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How User-Generated Content Affects Tourist Loyalty Behaviour at Cultural Heritage Sites in Indonesia

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ABSTRACT

This study examines the role of UGC in enhancing the destination image and tourist loyalty behavior at UNESCO-listed cultural heritage sites in Indonesia. It explores 1) the influence of UGC on destination image, 2) the impact of destination image on revisit intention, satisfaction, and WOM, and 3) the mediating role of satisfaction in tourist loyalty behavior. Using purposive sampling, 200 Generation Z respondents who visited at least one UNESCO heritage site were surveyed via an online questionnaire. Data was analyzed using SEM with SmartPLS 4. The findings reveal that emotional UGC positively and significantly impacts destination image, while factual UGC has a negative and non-significant effect. Destination image positively influences revisit intention and satisfaction but has no significant effect on WOM. Satisfaction successfully mediates the relationship between destination image and revisit intention, as well as WOM. This research contributes to understanding the impact of UGC on cultural tourism and offers insights for promoting Indonesia's heritage sites through social media, emphasizing emotional UGC to strengthen destination image and tourist loyalty.

1. INTRODUCTION

Social media became a primary solution for fulfilling social needs and staying connected during the COVID-19 pandemic, as individuals turned to digital platforms to maintain social interactions and seek information [1]. This phenomenon accelerated the role of social media as a powerful marketing tool in the tourism industry, enabling destinations to reach global audiences through easily shareable content. Social media facilitates the dissemination of UGC, which offers travelers first-hand, authentic insights that influence perceptions and decision-making processes.

Generation Z, born between 1997 and 2012, is particularly influential in this digital transformation. Empirical studies show that Generation Z prioritizes authenticity, emotional engagement, and visually appealing content in their travel choices, relying more on peer-shared experiences over traditional marketing [2]. This generation, representing 40% of global consumers, is highly active on social media platforms, making them a key audience for UGC-based tourism promotion [3]. Their digital savviness and preference for emotional narratives have reshaped how cultural heritage tourism engages with younger travelers, emphasizing the need to understand their behavior in response to UGC. Studies have shown that Generation Z travelers actively seek visually engaging and authentic content that aligns with their values and aspirations, making UGC a crucial tool for influencing their travel decisions and fostering destination loyalty [4].

Within the tourism landscape, UGC has proven especially valuable for cultural heritage tourism. UGC—categorized into factual and emotional content—offers authentic narratives and practical information that shape destination image and tourist behavior. Emotional UGC, such as engaging visuals and stories, fosters emotional connections and enhances perceptions of a destination, while factual UGC provides useful details like hours of operation, pricing, and promotions [5].

These content types play a key role in tourist loyalty behaviour that consists of revisit intention, WOM, and satisfaction. Recent studies highlight that revisit intention is tourists' likelihood to return to a destination based on previous positive experiences and satisfaction, often influenced by memorable and engaging elements at the site [6]. WOM represents tourists' willingness to share their positive experiences, which significantly affects the destination's image and can drive new visits by influencing others' travel choices [7]. Satisfaction is the positive outcome when tourists' experiences align with or exceed their expectations, reinforcing both revisit intentions and WOM as loyalty indicators [7]. Together, these factors form a cohesive loyalty framework, showing that higher satisfaction not only strengthens tourists' personal desire to return but also encourages them to endorse the destination to others.

The importance of understanding these behaviors is particularly critical for Indonesia, where tourism is one of the most profitable sectors due to the country's rich cultural and

geographical diversity. Indonesia is home to six UNESCO-listed cultural heritage sites, including Borobudur Temple, Prambanan Temple, and the Bali Subak System, which attract both domestic and international visitors [8]. Therefore, expanding it takes more than the development of the physical infrastucture. These sites rely on their ability to create an intriguing destination with a positive destination image with digitalized and up-to-date information [9].

In a previous study condcuted on a wildlife park in Indonesia, Faunaland Ancol, researchers found that social media has a significant and positive effect on promoting tourism [9]. Another study stated that the continuous uprising of social media significantly transforms tourism pre-travel stage, or the planning, as destination image perceptions was build in the consumers mind by their first impression online. They found that UGC positively and significantly impacts visiting intentions in Vietnam by enhancing destination image, visit intention, and tourist attitude [10]. Meanwhile, a study by Xu et al. [11] demonstrated that both factual and emotional UGC influence tourist loyalty through destination image and satisfaction, particularly at Gulangyu Island's cultural heritage sites in China. Destinations that drives on UGC plays a major role in fostering tourist loyalty that includes, but not limited to, revisit intention, satisfaction, and word of mouth (WOM).

While previous studies in other countries, have demonstrated the impact of UGC on destination image and loyalty behaviors, there is a notable geographical gap in understanding this relationship in Indonesia's cultural heritage context. Indonesia UNESCO-listed cultural heritage sites hold immense tourism potential, but their promotion through UGC remains underexplored in academic research. In addition to the geographical gap, previous studies have not fully explored the mediating role of destination image in explaining both types of UGC towards satisfaction, as well as the madiating role of satisfaction in connecting destination image with the three loyalty behaviors (revisit intention and WOM).

