and recycled materials are also used [10]. Salman Mosque ITB also has well-managed green areas and parks. This green area not only provides visual beauty but also serves as a source of fresh air and habitat for flora and fauna. The existence of the park also invites pilgrims and the surrounding community to appreciate nature better and maintain its sustainability [11].

In terms of waste management, the mosque implements recycling and waste reduction programs. There are waste sorting facilities that make it easier for pilgrims to sort waste according to its type [3]. In addition, Salman Mosque ITB is also active in educating worshippers about the importance of reducing, managing, and recycling waste. By implementing this sustainability concept, Salman Mosque ITB becomes an inspiring example of preserving the environment. This mosque is a place of worship and a centre that invites worshippers and the surrounding community to contribute to protecting nature and applying sustainability principles in daily life [11].

Halal ecotourism pays great attention to environmental care and maintaining ecosystem balance in tourism activities [7]. Ecotourism in halal tourism emphasizes implementing Islamic principles to maintain the environment [12]. However, research explicitly examining halal ecotourism is still limited, especially in the context of mosques. This study has the novelty of revealing the practice of digital campaigns of mosques as halal ecotourism centres managed with a sustainable, environmentally friendly system. In addition, implementing sustainability practices in the mosque environment is still limited in existing research [2].

As centres of worship and spirituality for Muslims, mosques uniquely attract Muslim tourists, offering authentic and immersive religious experiences. These visits often include opportunities for prayer, participation in religious activities, and learning about Islamic history, architecture, and culture. In the context of halal tourism, mosques must ensure that their services and facilities adhere to halal principles, necessitating the development of strategies and policies to meet the needs and expectations of Muslim tourists. Additionally, mosques can serve as models for sustainability or halal ecotourism, which combines sustainability principles with halal requirements, focusing on preserving nature and providing equitable social and economic benefits to communities. Despite the significant role mosques can play in promoting sustainability, there is a notable gap in research examining halal ecotourism within mosque settings. This study addresses this gap by analyzing digital campaigns conducted by the Instagram account @saviorangers (Salman Environment Rangers) at Salman Mosque ITB, which integrates environmental principles and eco-friendly practices. By identifying dominant topics, analyzing user interactions, and measuring engagement rates, this research highlights the role of digital campaigns in encouraging sustainability practices and environmental conservation in halal mosques and ecotourism. The findings aim to provide insights into sustainability practices that can be adopted by other mosques, thereby contributing to the broader discourse on sustainable and environmentally friendly practices in religious settings [13-15].

Overall, this study aims to analyze digital campaigns carried out by the Instagram account of @saviorangers (Salman

Environment Rangers), a community that acts as environmental guardians at Salman Mosque ITB. This research identifies dominant topics, analyzes user interactions, and measures the *engagement rate* of these digital campaigns. Netnographic methods were used in this study to gain an in-depth understanding of community interactions and digital campaigns @saviorangers. This research highlights the important role of @saviorangers in encouraging sustainability practices and environmental conservation in the context of halal mosques and ecotourism, as well as identifying sustainability practices that can be adopted by other mosques [7, 16, 17].

2. LITERATURE REVIEW

A study on halal tourism in halal tourism destinations in West Sumatra, Indonesia, concluded that environmental and non-environmental factors affect tourist satisfaction [18]. In addition, sustainable tourism development mediates the influence of perceived environmental values on tourist satisfaction. Akter and Hasan [19] concluded that perceived behavioural control (PBC) moderated the relationship between halal tourism attitudes and intentions. Halal tourism intentions are also influenced by attitudes and perceived behavioural control (PBC) but not by subjective norms (SN) on attitude.

A study on the potential of Sharia tourism by Izwar et al. [7] concluded that the potential carrying capacity of Reusam Island, in general, following the needs of halal ecotourism areas in Aceh Jaya, for Sharia tourism, all respondents agreed that Reusam Island became a Syariah ecotourism area. The study of social asset-based ecotourism (halal tourism) as the economic strength of the Indonesian Lombok community by Wildan [6] concluded that the ecotourism-based Social Asset development model shows that the resulting model is appropriate and feasible to implement.

Mudofir et al. [20] found the context of business collaboration and mutual trust and concluded that halal ecotourism destinations would be successful if managers could collaborate with institutions and maintain mutual trust so that domestic and foreign tourist visits would increase. Sustainability of Key Performance Indicators (KPI) of the Halal Ecotourism Information System delivered by Hartawan et al. [21], it is concluded that the Key Performance Indicators of the Halal Ecotourism Information System provide a sustainability index value of 57.50% (entirely sustainable).

