



# Contribution of User-Generated Content to Support the Promotion of Pura Mangkunegaran on Digital Platforms

Nur Laili Mardhiyani<sup>a,\*</sup>, Arifa Rachma Febriyani<sup>b</sup>, Mirtha Raihany<sup>c</sup>, Nur Laili Noviani<sup>d</sup>, Ahmad Muntakhib<sup>e</sup>

<sup>a,b,c</sup>Departement of Information and Culture, Vocational College, Universitas Diponegoro, Indonesia

<sup>d,e</sup>National Research and Innovation Agency (BRIN), Indonesia

*Submitted: March 16th, 2025; Revised: April 17th, 2025;  
Accepted: May 15th, 2025; Available Online: May 14th, 2025  
DOI: 10.21456/vol15iss1pp21-337*

## Abstract

This article explains how the role of social media users is part of the development of Pura Mangkunegaran tourism in the form of support through digital platforms. The research method used is descriptive quantitative which includes stages of data collection, data analysis, and data interpretation. Data was taken from respondents who had engagement with Pura Mangkunegaran content which was linked to sentiment analysis and social networks using social media analysis tools based on certain keywords related to Mangkunegaran. The research results show that User Generated Content (UGC) has an important role in supporting Pura Mangkunegaran tourism promotion. Influencers play an important role in spreading Pura Mangkunegaran content, so that content is not only intended for followers, but also for everyone. The more content is created and distributed, the more visible the contribution of UGC will be. Positive sentiment dominates the discussion context on social networks and negative sentiment keywords that appear are not related to tourism.

**Keywords:** User-Generated Content (UGC); Digital Tourism Promotion; Pura Mangkunegaran; Social Media Analysis; Sentiment Analysis

## 1. Introduction

Pura Mangkunegaran is the third most visited tourist destination in Surakarta in 2023 based on data from the Central Statistics Agency of Surakarta City. The number of visits to Pura Mangkunegaran from 2021 to 2023 has always increased. The role of social media plays an important role in disseminating information about Pura Mangkunegaran. Social media has become an essential tool in tourism marketing, enabling businesses to engage with potential travelers and enhance their visibility. Research comparing social media platforms revealed that Instagram had a higher engagement rate than Twitter for tourism marketing campaigns, making it a preferred choice for destination marketing organizations (DMOs) [1]. In August 2024, the Pura Mangkunegaran Instagram account had an engagement rate of 6.27% can be depicted in Table 1. This is the highest compared to the three other tourist destination social media accounts that are in the top 3 most visited tourist attractions in 2023.

Table 1. Instagram engagement rate of Surakarta's tourist attractions in August 2024

No	Tourist Attraction	Followers	Engagement rate
1	Masjid Raya Sheikh Zayed	36.0K	2,02%

No	Tourist Attraction	Followers	Engagement rate
2	Taman Satwataru (Solo Safari)	85.4K	0,20%
3	Mangkunegaran	72.4K	6,27%

Solo Safari has the most followers compared to others, but the highest engagement is on Mangkunegaran. Having a large number of followers does not guarantee the account is efficient in promoting the product. Engagement rate is an algorithm to measure influencers' efficiency on Instagram using metrics such as likes, comments, and followers, aiding brand owners in selecting the most effective influencer for product promotion. This means that the interaction on the Mangkunegaran account is more than the others [2]

Users can create content and upload it to the platform. Research indicates that effective social media marketing significantly boosts visitor interest, with a study showing a 49.5% positive effect on tourism attraction [3]. Social media platforms like Facebook, Instagram, and TikTok allow tourism enterprises to build relationships with customers, fostering engagement through interactive content and real-time feedback [4].

Engagement rate is calculated from the total interactions on social media divided by the number of followers. The greater the number of followers, the

\*) Corresponding author: [nurlaili@live.undip.ac.id](mailto:nurlaili@live.undip.ac.id)

greater the divisor, which can result in a low engagement rate. Engagement rate does not only look at quantity, but also quality. If an account has a lot of followers, it does not necessarily have a bond with the followers. Engagement rate is calculated by dividing the number of interactions (likes, shares, comments) by the total number of followers, providing insight into audience engagement and content effectiveness. We conducted a survey by taking a sample of 104 respondents, of which 104 respondents knew about Pura Mangkunegaran, but 64% of them did not follow @mangkunegaran on Instagram (did not become followers).