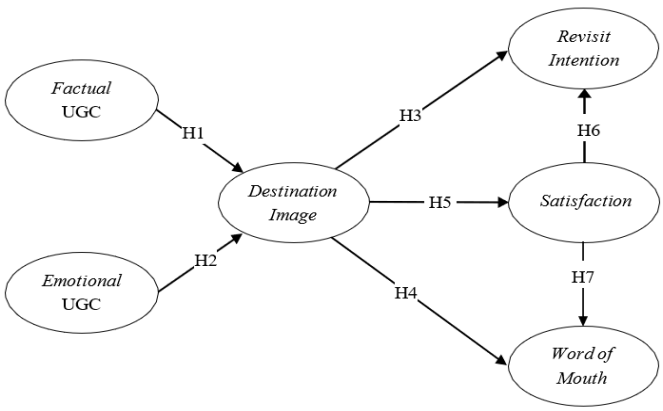

Figure 1. Conceptual model

Moreover, there is a population gap from the lack of previous research targeting Generation Z tourist, a demographic cohort that plays a pivotal role in the tourism industry and places a strong emphasis on authentic and emotionally engaging digital content. By incorporating both emotional and factual UGC, this study addresses these gaps, investigating how destination image and satisfaction mediates the relationship between UGC and tourist loyalty among Generation Z visitors to Indonesia's UNESCO cultural heritage sites. This focused approach contributes to a deeper understanding of UGC's role in cultural heritage tourism while providing insights relevant to Indonesia's tourism stakeholders.

Therefore the three main objectives for this study are (1) to determine whether factual and emotional UGC have a positive impact on destination image, (2) to explore whether destination image mediates the effect of factual and emotional UGC on revisit intention, satisfaction, and WOM, (3) to investigate whether satisfaction mediates the effect of destination image on revisit intention and WOM among Generation Z who have visited one of Indonesia's cultural heritage sites.

2. THEORETICAL BASIS

2.1 Grand theory overview

This study is grounded in the Theory of Planned Behavior (TPB), which explains how behavior is influenced by three key components: attitude toward the behavior, subjective norms, and perceived behavioral control [12]. Attitude toward the behavior reflects individuals' positive or negative evaluations of specific actions, such as revisit intentions, UGC, and WOM. Subjective norms describe the social pressure perceived to engage in a behavior, such as the influence of social perceptions and recommendations shaping the destination image [13]. Perceived behavioral control involves an individual's belief in their ability to perform an action; for instance, factual UGC highlighting accessibility can increase perceived ease of visiting a destination.

The study also incorporates the Expectation-Confirmation Theory (ECT) to explore satisfaction and its impact on revisit intention. ECT describes how initial expectations influence post-experience evaluations, leading to satisfaction if experiences meet or exceed expectations [14]. Satisfaction plays a crucial role in determining whether individuals continue engaging in specific behaviors, such as revisiting or recommending a destination. This theoretical foundation allows the study to integrate behavioral intentions (TPB) and ECT to comprehensively examine factors influencing tourist behaviors.

2.2 Operationalization of variables and conceptual model

UGC has emerged as a transformative force in tourism, shaping destination image, influencing travel decisions, and fostering tourist loyalty. Prior studies highlight the dual role of UGC in providing both emotional and factual information. Emotional UGC enhances the affective appeal of destinations by fostering personal connections and emotional engagement, while factual UGC offers practical details that support travel planning [5].

However, the broader implications of UGC on tourism extend beyond individual traveler behaviors. For instance, UGC has been shown to significantly impact destination branding, as the organic and authentic nature of peer-shared content often surpasses traditional marketing in credibility and reach [15]. Additionally, UGC serves as a critical feedback mechanism for destination managers, enabling them to identify areas of improvement based on tourists' shared experiences [11].

This study builds upon these insights by focusing specifically on Generation Z tourists visiting UNESCO cultural heritage sites in Indonesia. By examining the mediating roles of destination image and satisfaction, it seeks

to fill gaps in existing literature, particularly concerning the interplay of emotional and factual UGC in fostering tourist loyalty. This approach not only enhances the understanding of UGC's role in tourism but also offers practical strategies for leveraging it to promote cultural heritage sites.

This study operationalized variables through 32 indicators adapted from Xu et al. [11]. The indicators were developed to measure key constructs, including factual UGC, emotional UGC, destination image, satisfaction, revisit intention, and WOM. Each indicator reflects the theoretical frameworks of TPB and ECT, ensuring alignment with validated scales from prior studies. Statistical analyses of the indicators were conducted to validate their reliability and ensure their alignment with the theoretical constructs.

The concept model adopted in this study, as presented in Figure 1, is adapted from Xu et al. [11], who examined the role of factual and emotional UGC in influencing tourist loyalty through destination image and satisfaction at cultural heritage sites in China. The findings demonstrated the importance of both types of UGC in shaping tourist behavior and underscored satisfaction as a critical mediator between destination image and loyalty outcomes. Building on this prior research, the current study contextualizes the model within Indonesia's cultural heritage tourism landscape, emphasizing the unique demographic focus on Generation Z and addressing the geographical research gap as shown in Figure 1.

