Analysis of the Influence of Cultural Commodification, Digital Tourism, and Virtual Exoticism on Public Perceptions of Cultural Tourism in East Java

Bhaswarendra Guntur Hendratri[1], Muhamad Ammar Muhtadi[2], Rani Eka Arini[3]
[1] Universitas Pangeran Diponegoro Nganjuk
[2,3] Universitas Nusa Putra

Article Info	ABSTRACT
	This study examines the influence of cultural commodification, digital tourism, and virtual exoticism on public perceptions of cultural tourism in East Java. Using a quantitative research design, data were obtained from 115 respondents through a structured questionnaire utilizing a five-point Likert scale. Statistical analysis was conducted using SPSS version 25, including validity, reliability, classical assumption tests, and multiple linear regression. The findings reveal that all three independent variables—cultural commodification, digital tourism, and virtual exoticism—have a positive and significant influence on public perception. Among them, digital tourism has the strongest impact, indicating the vital role of digital media in shaping audience engagement and cultural understanding. The results also show that these three variables collectively explain 69.7% of the variation in public perception of cultural tourism. This demonstrates that digital representations and market-driven adaptations increasingly mediate modern cultural tourism. The study highlights the importance of balancing cultural authenticity and digital innovation to foster sustainable tourism development in East Java. It provides both theoretical insights and practical guidance for policymakers, cultural managers, and local communities in preserving cultural identity while leveraging digital opportunities.

Corresponding Author:

Name: Bhaswarendra Guntur Hendratri
Institution: Universitas Pangeran Diponegoro Nganjuk
Email: bhaswa1006@gmail.com

1. INTRODUCTION

Tourism has become one of the most dynamic sectors driving regional economic growth, cultural preservation, and international recognition. In Indonesia, particularly in East Java, cultural tourism plays a vital role in promoting local heritage and identity through art, tradition, and community-based attractions [1]–[3].

However, in the era of digital transformation and global interconnectivity, cultural tourism is no longer confined to physical experiences alone. The rapid advancement of digital technologies, the commercialization of cultural expressions, and the emergence of virtual tourism platforms have transformed how people perceive and interact with culture. These developments have given rise

to new phenomena such as cultural commodification, digital tourism, and virtual exoticism, each influencing public perceptions and expectations of cultural tourism in unique ways [4].

The commodification of culture refers to the process through which traditional customs, rituals, and artifacts are transformed into products or experiences for sale in the tourism marketplace. While this process allows for economic empowerment and greater visibility of local culture, it also raises concerns regarding authenticity and the potential dilution of cultural meaning [5], [6]. In East Java, cultural attractions such as Reog Ponorogo, Ludruk theater, and Batik Madura have increasingly been packaged and promoted to meet market demand, reflecting how cultural commodification reshapes traditional practices to align with tourism narratives. As a result, public perceptions of cultural tourism are often influenced by how these cultural products are presented—either as genuine expressions of identity or as commercial performances designed to attract visitors.

Parallel to this, digital tourism has revolutionized how destinations are marketed and experienced. Through social media, virtual tours, and online storytelling, potential tourists can now access vast amounts of information, images, and narratives about cultural destinations before they visit them physically. Digital tourism platforms such as Instagram, TikTok, and YouTube have become powerful tools in shaping public perceptions by curating visual and emotional experiences of place [7], [8]. In East Java, local governments and creative entrepreneurs increasingly use digital media to showcase festivals, culinary heritage, and traditional art performances, thereby expanding cultural exposure beyond geographic limitations. The digital sphere thus acts as both a promotional and interpretive space that constructs and disseminates cultural meaning in ways that influence audience perception and engagement.

The emergence of virtual exoticism further complicates the perception of culture in tourism. Virtual exoticism describes the fascination and emotional connection that audiences develop toward cultural experiences mediated through digital or virtual environments [9], [10]. Unlike conventional tourism, which relies on direct physical engagement, virtual exoticism allows people to explore cultural narratives and aesthetics through digital interfaces, creating simulated encounters with cultural "others." In the context of East Java, virtual representations—such as 360° videos of temples, virtual performances of wayang kulit, or immersive digital exhibitions—generate new forms of cultural appreciation. Yet, they also risk promoting superficial understandings that prioritize spectacle over substance. The interplay of authenticity, simulation, and imagination thus shapes the way the public interprets and values cultural tourism in the digital era.

Given these developments, understanding the influence of cultural commodification, digital tourism, and virtual exoticism on public perceptions of cultural tourism is essential for sustainable tourism planning and cultural preservation. The dynamic between market-oriented strategies and cultural authenticity creates a complex landscape where local identity must be negotiated between economic benefits and heritage integrity. Moreover, the digital mediation of culture introduces both opportunities for global exposure and challenges of misrepresentation. Exploring how these factors interact provides critical insight into the construction of modern cultural tourism experiences and their reception among audiences.