Engagement rate refers to the level of interaction and involvement that users have with content on social media platforms [5]. Engagement on social media of Pura Mangkunegaran is not only supported by followers but also by contributions from other users who interact and spread content about Pura Mangkunegaran. User-generated content (UGC) is one of the factors that has led to the emergence of strategies to significantly increase user engagement by increasing trust and authenticity, making it a very effective approach for brands to strengthen relationships with users [6]. However, it's not just about content. This article explains how the role of social media users is part of the development of Pura Mangkunegaran tourism through UGC.

## 2. Literature Review

This article uses the concept of User-Generated Content and Sentiment Analysis. User-Generated Content (UGC) explains in more detail how this concept is important in tourism promotion. The UGC concept will describe the contribution of Pura Mangkunegaran content created by social media users to tourism. In addition, sentiment analysis can describe the tone of the text and content about Pura Mangkunegaran created by users.

### 2.1 User-Generated Content (UGC)

User-Generated Content (UGC) encompasses any form of content—text, images, videos, reviews—created and shared by individuals rather than professional content creators or brands [7]. This content is typically distributed across social media platforms, forums, blogs, and other digital spaces. UGC is characterized by its authenticity and personal touch, which contrasts with the often polished and curated content produced by companies [8]. UGC significantly enhances brand visibility and credibility [9]. This authenticity can foster a stronger connection between brands and their audiences, leading to increased brand loyalty and advocacy [10]. UGC can be a powerful tool for engagement. Research by Kumar et al. (2016) highlights that UGC campaigns often result in higher levels of interaction between brands and their customers [11]. The interactive nature

of UGC encourages users to participate in discussions, share content, and contribute their own experiences, thus creating a more dynamic and engaging brand presence.

One notable trend is the integration of UGC into broader marketing strategies. The use of influencers—individuals with substantial social media followings—has become prevalent as they leverage UGC to amplify brand messages [12]. User-Generated Content represents a transformative force in digital marketing, offering brands opportunities to enhance engagement, build credibility, and connect with consumers on a more personal level. However, it is essential for companies to address the associated challenges, including content quality and intellectual property issues, to effectively leverage UGC. Continued research and strategic management will be crucial in harnessing the full potential of UGC in the evolving digital landscape.

### 2.2 Sentiment Analysis of Tourism Content

Sentiment analysis, also known as opinion mining, is the computational process of identifying and categorizing opinions expressed in text to determine whether the sentiment is positive, negative, or neutral [13]. It involves extracting subjective information from various data sources, including social media, customer reviews, and news article about tourist attractions. The goal is to understand public opinion, track sentiment trends, and inform decision-making processes [14]. In marketing, sentiment analysis helps companies gauge customer reactions to products, services, and campaigns. By analyzing customer feedback and social media mentions, businesses can improve their offerings and address negative sentiments proactively [15].

The quality of sentiment analysis results depends on the quality of input data. Noisy data, such as spam or irrelevant content, can skew results. Additionally, privacy concerns arise when analyzing personal opinions from social media and other sources [16]. Anything related to tourist attractions, for example owners, events, investors, and other things that may not be related to tourism can be included as data.

## 3. Research Methods

The research method used in this study is descriptive qualitative to determine how UGC contributes to the promotion of Pura Mangkunegaran tourism by analyzing data obtained through social media users associated with monitoring results that include keywords and sentiment on digital platforms. To find out the sources of information obtained from users about Pura Mangkunegaran and the keywords they use, we conducted a survey of 104 respondents who had knowledge about Pura Mangkunegaran and had seen the content on social media (but ignored whether they had visited or not). This number of

respondents is the minimum sample taken using the slovin formula (with a margin of error of 10%) from the population of Central Java of 3.7 million in 2024. The survey results aim to determine the sources of information about Mangkunegaran obtained by users and the keywords they use to search for information about Mangkunegaran. If users get information not through official accounts, then UGC has an important role. Users get information through other accounts that may not be affiliated with Mangkunegaran. Then, we conducted monitoring with the keyword "Mangkunegaran" using brand24 social media analytic tools to analyze keywords and sentiment from the word within a period of one month during August 2024. Monitoring was carried out on the Facebook, X (Twitter), TikTok, Video, News, Podcast, Forum, Blog, and web platforms. The purpose of this monitoring is to find out the number of UGC in one month related to the keyword as confirmation of the survey results to respondents. Sentiment analysis is used as qualitative supporting data about the tone of Mangkunegaran content on social media. This analysis looks at how content related to Mangkunegaran on digital platforms is in a positive or negative tone. We can see whether the positive and negative tone of the content is related to tourism or not.