Abdallah [2] focused on mosques as sustainable buildings and proposed a new concept for mosques to function as energy-efficient buildings in hot, arid climates. A study on Barriers to managing mosque facilities: Towards a sustainable facility management approach by Sapri et al. [3] pointed out that lack of staff and finances, lack of knowledge and expertise, and lack of external collaboration are the main problems contributing to the performance of mosque facilities.

Another study by Al-Khalifa [16] on sustainable mosques concluded that although, historically, architectural features of mosques address environmental issues, current designs, particularly in the Gulf region, have many shortcomings when faced with current environmental problems. Another study on mosques with a sustainable concept by Ashrafi et al. [22] concluded that the latest energy-saving equipment available in the local market to save energy consumption is light-emitting diodes (LEDs). Based on this parameter, the most efficient energy equipment is selected. Water consumption is also

considered, and different button taps and aerators are used. The implementation of this alternative in the NED University Mosque proved to be more effective and efficient.

A study on digital platforms [23] concluded that platform actors perform aesthetic and precise evaluations of other users' profiles and the content they post. Parhankangas and Colbourne [24] developed an Indigenous emancipatory crowdfunding typology across four orientations: commercial, cultural, community, and campaign. A study by Ingrassia et al. [25] offered a new model of open innovation to advertise and promote food and catering businesses. Nasution [26] found that digital content and social media are still not significant to influence digital campaigns.

Several researchers have carried out the netnographic approach in revealing the role of environmentally friendly communities [27, 28]. Consumers desire to custom products to make them more environmentally friendly, and various motivations that drive consumer recycling are investigated through netnographic analysis of interactions in online recycling communities [27]. The study explored how companies can encourage consumers to consume responsibly to achieve SDGs [28].

Studies on halal tourism and ecotourism are dominated by studies on practices, tourist satisfaction, and potential that have been carried out [6, 7, 18-21]. Studies on mosque practices with sustainable concepts have been conducted [2, 3, 16, 22]. In addition to studies on digital platforms, campaign activities and digital campaigns have been carried out [17, 23-25]. Studies on online communities concerned about the environment with new netnographic methods were conducted [27, 28].

This study is the first to examine digital campaigns in mosque environmental guardian communities with the concept of sustainability by identifying the main themes, patterns in these digital campaigns, and engagement rates. In addition, this research is expected to reveal the effectiveness of digital campaigns in achieving sustainability goals in the mosque environment. It is hoped that the results of this study can provide a more comprehensive understanding of the concrete contribution made by @saviorangers communities in promoting environmental sustainability and conservation practices, as well as inspire other mosques to adopt similar measures in enhancing their role in halal tourism and environmental conservation.

3. METHODS

The qualitative research approach is a research method that aims to understand and explain phenomena in depth through non-numerical data analysis [29]. This approach focuses on interpreting meaning, perspective, and context within the phenomenon under study. In qualitative research, researchers seek to understand how individuals or groups experience and give meaning to their situations [30]. In the context of this study, a qualitative research approach was used to understand the phenomenon of digital campaigns @saviorangers in halal ecotourism and their role in protecting the environment at Salman Mosque ITB. This approach allows researchers to explore the context, meaning, and experience behind the campaign. The advantages of qualitative research approaches include the ability to gain a deep and contextual understanding of complex phenomena and flexibility in exploring multiple perspectives and understanding their meanings. This approach

also allows researchers to capture aspects that could be more measurable or seen in quantitative research [31].

This study adopts netnography in the form of observation or observation of non-participants in collecting data derived from posts, comments, and responses of followers of @Saviorangers accounts to understand the social interaction of a community of environmental guards of Salman Mosque ITB on Instagram [32]. In addition, this qualitative approach in the data analysis process also includes manual data coding with Microsoft Excel toward 44 posts on @saviorangers accounts from 2022-2023. The data collection will be carried out on July 12, 2023. Manual data coding aims to organize, classify, and understand patterns in the collected data [33].

Kozinets describes netnography as the primary source relating to the online communication of data to form an understanding of cultural phenomena. He adapted ethnographic procedures of observation of expected participants to the online context in which social interaction takes place. Like ethnography, netnography is natural, immersive, descriptive, multi-method, and adaptable [34]. Through deep engagement in culture and meticulous observation, netnography allows researchers to focus on new aspects of social life and explore how communities and cultures are formed through computer communication media [35]. This method allows researchers to understand online communities' interactions and cultural production dynamics through digital platforms [36].