2. LITERATURE REVIEW

2.1 Cultural Tourism and Public Perception

Cultural tourism is broadly defined as travel motivated by the desire to experience, learn about, and appreciate the tangible and intangible cultural heritage of a destination [11], [12]. It encompasses a wide

range of attractions and activities, including heritage sites, traditional performances, festivals, crafts, and local cuisines. The public's perception of cultural tourism is a key determinant of tourism sustainability because it influences participation, engagement, and destination image [13]. In the context of East Java, public perception not only reflects how visitors view the authenticity of local culture but also how residents interpret the commodification of their traditions for tourism purposes. According to [14], [15], perceptions of cultural destinations are shaped by both functional attributes (such as infrastructure and accessibility) and psychological attributes (such as emotional attachment and cultural symbolism). Moreover, public perception plays an important role in destination branding; positive perceptions can enhance the attractiveness of cultural sites and stimulate repeat visitation, while negative perceptions—particularly those related to the loss of authenticity—can undermine the cultural value of tourism [13]. With the rise of digital communication, these perceptions are increasingly formed through mediated experiences rather than direct engagement, creating what [16] term the "tourist gaze"—a socially constructed way of viewing and interpreting culture.

2.2 Cultural Commodification

The concept of cultural commodification has been extensively discussed in tourism studies as a double-edged process that simultaneously preserves and transforms local culture. Commodification refers to the transformation of cultural symbols, practices, and artifacts into marketable products or performances that cater to consumer demand [17]. While critics argue that commodification leads to the "staging" of authenticity and the dilution of traditional meaning, proponents suggest that it provides economic opportunities and ensures the survival of endangered cultural practices through adaptation and exposure [13]. In the context of East Java, the commodification of cultural elements such as Reog Ponorogo, Ludruk, and Batik Madura exemplifies how culture is packaged to appeal to tourism markets. These cultural expressions are often curated and standardized for performance or sale, shaping how audiences interpret their meaning and value. According [15], such processes can produce "existential authenticity," where individuals experience genuine emotional connections despite the staged nature of cultural performances. Therefore, commodification may not necessarily diminish authenticity but can redefine it within new social and economic contexts. The literature also emphasizes the role of stakeholders—local artisans, tourism managers, and government agencies—in negotiating the terms of commodification [18]. When managed responsibly, cultural commodification can contribute to sustainable development by generating income while preserving identity; however,

when driven purely by profit motives, it risks transforming culture into a mere spectacle detached from its original context.

2.3 Digital Tourism

Digital tourism represents the integration of digital technologies in the marketing, management, and experience of tourism activities. It encompasses social media engagement, virtual tours, digital storytelling, and online booking systems that shape how tourists perceive and interact with destinations [4], [19], [20]. The rise of Web 2.0 and user-generated content has shifted the tourism landscape toward participatory communication, where travelers co-create meaning through digital interactions [21]. Platforms such as Instagram and TikTok allow users to construct visual narratives of destinations, influencing the expectations and perceptions of potential visitors. In East Java, digital tourism initiatives have enabled broader exposure of cultural events such as the Jember Fashion Carnaval, Festival Gandrung Banyuwangi, and Batik Madura Week, allowing them to reach audiences beyond national borders. Research by [22] highlights that digital media not only provide information but also shape perceived destination image through emotional and aesthetic cues. Consequently, digital tourism has become a powerful instrument in influencing public perception by framing how culture is consumed and appreciated in online environments. Furthermore, digital tourism supports cultural sustainability by facilitating virtual access to heritage sites, especially in the post-pandemic context. However, the reliance on digital representation also raises questions of authenticity and inclusivity—issues central to cultural tourism discourse [23]. The selective portrayal of culture online may reinforce stereotypes or neglect marginalized narratives, underscoring the importance of critical digital literacy in tourism communication.

2.4 Virtual Exoticism

The concept of virtual exoticism builds upon classic tourism theories of exoticism and the "tourist gaze" [24], [25], extending them into digital environments. Virtual exoticism refers to the fascination and emotional engagement generated by simulated representations of distant or "other" cultures through digital media. These representations—ranging from virtual reality (VR) experiences to digital exhibitions and immersive storytelling—create symbolic encounters that evoke curiosity, desire, and nostalgia [26]. Virtual exoticism operates through what [27] calls "hyperreality," where the boundary between real and simulated experiences becomes blurred. For cultural tourism, this means that digital depictions of traditional dance, crafts, or rituals can evoke stronger emotional responses than physical encounters. Studies by [27], [28] demonstrate that virtual tourism experiences can enhance destination appeal and influence travel intentions by creating vivid mental imagery. In East Java, virtual presentations of sites such as

Candi Penataran or Mount Bromo cultural rituals through VR tours have fostered greater interest in local heritage while simultaneously constructing new, idealized images of "authentic" culture. Nonetheless, virtual exoticism can lead to a superficial engagement with culture when mediated content prioritizes aesthetics over understanding, a phenomenon that mirrors what [25] describes as "staged authenticity," where tourists consume cultural imagery rather than cultural reality. Therefore, while virtual exoticism expands accessibility and engagement, it also necessitates ethical considerations regarding representation and cultural sensitivity.