#### 4. Discussion

Pura Mangkunegaran has been in the spotlight in 2022 since the inauguration of Kanjeng Gusti Pangeran Adipati Aryo Mangkunegoro X, Bhre Cakrahutomo Wira Sudjiwo, as the Ruler currently leading a Mangkunegaran. Since then, tourism visits to Mangkunegaran have increased quite significantly. Tourist attractions, building revitalization, and marketing communication strategies through digital platforms have contributed to this increase. Based on 2022-2023 visit data, Mangkunegaran is one of the 5 most visited tourist destinations in Surakarta. The engagement rate on their Instagram account is 6.27% (in August 2024, with 72,4K followers).

Instagram engagement rate is calculated by dividing followers. The assumption is that the higher the number of followers, the lower the ER value [17]. This means that interactions with Mangkunegaran content are higher than the number of followers, so that many content interactions are carried out by those who are not followers. We will discuss how User-generated content plays an important role for Pura Mangkunegaran in conducting digital marketing to increase visits. In addition, we will also see how the tone of content about Pura Mangkunegaran is spread on social media using sentiment analysis to find out whether content related to Pura Mangkunegaran is a positive or negative tone content.

We started by using the brand24 to find out the number of UGC related to the word "mangkunegaran"

(the same as their Instagram profile name) on digital platform in August 2024. The results of the content analysis of Mangkunegaran were 939 mentions generated by social media users, forums, blogs can be depicted in Table 2. This means that there were 939 mentions of the word Mangkunegaran in the posts they uploaded. The content includes text, images, videos, reviews, comments related to Mangkunegaran. Among these contents, the most uploaded and shared is video content.

Table 2. Result of the analysis of Mangkunegaran keyword in August 2024

No	List	Total
1	Total of mention	1690
2	Social Media mentions	917
3	Non-social media mention	773
4	Social media coverage	11.090.284
5	User Generated Content	939
6	Likes on social media	636.727
7	Video Tiktok	741

In early August 2024, we asked 104 respondents about where they got information about Pura Mangkunegaran, as supporting data to be able to show the source of information/content they got. The results were 39.4% of them got information about Pura Mangkunegaran through official accounts, and the second rank with a total of 22.1% chose influencer or celebrity accounts as their source of information to get information about Mangkunegaran (Figure 1.). This shows that influencers are one of the supporting factors of UGC that can grow engagement with users.

The use of an influencer can greatly enhance the outcome of digital marketing [2, 18]. It is undeniable that Mangkunegaran itself uses the collaboration feature on their accounts with influencers or with companies that are partners in certain events.

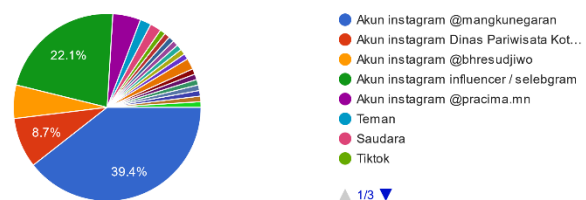


Figure 1. Diagram of information source about Mangkunegaran

Partnerships with influencers and travel bloggers expand reach and credibility, enhancing brand trust among potential travelers [4]. It is not surprising that one of the inseparable parts of Mangkunegaran is the figure of the young leader of Mangkunegaran, Bhre Sudjiwo, who is also an influencer. One of the things that can increase Mangkunegaran's engagement on digital platforms is an influencer figure who is close to tourist destinations. When the official account and the leader of Mangkunegaran collaborate, they will get more interactions from both accounts. The assumption

is that without being a follower of either of them, or even not, if we interact with their content, then the like, comment, share algorithm applies to both. In addition, the survey results said that 13.5% of respondents considered that Bhre (Sudjiwo) is a keyword that is able to represent and be an attraction to search for information about Mangkunegaran. UGC contributions are one of the tourism promotion tools to increase user awareness of the appeal of a tourist spot. Without being a follower, users can also get, create, and upload it through social media or other digital platforms.

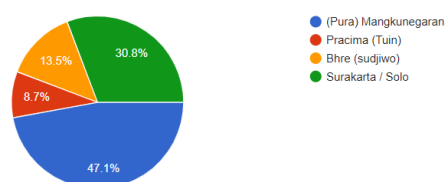


Figure 2. Diagram of keywords to represent Mangkunegaran

The results of keyword used by users to represent Mangkunegaran can be depicted in Figure 2. Respondents said that the keyword that is the attraction of content related to Mangkunegaran is not only about the word (although Mangkunegaran is in the top position with 47.1%), but also things that are close and related to Mangkunegaran. In second place with 30.8%, respondents chose “Surakarta” as the keyword that is an attraction to get information about Mangkunegaran. In the last position, 9 respondents said that the keyword “Pracima Tuin” is an attraction related to Mangkunegaran after “Bhre Sudjiwo”.