Figure 1 outlines the hypothesized relationships (H1-H7) that guide this study. These hypotheses explore the direct relationships between UGC, destination image, satisfaction, revisit intention, and WOM among Generation Z visitors to Indonesia's cultural heritage sites. The hypotheses are formulated as follows:

H1: *Factual UGC positively influences destination image among Generation Z visitors to Indonesia's cultural heritage sites.*
H2: *Emotional UGC positively influences destination image among Generation Z visitors to Indonesia's cultural heritage sites.*
H3: *Destination image positively influences revisit intention among Generation Z visitors to Indonesia's cultural heritage sites.*
H4: *Destination image positively influences WOM among Generation Z visitors to Indonesia's cultural heritage sites.*
H5: *Destination image positively influences satisfaction among Generation Z visitors to Indonesia's cultural heritage sites.*
H6: *Satisfaction positively influences revisit intention among Generation Z visitors to Indonesia's cultural heritage sites.*
H7: *Satisfaction positively influences WOM among Generation Z visitors to Indonesia's cultural heritage sites.*

In addition to these direct relationships, the study also investigates the mediating effects that are not explicitly shown in Figure 1. These mediation hypotheses expand the research model by examining the indirect relationships between UGC, destination image, satisfaction, and loyalty behaviors. The indicators used in this study are detailed in Table A1. The mediation hypotheses are as follows:

H8: *Destination image mediates the relationship between factual UGC and satisfaction among Generation Z visitors to Indonesia's cultural heritage sites.*
H9: *Destination image mediates the relationship between emotional UGC and satisfaction among Generation Z visitors to Indonesia's cultural heritage sites.*
H10: *Satisfaction mediates the relationship between destination image and revisit intention among Generation Z visitors to Indonesia's cultural heritage sites.*
H11: *Satisfaction mediates the relationship between destination image and WOM among Generation Z visitors to Indonesia's cultural heritage sites.*

3. RESEARCH METHOD

This research uses a quantitative and descriptive design with a cross-sectional design for data collection, meaning that data is collected at a single point in time without observing subjects over a prolonged period [16].

3.1 Research population and sample

The population of this study consists of Generation Z tourist. This demographic group was chosen due to being one of the fastest-growing travel segments, with significant purchasing power and an increasing interest in cultural and experiential tourism [17]. This demographic's distinct reliance on social media platforms for travel-related content underscores the importance of understanding their behaviors, making them a relevant and critical population for examining UGC's impact on cultural heritage tourism. A non-probability sampling method was applied, as not every member of the population has an equal chance of being selected as a sample [18]. The specific sampling technique is purposive sampling, where participants are chosen based on certain criteria relevant to the research objectives [16]. The sample in this study consists of Generation Z individuals aged 17-27 who have visited at least one cultural heritage site in Indonesia recognized by UNESCO.

Individuals aged 12–16 were excluded from the sample due to their limited cognitive and experiential capacity to fully comprehend and evaluate complex constructs central to this study, such as UGC, destination image, and tourist loyalty behavior. Prior research indicates that adolescents in this age range may lack the maturity or critical thinking skills needed to assess abstract concepts like perceived destination image and loyalty intentions [19].

Additionally, this age group is less likely to independently plan or engage in cultural heritage tourism compared to older individuals, making them less relevant to the study's objectives. Out of the 256 respondents who participated in the study, 200 met the study criteria and completed the questionnaire, which was distributed online via Google Forms. The sample size was determined based on the guidelines of Hair et al. [20], which recommend that the minimum sample size for Structural Equation Modeling (SEM) should be five times the number of indicators, while the maximum should be ten times the number of indicators. With 32 indicators used in this study, the minimum required sample size was 160 (32 × 5), and the maximum was 320 (32 × 10). Therefore, the sample size of 200 falls within this recommended range, ensuring adequate representation and statistical feasibility.

Although the sample size meets the thresholds recommended by Hair et al. [20], the adequacy of 200 respondents for SEM—given the complexity of the model—has been questioned in prior research. For instance, Wolf et al. [21] suggest that sample sizes in SEM should also consider

model complexity, including the number of latent variables and pathways [11]. They emphasize that smaller sample sizes can reduce statistical power and increase the likelihood of estimation errors. Similarly, Muthén and Muthén [22] recommend sample sizes of 200 or more for simpler models but caution that more complex models often require larger samples to achieve robust results.

In this study, a sample size of 200 was chosen to balance practical limitations and statistical requirements. To enhance the robustness of the findings, bootstrapping and other statistical techniques were employed to account for potential limitations associated with sample size.

3.2 Research instruments and analysis

This research utilized 32 indicators to explain each variable through variable operationalization—analyzing values selected by the researcher to draw conclusions about the presence of these variables [18]. Responses were collected using a six-point ordinal scale, with categories as follows: (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) moderately agree, (5) agree, and (6) strongly agree. The use of six categories aimed to avoid neutral responses and improve reliability, as suggested by Simms et al. [23], who argued that increasing response options to six provides clearer distinctions in participant attitudes. Prior studies, such as Joshi et al. [24], have utilized six-point scales effectively, demonstrating their ability to enhance response clarity and reduce ambiguity in ordinal data collection. These scales have been shown to minimize indecision by encouraging respondents to take a definitive stance on the statements provided.