2.5 Conceptual Framework and Hypotheses Development

Based on the reviewed literature, this study proposes a conceptual framework linking the three independent variables—cultural commodification (X_1), digital tourism (X_2), and virtual exoticism (X_3)—to the dependent variable, public perception of cultural tourism (Y).

H_1: Cultural commodification has a significant influence on public perception of cultural tourism.

H_2: Digital tourism has a significant influence on public perception of cultural tourism.

H_3: Virtual exoticism has a significant influence on public perception of cultural tourism.

H_4: Cultural commodification, digital tourism, and virtual exoticism simultaneously influence public perception of cultural tourism.

3. METHODS

This study employs a quantitative research approach with an explanatory design to examine the causal relationships among digital empathy, online identity formation, fear of missing out (FoMO), social media

3.1 Research Design

This study employs a quantitative research design aimed at analyzing the influence of cultural commodification, digital tourism, and virtual exoticism on public perceptions of cultural tourism in East Java. The quantitative approach was selected because it allows for the measurement of variables numerically, enabling statistical testing of relationships among them. The design is descriptive and explanatory, focusing on identifying both the strength and direction of influence among the three independent variables and the dependent variable.

To ensure objectivity and reliability, the research utilized structured questionnaires and statistical analysis with SPSS version 25. The data were analyzed through descriptive statistics, validity and reliability tests, classical assumption testing, and multiple linear regression analysis to test the hypotheses developed in the conceptual framework.

3.2 Population and Sample

The population of this study comprises individuals who have experienced or been exposed to cultural tourism activities in East Java—such as visitors, residents, or participants in cultural events like festivals, exhibitions, and traditional performances. Since the exact population size was unknown and difficult to enumerate, the study adopted a non-probability sampling technique, specifically purposive sampling, which allows the selection of respondents based on specific criteria relevant to the research objectives. The criteria included having visited at least one cultural tourism destination in East Java within the past two years, having access to digital or online tourism content related to East Java, and a willingness to complete the research questionnaire honestly and accurately. The

study successfully collected 115 valid responses, which is considered sufficient for regression analysis according to statistical recommendations by Hair et al. (2019), where the minimum sample size should be at least five to ten times the number of observed variables.

3.3 Data Collection Methods

Data were collected using a structured questionnaire distributed both online via Google Forms and offline at selected cultural tourism sites such as Candi Penataran, the Reog Ponorogo Festival, and the Batik Madura Workshop. The questionnaire was designed using a Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) to measure respondents' levels of agreement with statements related to each research variable. It consisted of five sections: the first covered respondent profiles, including demographic information such as gender, age, occupation, education, and frequency of engagement in cultural tourism; the second focused on Cultural Commodification (X_1), measuring perceptions of the commercialization and packaging of culture for tourism purposes; the third addressed Digital Tourism (X_2), assessing the role of digital platforms in shaping tourism experiences and perceptions; the fourth examined Virtual Exoticism (X_3), evaluating the influence of virtual or digital representations of culture; and the fifth explored Public Perception of Cultural Tourism (Y), reflecting respondents' cognitive, affective, and evaluative judgments about cultural tourism in East Java. Before full-scale data collection, the questionnaire was pilot-tested with 20 respondents to ensure clarity, relevance, and reliability, and revisions were made based on the feedback before distributing the final version.