The challenge in implementing UGC is that we cannot choose whether the content uploaded and distributed on social media has a positive or negative tone. Each user can create content according to their wishes. The impact is that if the content has a negative tone, it can reduce user engagement and interest in visiting tourist attractions.

We conducted a sentiment analysis of Pura Mangkunegaran during August 2024 to see behind the UGC that increased Mangkunegaran's engagement rate, was there a negative tone that dominated?

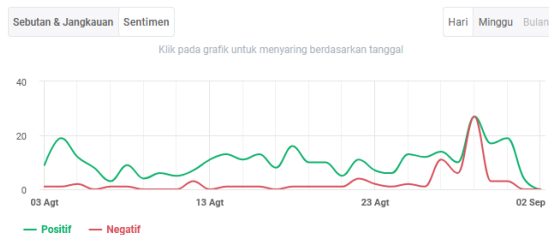


Figure 3. Result of mangkunegaran sentiment analysis in August 2024

Sentiment Analysis is a research in text mining field. It is the computational treatment of opinions, sentiments and subjectivity of text. the process of gathering and analyzing people’s opinions, thoughts, and impressions regarding various topics [19,20]. Figure 3. illustrates how content about Mangkunegaran is dominated by positive sentiment from users throughout August 2024. Positive sentiment is always higher than negative. This content contributes as a tourism promotion tool. However, we cannot yet conclude that positive sentiment is always a tourism promotion tool, there are still other factors and also in-depth text analysis of these contents. But, tourists can now access different sources of information, and they can generate their own content and share their views and experiences. Tourism content shared through social media has become a very influential information source that impacts tourism in terms of both reputation and performance [21].



Figure 4. Sentiment analysis of Mangkunegaran on 29 August 2024

Sentiment analysis in tourism involves exploring tourist-generated content to evaluate opinions, satisfaction, and motivations towards wellness destinations [22]. Figure 4 shows that on August 29, 2024, negative sentiment increased to the same level as positive sentiment. We collected 27 negative content that emerged and concluded that this sentiment was not related to tourism. Negative sentiment about Mangkunegaran was related to the political issue. Public opinion on that news was considered negative because it contained the word *mundur* (because of the Ruler of Mangkunegaran withdrew from the Surakarta mayoral election) in the content. However, the following day, the sentiment decreased and was at the previous level.

Negative reviews affect consumer decisions, revealing that negative sentiment can have threshold effects on positive sentiment, particularly as the volume of reviews increases [23]. In this case, negative content has no correlation with tourist attractions, so it may not have an effect on tourist visits.

## 5. Conclusion

User-Generated Content has an important role in supporting Pura Mangkunegaran tourism promotion.



The highest number of followers among other tourist destinations in Surakarta, UGC is able to encourage Pura Mangkunegaran to get a higher engagement rate. Some people do not follow the @mangkunegaran account, but they know Pura Mangkunegaran through the information/content they see on digital platforms. Influencers play an important role in spreading Pura Mangkunegaran content, so that content is not only intended for followers, but also for everyone. The more content is created and distributed, the more visible the contribution of UGC will be. Positive sentiment dominates content on social networks and negative sentiment keywords that appear are not related to tourism. Further research is needed to be able to analyze in depth the content of mangkunegaran using text analysis. This can help whether the categorization of sentiment in the content is correct and has a relationship with tourist attractions.