However, the choice of a six-point ordinal scale, while beneficial in some aspects, also introduces potential limitations that are not fully addressed in the study. One concern is the risk of central tendency bias, where participants may cluster their responses around the middle categories (e.g., somewhat disagree/moderately agree). Furthermore, the absence of a neutral option may compel respondents to make choices that do not fully align with their true perspectives, potentially affecting the validity of the results [25]. Although the scale design is intended to improve reliability, future research should consider these limitations and explore the use of alternative scales, such as seven-point scales, which provide a neutral midpoint while maintaining a balance between detail and clarity. Statistical analysis ensured the ordinal nature of the collected data was appropriately addressed to test the hypotheses proposed in this study.

This study utilized SmartPLS 4 for data processing and to test research instruments, employing Partial Least Squares (PLS) as an alternative to covariance-based SEM for models with latent variables. The analysis includes outer model testing for validity and reliability, and inner model analysis. Convergent and discriminant validity were assessed to ensure the model's robustness.

4. INNER AND OUTER MODEL ANALYSIS

The study involved 200 participants who had visited at least one of Indonesia's cultural heritage sites. Among them, 57% were women and 43% were men. The majority of respondents were aged between 17 and 21 years old, making up 70% of the sample, while 30% were between 22 and 27 years old. Most participants lived in DKI Jakarta (69%), followed by Banten (13%), with the remaining respondents coming from other provinces across Indonesia. In terms of monthly spending, 74% of the participants reported spending less than Rp 5,000,000.

4.1 Outer model analysis

This study employed outer model analysis to examine the validity and reliability of the indicators used to determine each variable. The outer model analysis is critical in validating the constructs used in this study, ensuring that the measurement model accurately represents the underlying theoretical framework. The key constructs—factual UGC, emotional UGC, destination image, satisfaction, revisit intention, and WOM—were evaluated for reliability and validity using outer loadings, Average Variance Extracted (AVE), and Composite Reliability.

Four out of 32 indicators with the lowest values were removed as they caused other variables to become invalid. According to Ghozali and Latan [26], these variables were deemed less relevant or redundant, therefore should be removed from the model. After removing indicator DI3 (0.530), DI6 (0.602), EU7 (0.556) WM7 (0.657), further analysis was conducted to ensure improved validity and reliability, as shown in Table 1.

Table 1. Validity and reliability analysis results

Variable	Indicator	Outer Loadings	AVE	Cronbach's Alpha	Composite Reliability
Destination Image	DI1	0.773	0.503	0.749	0.834
	DI2	0.611			
	DI4	0.655			
	DI5	0.710			
	DI7	0.780			
Emotional User-Generated Content	EU1	0.764	0.516	0.813	0.864
	EU2	0.696			
	EU3	0.688			
	EU4	0.753			
	EU5	0.628			
	EU6	0.772			
Factual User-Generated Content	FU1	0.824	0.593	0.653	0.813
	FU2	0.701			
	FU3	0.780			
Revisit Intention	RI1	0.739	0.554	0.735	0.832
	RI2	0.788			
	RI3	0.761			
	RI4	0.686			
Satisfaction	ST1	0.772	0.581	0.759	0.847
	ST2	0.814			
	ST3	0.754			
	ST4	0.707			
WOM	WM1	0.728	0.500	0.802	0.857
	WM2	0.751			
	WM3	0.693			
	WM4	0.707			
	WM5	0.705			

Soure: Primary Data Proccessing on SmartPLS, 2024

Table 1 shows convergent validity assessed using the AVE to ensure each indicator had a high correlation with the latent variables. The AVE values for all variables exceeded 0.5, meeting the criterion for good convergent validity [20]. Moreover, reliability testing measured the internal consistency of each variable using Cronbach's Alpha and Composite

Reliability. All variables had Cronbach's Alpha values exceeding 0.7, indicating good consistency. Additionally, the Composite Reliability values for all variables were above 0.7, showing that the research instrument is reliable and can be used to measure the relationships between the variables.

4.2 Inner model analysis

The inner model analysis revealed the influence of independent variables on dependent variables by testing the coefficient determination (R-square or R^2), predictive relevance (Q-square or Q^2), and effect size (f-square or f^2).

Table 2. R-square and Q-square results

	R-Square	Q-Square
Destination Image	0.247	0.212
Revisit Intention	0.511	0.198
Satisfaction	0.357	0.232
WOM	0.304	0.202

Source: Primary Data Proccessing on SmartPLS, 2024

Table 3. Effect size results

	F-Square	Effect
Emotional UGC → Destination Image	0.264	Moderate Effect
Factual UGC → Destination Image	0.000	No Effect
Destination Image → Revisit Intention	0.387	Strong Effect
Destination Image → Satisfaction	0.556	Strong Effect

Source: Primary Data Proccessing on SmartPLS, 2024

Table 2 shows that the R^2 test showed that destination image (24.7%), satisfaction (35.7%), and WOM (30.4%) could be explained by the independent variables at a moderate level, while revisit intention (51.1%) was explained at a high level, with the remaining variance explained by other factors not covered in this study. As a measure of predictive relevance, all variables have a value greater than 0, indicating that all variables exhibit good predictive models. The destination image variable has a moderate predictive relevance (Q^2 =0.212), as well as the revisit intention variable has a (Q^2 =0.198). Additionally, both the satisfaction (Q^2 =0.232) and WOM (Q^2 =0.202) indicate moderate predictive relevance as well [20].