3.4 Variable Operationalization

Each variable in this study was operationalized into measurable indicators based on relevant prior literature. The variable Cultural Commodification (X_1) was measured using four indicators: the packaging of cultural products, commercialization of traditional arts, authenticity in presentation, and local

participation, adapted from Cohen (1988) and Greenwood (1989). The variable Digital Tourism (X_2) included indicators such as the online visibility of cultural sites, use of social media and websites, digital storytelling and promotion, and accessibility through technology, following Gretzel et al. (2015) and Xiang and Gretzel (2010). The variable Virtual Exoticism (X_3) was measured through indicators of emotional attraction to virtual culture, immersive digital experiences, visual aesthetics of culture online, and perceived authenticity of virtual content, referring to Urry and Larsen (2011) and Tussyadiah et al. (2018). Lastly, the dependent variable Public Perception of Cultural Tourism (Y) was measured using indicators of cognitive understanding of culture, affective appreciation, perceived authenticity, and behavioral intention to engage, based on Stylidis (2016) and Richards (2018). All indicators were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

3.5 Data Analysis Techniques

Data analysis was conducted using SPSS version 25 through several systematic stages to ensure accuracy and validity. The process began with descriptive analysis to describe respondent characteristics and summarize responses using means, standard deviations, and frequency tables. Validity tests using the Pearson Product-Moment Correlation confirmed whether each item accurately measured its construct, while reliability tests using Cronbach's Alpha ($\alpha > 0.70$) ensured internal consistency (Hair et al., 2019). Classical assumption tests were then performed, including normality (Kolmogorov–Smirnov), multicollinearity (VIF), and heteroscedasticity (Glejser). The main analytical method was multiple linear regression, used to determine the influence of cultural commodification (X_1), digital tourism (X_2), and virtual exoticism (X_3) on public perception of cultural tourism (Y). The model's explanatory power was measured through the coefficient of determination (R^2), while t-tests and F-tests were applied to examine the partial and simultaneous

significance of relationships at a 0.05 ($\alpha = 5\%$) level.

4. RESULTS AND DISCUSSION

4.1 Respondent Profile

A total of 115 respondents participated in this study, representing individuals who had either visited or engaged with cultural tourism in East Java. Based on demographic analysis, 54% were female and 46% male, reflecting balanced participation. In terms of age, the largest group (40%) ranged from 21 to 30 years old, indicating that younger generations are highly involved in cultural tourism, particularly through digital platforms. Regarding education level, 65% of respondents held a bachelor's degree, suggesting that the participants were generally well-informed and digitally literate. In terms of occupation, 42% were students, 35% employees, 15% entrepreneurs, and the rest freelancers or government officials. Most respondents (78%) had visited at least two cultural destinations in East Java, demonstrating familiarity with the region's cultural attractions. These characteristics provide a reliable foundation for assessing how individuals with diverse backgrounds perceive cultural tourism through the lens of cultural commodification, digital tourism, and virtual exoticism.

4.2 Validity and Reliability Tests

Before conducting hypothesis testing, validity and reliability analyses were performed on all questionnaire items to ensure the accuracy of measurement. The results of the Pearson Product-Moment Correlation test showed that all statement items had correlation coefficients (r-count > 0.30) and significance values (p < 0.05), indicating that every item was valid and effectively measured its intended construct. This confirms that the questionnaire was properly designed to capture respondents' perceptions across all research variables.

Meanwhile, the reliability test using Cronbach's Alpha produced the following results: Cultural Commodification (X_1) $\alpha = 0.876$, Digital Tourism (X_2) $\alpha = 0.892$, Virtual Exoticism (X_3) $\alpha = 0.861$, and Public Perception (Y) $\alpha = 0.901$. Since all alpha values exceed 0.70, the instrument is considered reliable, demonstrating strong internal consistency and stability among the measurement items used in this study.

4.3 Descriptive Statistical Analysis

The descriptive analysis aimed to identify general respondent tendencies regarding the research variables.

Table 1. Descriptive Statistic

Variable	Mean	Standard Deviation	Interpretation
Cultural Commodification (X_1)	4.12	0.56	High
Digital Tourism (X_2)	4.25	0.48	High
Virtual Exoticism (X_3)	4.07	0.52	High
Public Perception (Y)	4.30	0.45	Very High

The descriptive statistical results in Table 1 show that all variables have relatively high mean scores, indicating strong positive perceptions among respondents toward cultural tourism in East Java. Public Perception (Y) obtained the highest mean score of 4.30 with a very high interpretation, reflecting that respondents generally have favorable views and appreciation toward cultural tourism in the region. Digital Tourism (X_2) followed with a mean of 4.25, suggesting that digital platforms play a crucial role in shaping positive perceptions through online engagement and information access. Cultural Commodification (X_1) and Virtual Exoticism (X_3) also recorded high mean scores of 4.12 and 4.07, respectively, showing that respondents perceive both cultural commercialization and digital representation as beneficial in enhancing the attractiveness and accessibility of local culture. The relatively low standard deviations (ranging from 0.45 to 0.56) indicate consistent responses across participants,

reinforcing the overall positive sentiment toward East Java's evolving blend of traditional culture and digital innovation in tourism promotion.