Netnography is a research approach that allows researchers to study online communities similarly to anthropologists' understanding of face-to-face communities' culture, norms, and practices [37]. Through observation and active participation in communication in publicly accessible online forums, netnography provides a means to gain deep insight into the interactions and social dynamics occurring within online communities. Thus, netnography allows researchers to explore and analyze cultures generated through interactions on digital platforms [38-40].

Based on Figure 1, some steps can be taken in research using the netnographic method. The first step is the entree, which requires the researcher to know what topics will be researched to determine what accounts will be observed. The second step concerns research ethics about choosing an active community while maintaining personal privacy. The third step is data collection, which can be copied from the topic of discussion posted on the account @saviorangers. The fourth step is data analysis, and the last is the presentation of research data.

Based on data coding done using Microsoft Excel on 44 posts on the @saviorangers account, the author analyzed the data using NVivo 12 Plus. NVivo 12 Plus is software designed to support qualitative analysis, allowing researchers to manage, organize, and analyze data systematically. At the analysis stage, data collected in text form was imported into NVivo 12 Plus [41]. Next, researchers examined the data using analytical capabilities provided by the NVivo 12 Plus, namely word cloud visualization, to determine the dominant topics. Word cloud analysis used NVivo 12 Plus software to identify the keywords that appear most often in @saviorangers posts. Using NVivo 12 Plus, these words can be processed and visualized in the form of a word cloud, which provides a clear visual representation of the most dominant and frequently used words in the content posted by the account [42].

Phlanx.com is a social media analytics platform used in this study to collect and analyze data related to user engagement in

digital campaigns. The platform provides various features and metrics that help researchers understand user responses and interactions with content posted by @saviorangers accounts [43]. In this study, Phlanx.com is essential for obtaining objective and structured data. This platform allows researchers to measure engagement rates through the available analytics features, such as the average number of likes and comments on all posts. Engagement Rate is a metric used to measure the interaction and engagement between Instagram accounts and their followers. It calculates the percentage of followers who actively engage with account content through likes, comments, shares, and other forms of interaction [44]. In the context of this research, Phlanx.com be an effective means to explore insights into user engagement in @saviorangers digital campaigns. By relying on data obtained through this platform,

researchers can make valuable scientific contributions related to the influence and role of digital campaigns in sustainability, environmental conservation, and halal ecotourism efforts at Salman Mosque ITB [45].

All posts on an environmental community account were taken to ensure the reliability of the source and scope of the study data. On February 13, 2022, the @saviorangers account started a series of posts on the Instagram platform. Data from all posts on the account were then taken on June 12, 2023, including the last post shared on June 3, 2023. During that time, various contents were shared by @saviorangers, reflecting the activities and messages they wanted to convey to their followers. By collecting all these posts, this study aims to understand better the issues discussed by @saviorangers and user interactions with the content posted during that period.