Table 3 shows that emotional UGC variable has a moderate effect on destination image (f^2 =0.264), while factual UGC does not significantly affect destination image (f^2=0.000). Destination image variable has a strong effect on revisit intention (f^2 = 0.387) and satisfaction (f^2 = 0.556), as well as a moderate effect on WOM (f^2 = 0.030). Additionally, satisfaction shows moderate effects on both revisit intention (f^2 = 0.077) and WOM (f^2 = 0.166). These results reflect the varying levels of influence that each variable has within the model [27].

5. RESULT AND DISCUSSIONS

Hypothesis testing (path coefficient) was conducted to assess the t-statistics and p-values, which were used to determine whether the hypotheses should be accepted or rejected. The threshold for the t-statistics was set at greater than 1.96, and the threshold for the p-values was set at less than 0.05. The results of the hypothesis testing for each hypothesis are shown in Table 4.

Table 4. Path coefficient results

	Original Sample		T-Statistics	P-Values
Factual UGC →Destination Image	H1	-0.015	0.181	0.857
Emotional UGC → Destination Image	H2	0.504	5.088	0.000
Destination Image → Revisit Intention	H3	0.543	6.175	0.000
Destination Image → WOM	H4	0.181	1.402	0.161
Destination Image → Satisfaction	H5	0.598	11.014	0.000
Satisfaction → Revisit Intention	H6	0.242	2.778	0.005
Satisfaction → WOM	H7	0.424	4.671	0.000

Source: Primary Data Proccessing on SmartPLS, 2024

5.1 Hypothesis 1

Hypothesis 1 (H1) suggested that factual UGC has a positive impact on destination image. However, the result showed an original sample value of -0.015, a t- statistics value of 0.181, and a p-value of 0.857. Since the p-value is greater than 0.05, this hypothesis is rejected, meaning factual UGC have a negative and no significant effect on destination image.

This finding aligns with research by Velayuthan and Hashim [28], which suggests that factual information does not always substantially influence the perception of a destination in some contexts. Specifically, for this study focusing on Generation Z, tourists appear to prioritize emotional narratives and firsthand experiences over factual content. Popsa [29] supports this by noting that Generation Z tends to rely more on emotionally engaging content for decision-making.

Additionally, the discrepancy in findings compared to earlier studies may be attributed to the distinct respondent profiles. Factors such as geography, with Indonesian tourists potentially valuing different content types than international tourists, and the inclusion of younger respondents aged 17-21, which were not often considered in prior research, could play significant roles. This highlights that factual UGC may lack sufficient emotional resonance to strongly influence destination image among younger audiences, underscoring the importance of tailoring content strategies to demographic preferences.

5.2 Hypothesis 2

Hypothesis 2 (H2) proposed that emotional UGC has a positive effect on destination image. The results showed an original sample value of 0.504, a t-statistics value of 5.088, and a p-value of 0.000. Since the p-value is less than 0.05, this hypothesis is accepted, indicating that emotional UGC significantly and positively impacts destination image.

The study by Cheung et al. [5] supports this conclusion by stating that the emotional components of content affectively increase a destination's appeal. Additionally, emotional interaction can boost tourist interest and enhance the destination's image, according to the principle of consumer loyalty. As a result, organizations that oversee Indonesian cultural heritage sites can use genuine emotional material to improve the emotional connection between visitors and the location.

5.3 Hypothesis 3

For Hypothesis 3 (H3), which hypothesized that destination image positively influences revisit intention, the original sample value was 0.543, the t-statistics value was 6.175, and the p-value was 0.000. With the p-value below 0.05, this hypothesis is accepted, showing that a positive destination image significantly influences the intention to revisit a location.

According to these results, it is consistent with the research of Wang et al. [30], which shows that a favorable impression of the destination can boost the inclination to return. A favorable perception of the location can also increase a person's intention to return, according to the TPB. Therefore, by emphasizing each site's distinctive qualities, managers of Indonesia's cultural heritage sites can use the destination image to draw visitors back.

5.4 Hypothesis 4

Hypothesis 4 (H4) suggested that destination image has a positive effect on WOM. The result showed an original sample value of 0.181, a t-statistics value of 1.402, and a p-value of 0.161. Since the p-value is greater than 0.05, this hypothesis is accepted, meaning destination image has a positive influence WOM, although not significantly.

This result is consistent with the study of Nguyen [31], which discovered that by fostering WOM among travelers, the destination image is essential to boosting tourism. Nonetheless, a non-significant correlation between the destination picture and WOM was discovered within the framework of this investigation. As a result, the study's sample might not accurately reflect the population.

According to research by Lam et al. [32], WOM is not always influenced by the destination picture, especially its cognitive aspects. According to this study, a favorable impression of a place is less successful in creating WOM if visitors do not feel deeply connected to the place or are not very satisfied. Because Generation Z places a higher value on emotional experiences and relationships when sharing on social media, the destination image alone might not be enough to persuade travelers to share their experiences.