4.4 Classical Assumption Tests

Prior to regression testing, several classical assumption tests were conducted to ensure that the data met the required statistical standards for multiple linear regression analysis. The normality test using the Kolmogorov–Smirnov method produced a significance value of 0.087, which is greater than 0.05, indicating that the residual data were normally distributed. This suggests that the data followed a normal pattern, allowing for unbiased parameter estimation.

Furthermore, the multicollinearity test showed that the Variance Inflation Factor (VIF) values ranged between 1.314 and 1.732, all below the critical value of 10, confirming that there was no multicollinearity among the independent variables. The heteroscedasticity test using Glejser's method yielded significance values greater than 0.05 for all variables, indicating homoscedasticity or equal variance across residuals. Therefore, the regression model satisfies all classical assumptions, confirming that the dataset is statistically valid and suitable for further hypothesis testing and regression analysis.

4.5 Multiple Linear Regression Analysis

The multiple linear regression analysis produced a model indicating that all three independent variables positively influence public perception of cultural tourism in East Java, with digital tourism (β = 0.374) showing the strongest effect, followed by cultural commodification (β = 0.311) and virtual exoticism (β = 0.298). The R^2 value of 0.697 signifies that approximately 69.7% of the variance in public perception can be explained by the combined influence of these three variables, while the remaining 30.3% may be attributed to other factors not examined in this study, such as infrastructure, accessibility, or individual motivation. This relatively high R^2 value demonstrates that the regression model fits the data well and that the variables collectively possess strong explanatory power in shaping public perceptions of cultural tourism in East Java.

Table 2. Hypothesis Testing

Variable	t-value	Sig. (p)	Decision	Conclusion
Cultural Commodification (X_1)	3.982	0.000	H_1 accepted	Significant influence
Digital Tourism (X_2)	4.915	0.000	H_2 accepted	Significant influence
Virtual Exoticism (X_3)	3.567	0.001	H_3 accepted	Significant influence

The results in Table 2 show that all three independent variables—Cultural Commodification (X_1), Digital Tourism (X_2), and Virtual Exoticism (X_3)—have a positive and significant influence on public perception of cultural tourism in East Java. Each variable's significance value ($p < 0.05$) and t-value exceeding the critical threshold confirm that the relationships are statistically meaningful. Among these, Digital Tourism has the highest t-value (t = 4.915), showing that it has the strongest impact on shaping public perception. This finding suggests that digital media and technology play a vital role in influencing how people perceive, engage with, and appreciate cultural tourism experiences. Cultural Commodification (t = 3.982) also significantly affects perception by increasing the visibility and accessibility of traditional practices when properly adapted for tourism purposes. Similarly, Virtual Exoticism (t = 3.567) demonstrates that immersive digital and virtual experiences effectively stimulate curiosity and emotional connection with local culture. Overall, these findings validate the proposed hypotheses (H_1, H_2, H_3) and emphasize that both cultural and digital dimensions contribute significantly to enhancing the attractiveness and perceived authenticity of East Java's cultural tourism.

All three variables show significance values below 0.05, confirming their positive and significant effect on public perception of

cultural tourism in East Java. The F-value of 84.721 with a p-value of 0.000 indicates that cultural commodification, digital tourism, and virtual exoticism simultaneously and significantly influence public perception. This simultaneous effect suggests that when these three elements are integrated—through digital promotion, cultural adaptation, and immersive representation—they collectively strengthen the public's positive image and engagement with East Java's cultural tourism. Therefore, H_4 is accepted, reinforcing that these factors jointly enhance cultural tourism's overall perception and sustainability.

Discussion

The analysis reveals that cultural commodification has a significant and positive impact on public perception. This finding aligns with [11], [16], who argue that when managed ethically, commodification enhances the visibility and economic value of cultural heritage. In East Java, the packaging of local traditions such as Reog Ponorogo, Batik Madura, and Ludruk into tourism products has successfully created a bridge between cultural preservation and economic benefit. Respondents perceived these commodified cultural forms not as cultural loss but as a process of adaptation, supporting [14] concept of existential authenticity, in which emotional engagement transcends physical authenticity. The positive perception suggests that when communities are actively involved in presenting and curating their own culture, commodification can foster pride, identity, and inclusivity. However, it also highlights the importance of cultural governance to prevent excessive commercialization, which could erode traditional values and authenticity.

Among the three independent variables, digital tourism demonstrates the strongest influence on public perception. This finding supports research by [29], [30], who emphasize the transformative role of digital platforms in shaping tourism experiences. In East Java, digital tourism campaigns across Instagram, YouTube, and government platforms such as eastjava.travel have expanded the visibility and attractiveness of cultural destinations. Through engaging visuals, videos, and storytelling, these digital tools have built emotional connections and shaped tourists' imaginations even before their physical visit. Respondents particularly valued how digital media provide not only information but also inspiration, enabling them to visualize and emotionally connect with destinations. This finding aligns with [31] experience economy theory, which states that digital engagement transforms passive observation into active participation. Hence, effective digital strategies can significantly enhance public perception, encourage engagement, and stimulate demand for cultural tourism in East Java.