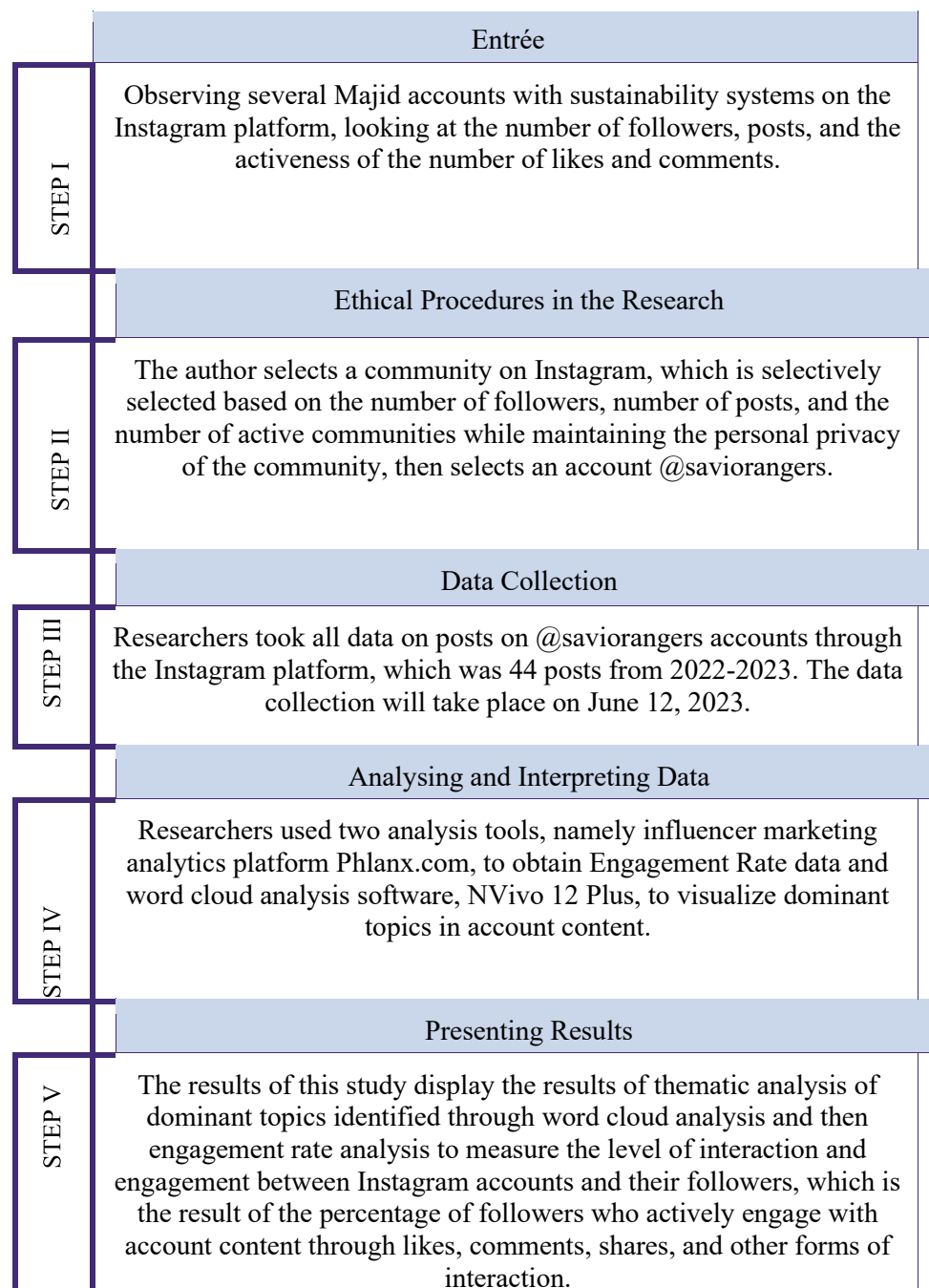


Figure 1. Steps for data analysis with the netnography method adopted model from Vizentin et al. [46]

comments of as many as 143. This finding shows user interest and engagement towards the theme of garbage alms in the campaign.

The "Earth Day" theme has 4 posts. Posts with this theme get 702 likes and 21 comments. This positive response shows users' awareness of Earth Day celebrations and support for campaigns related to environmental issues. The themes "Alms Container Sacrifice" and "Sort Waste" have several posts of 8. The post with the theme "Sedekah Wadah Kurban" received 596 likes and 21 comments. Meanwhile, the post with the theme "Sort Waste" received 576 likes and 13 comments. These two themes also show users' interest in environmental issues and sustainability efforts related to alms, sacrificial containers, and waste management.

Through analyzing this thematic table, themes related to waste alms and environmental issues received a significant positive response from users. This response shows the importance of campaigns and efforts to promote sustainability practices and environmental preservation. Table 1. shows Examples of sample posts in the sample post image on the @saviorangers account.

The most prevalent theme in the @saviorangers community account's digital campaign is garbage alms. Waste alms is a form of community-based waste management [50]. The management of waste alms begins with sorting the waste from each house, collecting it at a temporary waste alms collection location and selling it to waste collectors. The idea of waste alms is highly beneficial to the community as a whole in the effort to reduce domestic waste [51]. The garbage alms program not only has consequences for social, economic, and environmental issues, but it also has ramifications for mental aspects, changes in behaviour, and religious practices [52].

The Earth Day post in Figure 4 highlights the importance of environmental conservation with a focus on sustainable practices. The post in Figure 5 exemplifies the concept of sacrificial container alms by promoting the initiative "sedekah wadah kurban" as part of the campaign. The post in Figure 6 serves as an example of a trash sorting initiative, emphasizing the importance of separating waste as part of the broader effort to manage trash effectively.