The non-significant relationship between destination image and WOM suggests that a positive image alone may not suffice to inspire active advocacy. WOM is typically driven by a combination of strong satisfaction and emotional engagement. For instance, visitors who feel deeply connected to a site through personal experiences are more likely to share their stories. This highlights the need for tourism stakeholders to pair a strong destination image with initiatives that enhance visitor satisfaction and emotional bonds.

5.5 Hypothesis 5

Hypothesis 5 (H5) proposed that destination image positively influences satisfaction. The result showed an original sample value of 0.598, a t-statistics value of 1.014, and a p-value of 0.000. Since the p-value is less than 0.05, this hypothesis is accepted, indicating that destination image has a significant positive impact on satisfaction.

The study by Yunita and Tjokrosaputro [33], which claims that a favorable impression of a place results in more pleasure, is supported by this data. The Expectancy Confirmation Theory (ECT), which contends that positive views of the place will increase visitor pleasure, also explains the theory [30]. Thus, in order to increase visitor happiness, Indonesian cultural heritage site administrators can introduce experiences that enhance the destination's reputation.

5.6 Hypothesis 6

Hypothesis 6 (H6) suggested that satisfaction positively influences revisit intention. The original sample value was 0.242, the t-statistics value was 2.778, and the p-value was 0.005. Since the p-value is less than 0.05, this hypothesis is accepted, confirming that satisfaction significantly affects the intention to revisit.

The results of earlier research by Joshi et al. [24], which demonstrated that pleasure affects revisit intention, support this. The ECT, especially its last stage of repurchase intention, also explains this notion. According to ECT, happiness from expectations being confirmed reinforces the intention to revisit. Therefore, in order to increase visitor satisfaction and encourage them to return, operators of Indonesia's cultural heritage sites might raise the quality of their services.

5.7 Hypothesis 7

Hypothesis 7 (H7) proposed that satisfaction positively affects WOM. The result showed an original sample value of 0.424, a t-statistics value of 4.671, and a p-value of 0.000. Since the p- p-value is well below 0.05, this hypothesis is also accepted, indicating that satisfaction has a significant positive effect on WOM.

The study by Dini et al. [34] supports this conclusion by demonstrating that a high degree of visitor pleasure can motivate them to suggest a place. The TPB, in especially the attitude toward the behavior component, supports these findings as well, showing that positive WOM is a result of activity driven by satisfaction. Therefore, in order to promote WOM, heritage site managers must focus on visitor pleasure (Table 5).

Table 5. Specific indirect effect results

		Original Sample	T-Statistics	P-Values
Factual UGC → Destination Image → Satisfaction	H8	-0.009	0.178	0.859
Emotional UGC → Destination Image → Satisfaction	H9	0.301	4.288	0.000
Destination Image → Satisfaction → Revisit Intention	H10	0.145	2.684	0.007
Destination Image → Satisfaction → WOM	H11	0.253	4.366	0.000

Source: Primary Data Processing on SmartPLS, 2024

5.8 Hypothesis 8

Hypothesis 8 (H8) proposed that destination image mediates the effect of factual UGC on satisfaction. The results indicated an original sample value of -0.009, a t-statistics value of 1.178, and a p-value of 0.859. Since the p-value is greater than 0.05 and the t-statistics value is below the threshold of 1.96, this hypothesis was rejected, meaning that destination image does not mediate the relationship between factual UGC and satisfaction.

This finding highlights that factual UGC, while offering accurate and objective information about a destination, fails to evoke the emotional or experiential connections necessary to enhance satisfaction. Satisfaction is often influenced by

emotional engagement and interactive experiences, as supported by Dini et al. [34], who found that factual UGC had limited impact on satisfaction when mediated by destination image, especially for destinations lacking strong emotional appeal.

The ECT can also be used to understand this pathway's insignificance. ECT states that when expectations and experiences match, contentment results. Expectations based on objective facts may be created by factual UGC, but dissonance arises if these expectations do not match the destination's emotional or sensory reality. Even when mediated by destination image, factual UGC does not significantly affect satisfaction. These findings imply that, particularly for younger or experience-driven visitor segments, emotional resonance and experiential substance are more important in determining pleasure.

5.9 Hypothesis 9

Meanwhile, Hypothesis 9 (H9) proposed that destination image mediates the effect of emotional UGC on satisfaction. The analysis showed an original sample value of 0.301, a t-statistics value of 4.288, and a p-value of 0.000. As the p-value is less than 0.05 and the t-statistics value exceeds 1.96, this hypothesis is accepted, suggesting that destination image significantly mediates the relationship between emotional UGC and satisfaction.

This result aligns with Dini et al. [34], which emphasizes how emotional content enhances the positive effects of destination image. The TPB further explains this, suggesting that emotional UGC fosters stronger emotional connections between travelers and destinations, which translates into greater satisfaction. For cultural heritage site managers in Indonesia, this finding underscores the importance of leveraging emotive content in their promotional strategies to create lasting impressions and meaningful engagement with tourists.