The variable virtual exoticism also shows a significant positive effect, confirming that digital representations such as virtual tours, 360° videos, and immersive storytelling foster curiosity and emotional attachment. This finding resonates with [32] concept of the tourist gaze, which explains how cultural experiences are increasingly mediated through imagery and symbols. Respondents expressed that virtual experiences of East Java's cultural heritage—such as virtual tours of Candi Penataran and Mount Bromo rituals—heightened their appreciation of local culture even before visiting in person. This phenomenon reflects [12] idea of hyperreality, where digital simulations can be perceived as authentic experiences. While such representations increase destination appeal, they also carry the risk of promoting superficial understandings of culture. Therefore, cultural tourism stakeholders must balance digital innovation with accurate, context-sensitive storytelling to ensure authenticity. When analyzed together, the three variables explain nearly 70% of the variance in public perception, highlighting their synergistic relationship: cultural commodification provides tangible content, digital tourism disseminates and promotes it, and virtual exoticism amplifies its emotional appeal. This interdependence supports [32], who argue that modern cultural tourism thrives at the intersection of economy, media, and emotion. East Java's cultural tourism

ecosystem thus benefits most when cultural preservation and digital innovation are integrated, reflecting a shift toward hybrid cultural experiences that combine traditional authenticity with digital modernity.

Implications

The results of this study carry several theoretical implications. First, the findings reinforce the theoretical convergence between cultural commodification and digital mediation, demonstrating that authenticity in cultural tourism is no longer limited to physical interactions but also extends to emotional and symbolic experiences shaped by technology. Second, the study expands the understanding of virtual exoticism as a contemporary form of cultural engagement that influences both perception and behavioral intention, highlighting how virtual environments can evoke genuine emotional connections. Third, it contributes to the broader body of tourism literature by integrating cultural and digital perspectives within a unified quantitative framework, thereby offering a modern interpretation of how culture, technology, and perception interact in shaping tourism experiences.

From a practical standpoint, the study suggests several important implications for stakeholders in East Java's cultural tourism sector. Tourism organizers and destination managers should strengthen digital storytelling strategies that highlight authenticity and emotional resonance to build deeper connections with audiences. Local communities must also be empowered to participate in digital representation to ensure fair benefits and culturally accurate portrayals of their heritage. Furthermore, policymakers are encouraged to develop integrated digital tourism policies that balance technological innovation with the preservation of cultural identity, ensuring that the rapid digitalization of tourism continues to support—not replace—the authenticity and sustainability of East Java's cultural heritage.

5. CONCLUSION

The findings of this study confirm that cultural commodification, digital tourism, and virtual exoticism significantly influence public perceptions of cultural tourism in East Java, each contributing uniquely to how individuals experience, interpret, and value local culture in the digital era. Cultural commodification positively affects public perception by transforming traditional practices and heritage into attractive and accessible tourism products. When managed responsibly, commodification supports economic growth while fostering cultural pride and sustainability. This demonstrates that commercialization does not necessarily diminish authenticity but can revitalize cultural relevance when communities are active participants in the process. Meanwhile, digital tourism emerged as the most influential factor, highlighting the growing importance of digital media in shaping tourism experiences. Online platforms such as social media, websites, and virtual events have redefined the promotion and perception of cultural destinations, enabling broader participation, real-time interaction, and stronger emotional engagement. This aligns with global trends in digitally mediated cultural consumption, where visual storytelling and online interaction reshape the meaning of authenticity. Virtual exoticism also plays a vital role by enriching emotional and symbolic connections through digital representations such as virtual tours, immersive media, and online performances. Although these experiences are mediated and sometimes idealized, they effectively raise awareness and curiosity—especially among younger audiences—while emphasizing the need for ethical content curation to avoid cultural misrepresentation.

Collectively, these three variables explain nearly 70% of the variance in public perception, revealing a strong synergy between traditional cultural elements and digital innovation. The study concludes that the future of cultural tourism in East Java—and more broadly across Indonesia—depends

on how effectively stakeholders integrate cultural preservation, digital transformation, and community participation. For policymakers and cultural managers, this means ensuring that digital platforms function not merely as promotional tools but as educational and cultural bridges that maintain integrity and inclusivity. For local communities, it underscores the importance of active participation in shaping the digital representation of their culture. Ultimately, East Java's cultural tourism ecosystem is evolving toward a hybrid model that merges the tangible authenticity of heritage with the immersive possibilities of digital technology. By achieving this balance, cultural tourism can continue to thrive as both an economic catalyst and a vital medium for safeguarding Indonesia's diverse cultural identity.