Table 1. Thematic posts on @saviorangers accounts

| No. | Post Theme | Number of Posts | Number of Likes | Number of Comments |
|-----|----------------------------|-----------------|-----------------|--------------------|
| 1. | Waste alms | 11 | 2.768 | 143 |
| 2. | Earth day | 4 | 702 | 21 |
| 3. | Alms sacrificial container | 8 | 596 | 21 |
| 4. | Sort garbage | 3 | 576 | 13 |

Source: Processed by Author



Figure 4. Earth Day post example



Figure 5. Example of sacrificial container alms post

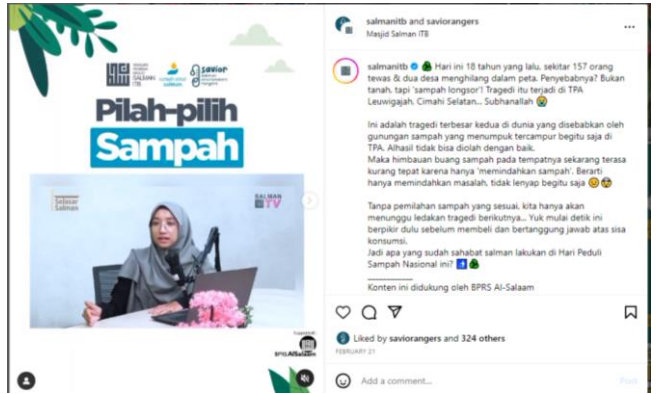


Figure 6. Sample trash sorting post
Source: Sample posts on the @Saviorangers account

4.3 Posts with the highest number of likes and comments

The analysis results through phlanx.com show that @saviorangers has a reasonably high engagement rate of 16.83%. This engagement rate indicates a significant level of engagement and interaction from users towards the content posted by @saviorangers. Furthermore, on average, each post gets 126 likes and 6 comments, reflecting the positive response from users to the digital campaign carried out by @saviorangers in the context of halal ecotourism and environmental preservation at Salman Mosque ITB. The number of likes shows how many followers like the content posted. In contrast, the number of comments describes the level of follower engagement in providing responses, questions, or discussions related to the content. This high engagement rate indicates that the community and followers are @saviorangers active and engaged in supporting and participating in the sustainability efforts they promote.

This high engagement rate indicates that the content posted by @saviorangers can attract attention and trigger user interaction. The positive response in the form of likes and comments shows that the digital campaign by @saviorangers has succeeded in attracting users and encouraging them to participate in discussions and actions related to halal ecotourism and environmental conservation in the mosque environment. Followers @saviorangers actively support and share their views through comments, showing how important the role of the community is in sustainability efforts.

Through high engagement rates and positive responses from users, it can be concluded that the digital campaign by @saviorangers has succeeded in achieving its goals of increasing awareness and participation in halal ecotourism and

environmental preservation at Salman Mosque ITB. High levels of engagement also demonstrate the potential to extend influence and positive impact from @saviorangers to the broader community. The success of this digital campaign provides tangible evidence of the critical role and effectiveness of @saviorangers in promoting sustainability practices and environmental conservation in the context of mosques.

Digital campaigns in the form of posts on social media become a place for containers and images of social media account user activities [53]. Digital campaigns to preserve the environment in halal tourism environments, such as mosques, are expected to increase tourists' engagement. Social media communication is expected to stimulate active participation from tourists in environmental conservation [54].

5. CONCLUSION

Based on the results of this study, it can be concluded that digital campaigns carried out by the @saviorangers account in the context of halal ecotourism play a crucial role in promoting sustainability practices and environmental conservation at Salman Mosque ITB. The account has achieved a significant engagement rate, reflecting a positive response from users, as evidenced by numerous likes and comments. The dominant themes in @saviorangers' digital campaign, such as "garbage alms," "Earth Day," "sacrificial container alms," and "waste sorting," have successfully captured users' attention and engagement. The "garbage alms" theme emerged as the primary focus with the highest number of posts, while the "Earth Day" theme received substantial likes, indicating high user interest. The study also identifies sustainability practices that can be adopted by other mosques, providing inspiration and guidance for similar initiatives elsewhere. The contribution of the @saviorangers community in promoting sustainability practices and environmental conservation within the mosque environment and halal ecotourism is evident and measurable through the in-depth understanding gained via netnographic analysis. The findings of this study significantly contribute to enhancing environmental awareness and community participation in sustainability practices within the mosque setting. It is hoped that the results of this study can serve as a reference for other mosques in developing effective digital campaigns to foster environmental awareness, engage the community, and strengthen sustainability practices in the context of halal ecotourism.

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