5.10 Hypothesis 10

Hypothesis 10 (H10) suggested that satisfaction mediates the effect of destination image on revisit intention. The results showed an original sample value of 0.145, a t-statistics value of 2.684, and a p-value of 0.007. With the p-value below 0.05 and the t-statistics value exceeding 1.96, this hypothesis is accepted, indicating that satisfaction plays a significant mediating role in the relationship between destination image and revisit intention.

This finding is consistent with Nguyen Viet et al. [35], who noted that high satisfaction is a strong driver of revisit intentions. TPB provides a theoretical foundation, illustrating that when tourists perceive a destination positively and are satisfied with their experience, it reinforces their behavioral intention to return. Consequently, managers of Indonesia's cultural heritage sites should focus on enhancing the destination image to cultivate satisfaction and, in turn, encourage repeat visits, which are critical for sustainable tourism.

5.11 Hypothesis 11

While Hypothesis 11 (H11) proposed that satisfaction mediates the effect of destination image on WOM. The analysis revealed an original sample value of 0.253, a t-statistics value of 4.366, and a p- p-value of 0.000. Since the p-value is well below 0.05 and the t-statistics value exceeds 1.96, this hypothesis is also accepted, confirming that satisfaction mediates the relationship between destination image and WOM.

The findings are supported by Jayarathne [36], who highlighted that satisfied tourists are more likely to share positive experiences through WOM. Satisfaction acts as an emotional driver, transforming a favorable destination image into actionable behavior, such as recommending the destination to others. For managers of Indonesian cultural heritage sites, this underscores the strategic importance of enhancing satisfaction to amplify the reputation of their sites through positive WOM, ultimately attracting more visitors.

6. CONCLUSIONS AND SUGGESTIONS

6.1 Conclusions

This study explored the impact of UGC on destination image and tourist loyalty behaviors among Generation Z visitors to UNESCO cultural heritage sites in Indonesia. The findings emphasize the pivotal role of emotional UGC in shaping destination image, satisfaction, revisit intention, and WOM. Emotional UGC was found to significantly enhance destination image, which in turn mediates its influence on satisfaction, suggesting that emotionally engaging content resonates strongly with young travelers, fostering positive perceptions and loyalty behaviors.

Conversely, factual UGC exhibited no significant effect on destination image or satisfaction, underscoring its limited role in the context of cultural heritage tourism for Generation Z. This aligns with prior research suggesting that objective information, while practical, lacks the emotional appeal required to drive deeper engagement and loyalty. These results highlight the need for tourism stakeholders to prioritize emotional narratives and visually captivating UGC to cultivate meaningful connections with this demographic.

The study reveals a moderate effect of emotional UGC on destination image while factual UGC exhibits no significant impact. This result underscores the importance of emotional engagement in shaping perceptions among Generation Z tourists. Emotional UGC, such as vivid imagery and relatable narratives, aligns closely with this generation's preferences for authenticity and visually appealing content. As digital natives, Generation Z values peer-shared experiences that evoke personal connections, which explains why emotional UGC resonates more strongly than objective information.

Conversely, factual UGC, while informative, fails to evoke the affective responses needed to enhance destination image or satisfaction. Practical details, though useful for planning, lack the emotional depth to influence loyalty behaviors. This aligns with prior research suggesting that younger audiences prioritize experiential content over purely informational material. These findings indicate that tourism marketers should pivot toward strategies that incorporate emotional narratives, leveraging the power of storytelling and visual appeal to build stronger connections with potential visitors.

Moreover, the mediating role of satisfaction was significant in linking destination image to both revisit intention and WOM, reinforcing its importance as a bridge between positive perceptions and actionable loyalty behaviors. Satisfaction transforms favorable destination images into stronger

behavioral intentions, such as revisiting and recommending the destination to others. These insights provide a nuanced understanding of how UGC and satisfaction interplay to influence loyalty in cultural heritage tourism.

By emphasizing emotional engagement and satisfaction, managers of Indonesia's cultural heritage sites can better align their promotional strategies with the preferences of younger audiences, ensuring sustainable tourism growth and enhanced visitor experiences. Future research could further explore the integration of factual and emotional UGC across diverse demographic and geographic contexts to broaden the applicability of these findings.

6.2 Limitations of the study

While this study provides valuable insights into the impact of UGC on destination image and tourist loyalty behaviors among Generation Z visitors to UNESCO cultural heritage sites in Indonesia, several limitations should be acknowledged. First, the reliance on self-reported data introduces the potential for response bias. Participants may have over- or under-reported their experiences, perceptions, or behaviors due to social desirability or recall inaccuracies. Future studies could incorporate observational or experimental methods to mitigate these biases and enhance data reliability.

Second, the findings of this study have limited generalizability. The sample was drawn exclusively from Generation Z visitors to cultural heritage sites in Indonesia, which may not represent other generational cohorts or tourists in different geographic or cultural contexts. Expanding future research to include diverse demographics and international settings could provide a more comprehensive understanding of UGC's impact. Lastly, while the study effectively examines the mediating roles of destination image and satisfaction, it does not explore potential moderating variables, such as cultural background, travel frequency, or social media proficiency. Addressing these variables in future research could provide a more nuanced perspective on how different factors influence the relationship between UGC and tourist loyalty.