## References

- Alaei, A., Becken, S., & Stantic, B. (2019). Sentiment analysis in tourism: Capitalizing on big data. *Journal of Travel Research*, 58(2), 175–191. <https://doi.org/10.1177/0047287517747753>
- Aliyah, K., Kisworo, B., Miraj, S., & Gupta, S. (2024). Pengaruh media sosial terhadap pemberdayaan masyarakat. *Jurnal Pendidikan dan Pemberdayaan Masyarakat*, 11(1), 26–38. <https://doi.org/10.21831/jppm.v11i1.72327>
- Arman, A. A., & Sidik, A. P. (2019, October 19–20). Measurement of engagement rate in Instagram (Case study: Instagram Indonesian government ministry and institutions) [Conference presentation]. *2019 International Conference on ICT for Smart Society (ICISS)*, Bandung, Indonesia. <http://doi.org/10.1109/ICISS48059.2019.8969826>
- Bloor, D., & Moffatt, S. (2017). Consumer behavior in digital marketing. *Journal of Marketing Research*, 54(3), 455–468.
- De Vries, L., Gensler, S., & Leeflang, P. S. H. (2012). S Popularity of Brand Posts on Brand Fan Pages: An Investigation of the Effects of Social Media Marketing. *Journal of Interactive Marketing*, 26(2), 83–91. <https://doi.org/10.1016/j.intmar.2012.01.003>
- Flinta, N. (2022). The evolution of interdisciplinary research methodologies. *Journal of Interdisciplinary Studies*, 7(2), 45–62.
- Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review*, 37(1), 90–92. <https://doi.org/10.1016/j.pubrev.2010.11.001>
- George, O. A., & Ramos, C. M. Q. (2024). Wellness tourism and digital transformation: A comprehensive analysis of industry trends. *International Journal of Spa & Wellness*, 7(2), 139–161. <https://doi.org/10.1080/24721735.2024.2352979>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Kumar, V., Pozza, I. D., & Ganesh, J. (2016). Multichannel marketing and consumer engagement: A review of recent research. *Journal of Marketing*, 80(6), 40–58.
- Liu, B. (2012). *Sentiment analysis and opinion mining*. Morgan & Claypool Publishers. <https://doi.org/10.2200/S00416ED1V01Y201204.HLT016>
- Manning, C. D., Raghavan, P., & Schütze, H. (2008). *Introduction to information retrieval*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511809071>
- Medhat, W., Hassan, A., & Korashy, H. (2014). Sentiment analysis algorithms and applications: A survey. *Ain Shams Engineering Journal*, 5(4), 1093–1113. <https://doi.org/10.1016/j.asej.2014.04.011>
- Monacho, B. C., & Slamet, Y. (2023). Strategi komunikasi pemasaran digital dalam era transformasi teknologi. *Jurnal Komunikasi*, 39(2), 373–388.
- Niwareeba, R., Cox, M. A., & Cheng, L. (2023). Adaptive-mode PAPR reduction algorithm for optical OFDM systems leveraging lexicographical permutations. *Electronics*, 12(13), Article 2797. <https://doi.org/10.3390/electronics12132797>
- Pak, A., & Paroubek, P. (2010, May 17–23). Twitter as a corpus for sentiment analysis and opinion mining [Conference presentation]. *Proceedings of the 7th International Conference on Language Resources and Evaluation (LREC 2010)*, Valletta, Malta. [http://www.lrec-conf.org/proceedings/lrec2010/pdf/385\\_Paper.pdf](http://www.lrec-conf.org/proceedings/lrec2010/pdf/385_Paper.pdf)
- Pang, B., & Lee, L. (2008). Opinion mining and sentiment analysis. *Foundations and Trends in Information Retrieval*, 2(1–2), 1–135. <https://doi.org/10.1561/1500000011>
- Smith, A., & Zook, Z. (2011). Social media marketing strategies: An integrated approach. *Journal of Business Research*, 64(3), 271–278.
- Stolte, D. (2023). *Assessing the engagement of social media marketing: The case study of a tourism Toronto video-based marketing campaign* [Master's thesis, Toronto Metropolitan University]. ProQuest Dissertations and Theses Global. <https://doi.org/10.32920/ryerson.14647614.v1>
- Toly, A. A., Angel, M., & Roedyanto, J. F. (2023). Digital conference proceedings and their impact on academic communication. *Journal of International Conference Proceedings*, 6(1), 35–52. <https://doi.org/10.32535/jicp.v6i4.2578>

- Varadainy, Z., Helita, W., Hermansyah, M., & Rahmawati, I. D. (2024). Business trends in digital learning platforms: A comprehensive market analysis. *International Journal of Business, Learning, and Professional Studies*, 1(1), 1–6.
- Wang, B., Jin, X., & Ma, N. (2024). Artificial intelligence in marketing: Current applications and future prospects. *Kybernetes*. Advance online publication.
- Wankhade, M., Rao, A. C. S., & Kulkarni, C. (2022). A survey on sentiment analysis methods, applications, and challenges. *Artificial Intelligence Review*, 55(8), 5731–5780. <https://doi.org/10.1007/s10462-022-10144-1>
- Yew, R. L. H., Suhaidi, S. B., Seewoosurn, P., & Sevamalai, V. K. (2018, October 26–28). Social network influencers' engagement rate algorithm using Instagram data [Conference presentation]. 2018 *Fourth International Conference on Advances in Computing, Communication & Automation (ICACCA)*, Subang Jaya, Malaysia.
- Yu, X., Hua, J., Bao, T., & Zhang, H. (2023). A novel PAPR reduction scheme for low-cost terminals in 6G wireless communications. *Energies*, 16(8), Article 3307. <https://doi.org/10.3390/en16083307>