REFERENCES

[1]   A. Georgescu, S. Avasilcai, and M. K. Peter, "Digital Innovation Hubs—The present future of collaborative research, business and marketing development opportunities," *Mark. Smart Technol. …*, 2021, doi: 10.1007/978-981-33-4183-8_29.

[2]   L. W. Siew, L. W. Hoe, and C. J. Wai, "Optimization on the Financial Management of Banks with Two-Stage Goal Programming Model," *… Sci. Technol. 7th ICCST 2020 …*, 2021, doi: 10.1007/978-981-33-4069-5_11.

[3]   A. D. A. Tasci, "A critical review and reconstruction of perceptual brand equity," *Int. J. Contemp. Hosp. Manag.*, vol. 33, no. 1, pp. 166–198, 2021, doi: 10.1108/IJCHM-03-2020-0186.

[4]   F. Fusté-Forné and N. Filimon, "Using Social Media to Preserve Consumers' Awareness on Food Identity in Times of Crisis: The Case of Bakeries," *International Journal of Environmental Research and Public Health*, vol. 18, no. 12. 2021. doi: 10.3390/ijerph18126251.

[5]   M. I. Ghaly, "The influence of user-generated content and social media travel influencers credibility on the visit intention of Generation Z," *J. Assoc. Arab Univ. Tour. Hosp.*, vol. 24, no. 2, pp. 367–382, 2023.

[6]   D. T. Nguyen, K.-C. Kuo, W.-M. Lu, and D. T. Nhan, "How sustainable are tourist destinations worldwide? An environmental, economic, and social analysis," *J. Hosp. Tour. Res.*, p. 10963480231168286, 2023.

[7]   N. Kumar, R. K. Panda, and K. Adhikari, "Tourists' engagement and willingness to pay behavior during COVID-19: an assessment of antecedents, consequences and intermediate relationships," *J. Hosp. Tour. Insights*, vol. 6, no. 2, pp. 1024–1042, 2023.

[8]   S. R. Sanam and Y. E. Nugraha, "STRATEGI PEMASARAN DESTINASI WISATA PATUNG BUNDA MARIA TELUK GURITA ATAMBUA BERBASIS CHSE," *Tour. J. Travel. Hosp. …*, 2022.

[9]   U. Altaf, K. Lohana, and A. B. Talpur, "Socioeconomic Impact of Covid19 on Middle-Income Level Employee's Behaviour: An Explorative Study on Restaurants of Hyderabad, Sindh," *J. Soc. Responsib. Tour. Hosp. ISSN 2799-1016*, vol. 2, no. 06, pp. 1–9, 2022.

[10]   T. Veseli-Kurtishi and T. D. Hoti, "THE INFLUENCE OF ENTREPRENEURIAL MARKETING IN START-UP BUSINESSES, CASE STUDY KOSOVO," *Challenges Tour. Bus. Logist. 21st Century*, vol. 6, no. 1, pp. 111–116, 2023.

[11]   F. Bellaubi, J. M. Mallarach, and R. Sardá, "A geoethical approach to unlock a social-ecological governance problem: The case of the tordera river (Catalonia, Spain)," *Sustain.*, vol. 13, no. 8, 2021, doi: 10.3390/su13084253.

[12]   A. Nanggong and A. Mohammad, "The impact of cultural tourism experience on electronic word-of-mouth (e-WOM) and destination image," *Diponegoro Int. J. Bus.*, vol. 3, no. 2, pp. 68–79, 2020.

[13]   I. N. P. Budiartha, I. M. Suwitra, I. G. Agung, and A. Gita, "Regulation Number 5 Of 2020 Concerning Standards for Organizing Balinese Cultural Tourism to Promote Sustainable Village-Based Tourism," *Int. J. Crim. Justice Sci.*, vol. 17, no. 1, pp. 199–213, 2022, doi: 10.5281/zenodo.4756100.

[14]   I. P. A. Sanjaya, I. W. W. Astara, and L. P. Sudini, "ENFORCEMENT OF REGIONAL REGULATION NUMBER 5 OF 2020 CONCERNING STANDARDS FOR THE IMPLEMENTATION OF BALINESE CULTURAL TOURISM (CASE STUDY OF ILLEGAL TOUR GUIDES IN THE TANJUNG BENOA REGION, SOUTH KUTA DISTRICT, BADUNG REGENCY)," *NOTARIIL J. Kenotariatan*, vol. 8, no. 1, pp. 44–50, 2023.