6.3 Suggestions

6.3.1 For future research

Future studies should explore detailed strategies for integrating emotional UGC into promotional campaigns. While this study emphasizes the significance of emotional UGC, providing specific guidelines on the types of narratives, imagery, or formats that resonate most with Generation Z could enhance practical applications. For instance, identifying the most effective platforms and content styles could support tourism developers in maximizing engagement. Additionally, instead of broadly suggesting the inclusion of other demographics, future research should specify which groups to target and why. For example, examining Baby Boomers or Millennials could uncover generational differences in how UGC impacts loyalty behaviors, offering valuable insights through comparative analysis.

Another area for exploration is the alignment of conceptual models with existing frameworks. This study references the TPB and ECT, but the discussion on how the proposed conceptual model builds upon or diverges from these frameworks is limited. Future research could provide a more detailed explanation of how such models integrate prior theories and advance understanding in the context of UGC and tourist loyalty. This could strengthen the theoretical contributions and offer a clearer basis for practical applications.

6.3.2 For tourism stakeholders

Tourism stakeholders should prioritize actionable strategies for implementing emotional UGC effectively. Collaborations with influencers, creating interactive social media campaigns, and highlighting personal stories through visually engaging content are some approaches that could resonate with Generation Z tourists. Furthermore, broadening accessibility and inclusivity should be a focal point. Developers can enhance their sites and promotions to appeal to underrepresented groups, such as tourists with disabilities or international visitors, thereby fostering inclusivity and extending their reach. By adopting these measures, tourism developers can better align with the evolving preferences of diverse audiences, ultimately supporting sustainable tourism growth.

Tourism stakeholders should collaborate with local influencers and content creators who can produce emotionally engaging and authentic narratives about Indonesia's heritage sites. Influencers can document their visits to UNESCO sites, sharing vivid imagery and personal stories that highlight the cultural and emotional value of these destinations. For example, a YouTube travel influencer could create a video series showcasing hidden stories of Borobudur's history while capturing its breathtaking visuals.

By adopting these actionable recommendations, heritage site managers can strengthen the destination image, enhance visitor satisfaction, and foster loyalty behaviors such as revisit intention and positive WOM, ultimately driving sustainable tourism growth.

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APPENDIX

Table A1. Indicators and scale

Variable	Code	Indicators	Scale
Destination Image	DI1	Cultural heritage in Indonesia holds extraordinary universal value.	Likert
	DI2	Cultural heritage in Indonesia is a prominent example of Indonesia's cultural diversity.	
	DI3	Cultural heritage is one of the most unique aspects of culture in Indonesia.	
	DI4	Cultural heritage in Indonesia has a significant impact on global society.	
	DI5	The international community is responsible for protecting heritage sites in Indonesia.	
	DI6	Cultural heritage sites in Indonesia are highly important to both Indonesia and the world.	
	DI7	Cultural heritage sites in Indonesia are must-visit destinations.	
Emotional User- Generated Content	EU1	Emotional UGC creates a perception of the beauty of Indonesia's cultural heritage sites.	Likert
	EU2	Emotional UGC builds a perception of the immense historical value of cultural heritage in Indonesia.	
	EU3	Emotional UGC fosters interest in the natural beauty and historic structures of Indonesia's cultural heritage.	
	EU4	Emotional UGC creates a sense of enjoyment toward Indonesia's cultural heritage sites.	
	EU5	Emotional UGC sparks interest in visiting areas that feature cultural heritage sites in Indonesia.	
	EU6	Emotional UGC encourages interest in visiting historical and cultural buildings at Indonesia's cultural heritage sites.	
	EU7	Emotional UGC shapes the view that Indonesia's cultural heritage sites are worthy of a visit.	
Factual User- Generated Content	FU1	Factual UGC enhances knowledge about cultural heritage sites in Indonesia.	Likert
	FU2	Factual UGC improves understanding of the history of Indonesia's cultural heritage sites.	
	FU3	Factual UGC provides up-to-date information about activities and events at Indonesia's cultural heritage sites.	
Revisit Intention	RI1	The intention to revisit cultural heritage sites in Indonesia.	Likert
	RI2	The plan to revisit cultural heritage sites in Indonesia.	
	RI3	The hope of revisiting cultural heritage sites in Indonesia.	
	RI4	The likelihood of revisiting cultural heritage sites in Indonesia.	
Satisfaction	ST1	Overall satisfaction with the experience of visiting cultural heritage sites.	Likert
	ST2	Feelings of joy during the trip to cultural heritage sites.	
	ST3	Feelings of relaxation while visiting cultural heritage sites.	
	ST4	Enjoyment of the journey to cultural heritage sites.	
WOM	WM1	The desire to recommend cultural heritage sites to my family and friends.	Likert
	WM2	The desire to recommend specific places within cultural heritage sites to others.	
	WM3	The desire to recommend the hotel I stayed at during the trip to others.	
	WM4	The desire to recommend the food I tried during the trip to others.	
	WM5	The desire to recommend the souvenirs I bought to my family and friends.	
	WM6	The desire to share travel tips with others.	
	WM7	The desire to share travel experiences on the Internet.	

Source: Xu et al. [11]