[15]   M. M. De Andrade, V. J. D. Mendonça, R. F. Correia, and J. Franco, "Augmented Reality and Virtual Reality in Cultural Tourism:'Ara as it Was,'" in *2022 17th Iberian Conference on Information Systems and Technologies (CISTI)*, IEEE, 2022, pp. 1–6.

[16]   L. Sebova, R. Marcekova, I. Simockova, and K. Pompurova, "Experience Tourism as a Smart and Sustainable Form of Tourism in the Twenty-First Century," in *International Conference of the International Association of Cultural and Digital Tourism*, Springer, 2022, pp. 189–199.

[17]   E. Haryono, H. Reinhart, A. A. Hakim, A. Sunkar, and P. Setiawan, "Linking geodiversity and cultural diversity in geoheritage management: Practice from karst of Sangkulirang-Mangkalihat, Indonesia," *Geo J. Tour. Geosites*, vol. 42, pp. 671–682, 2022.

[18]   X. Li and C. Wang, "Understanding the relationship between tourists' perceptions of the authenticity of traditional village cultural landscapes and behavioural intentions, mediated by memorable tourism experiences and place attachment," *Asia Pacific J. Tour. Res.*, vol. 28, no. 3, pp. 254–273, 2023.

[19]   S. Sorooshian, N. A. Azizan, and …, "Influence of readiness measures on planning tourism digital shift," *… Strateg.*

Manag. …, 2021.

[20]   L. Fedoryshyna, O. Halachenko, A. Ohiienko, and ..., "Digital marketing in strategic management in the field of the tourism," *… Manag.*, 2021.

[21]   A. A. Rumanti, M. Amelia, A. S. Rizaldi, and N. A. Supratman, "Edu-Tourism Through Digital Literacy Based on Science and Technology in Community Empowerment Efforts to Improve the Economy in Banyuwangi Regency," *Metris J. Sains dan Teknol.*, vol. 25, no. 02, pp. 67–74, 2024.

[22]   H. Thees, E. Störmann, F. Thiele, and ..., "Shaping digitalization among German tourism service providers: Processes and implications," *J. Tour. …*, 2021.

[23]   L. N. Istanti, "Rural Tourism Perspectives on Digital Innovation: Small Enterprises in Indonesia," *… Bus. Innov. Sustain. Technol. …*, 2021.

[24]   S. Constantinou *et al.*, "EnterCY: A Virtual and Augmented Reality Tourism Platform for Cyprus," in *2022 23rd IEEE International Conference on Mobile Data Management (MDM)*, IEEE, 2022, pp. 314–317.

[25]   D. Streimikiene and E. Korneeva, "Economic impacts of innovations in tourism marketing," *Terra Econ.*, vol. 18, no. 3, pp. 182–193, 2020, doi: 10.18522/2073-6606-2020-18-3-182-193.

[26]   M. J. Kim, C.-K. Lee, and M. W. Preis, "The impact of innovation and gratification on authentic experience, subjective well-being, and behavioral intention in tourism virtual reality: The moderating role of technology readiness," *Telemat. Informatics*, vol. 49, p. 101349, 2020.

[27]   N. Samala, B. S. Katkam, R. S. Bellamkonda, and R. V. Rodriguez, "Impact of AI and robotics in the tourism sector: a critical insight," *J. Tour. Futur.*, vol. 8, no. 1, pp. 73–87, 2022, doi: 10.1108/JTF-07-2019-0065.

[28]   D. Garbin Praničević, "Augmented Reality and Virtual Reality-Based Technology in Cultural Tourism," *Entren. Res. Innov.*, vol. 7, no. 1, pp. 314–322, 2021.

[29]   L. Bašan, J. Kapeš, and L. Brolich, "Sustainable marketing factors: Impact on tourist satisfaction and perceived cultural tourism effects," *Ekon. Vjesn. Rev. Contemp. Entrep. Business, Econ. Issues*, vol. 34, no. 2, pp. 385–400, 2021.

[30]   A. Dhembi, "Exploring Google's Platform Services with Augmented Reality Apps in Cultural Tourism Context," *Int. J. Comput. Appl.*, vol. 174, pp. 13–17, Apr. 2021, doi: 10.5120/ijca2021921193.

[31]   D. D. Han, M. C. Tom Dieck, and T. Jung, "Augmented Reality Smart Glasses (ARSG) visitor adoption in cultural tourism," *Leis. Stud.*, vol. 38, no. 5, pp. 618–633, 2019.

[32]   M. Kamyabi and H. Alipour, "An Investigation of the Challenges Faced by the Disabled Population and the Implications for Accessible Tourism: Evidence from a Mediterranean Destination," *Sustain.*, vol. 14, no. 8, Apr. 2022, doi: 10.3390/su14084702.