



SMART CITY-BASED TOURISM DEVELOPMENT IN SURABAYA'S OLD TOWN

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Abstract :

The development of heritage tourism areas requires an approach that focuses not only on physical preservation, but also on governance, technology utilization, and regional sustainability. This study aims to analyze the development of Surabaya Old Town Tourism in terms of the Smart City concept through six main pillars, namely Smart Governance, Smart Branding, Smart Economy, Smart Living, Smart Society, and Smart Environment. This study uses a qualitative descriptive approach with data collection techniques through field observations, interviews with related parties, as well as documentation and literature studies. Data analysis was carried out using the interactive model of Miles and Huberman which includes data reduction, data presentation, and drawing conclusions. The research results show that the development of Surabaya's Old Town Tourism has led to the implementation of the Smart City concept, although the level of implementation varies across pillars. The Smart Branding and Smart Economy pillars show relatively strong achievements through digital promotion, cultural events, and the growth of MSMEs and creative economy activities. The Smart Governance pillar has been supported by regional revitalization policies and the use of digital services, but has not been fully integrated. Meanwhile, the implementation of Smart Living, Smart Society, and Smart Environment still faces several challenges, particularly in terms of regional security, the sustainability of community participation, and the limited green space and shading elements. Overall, the six Smart City pillars are interconnected and form a heritage tourism area management system, so a more integrated, sustainable, and participatory development strategy is needed to increase the competitiveness of Surabaya's Old Town Tourism.

Keywords : Smart City, heritage tourism, Old Town of Surabaya, tourism development

INTRODUCTION

Tourism is the activity of traveling by individuals or groups to a specific destination for a specific period of time for recreation, personal development, or educational purposes (Rizky, 2020). In addition to providing experiences for tourists, the tourism sector also involves various supporting elements, such as the availability of facilities and services, as well as the roles of the government, businesses, and the community (Adjie, 2020).

In the context of national development, tourism plays a strategic role in driving economic growth, creating jobs, and preserving cultural and historical values (Richardson & Sustainability, 2025). According to Damayanti et al. (2024), one form of tourism development with strategic value is cultural tourism, which prioritizes cultural heritage and historical areas as its primary



attractions. Cultural tourism serves not only as a means of recreation but also as a medium for education and the preservation of local values, ensuring their sustainability amidst rapid technological developments and modernization (Udayana & Sudirman, 2021). Therefore, tourism development is not only oriented towards increasing the number of visits but also on the quality of sustainable destination management.

East Java Province is one of the regions in Indonesia with significant potential for cultural tourism development (Yeni Rahmawati, 2025). Each region possesses unique histories, traditions, and cultural heritage that are still preserved to this day, from royal sites to historical areas. The diversity of history, traditions, and cultural heritage spread across East Java makes it a tourist destination that is not only recreational but also educational (Munfarida & Anshori, 2024). With this abundant potential, the development of cultural tourism in East Java is a crucial part of driving the sustainable progress of the tourism sector while strengthening the region's cultural identity (Yazid, 2025).

Tourism in East Java is showing much faster growth than in other Indonesian provinces. This is evident in the increasing number of local tourist visits to East Java, which reached 6.3 million throughout the year (Central Bureau of Statistics, 2024).

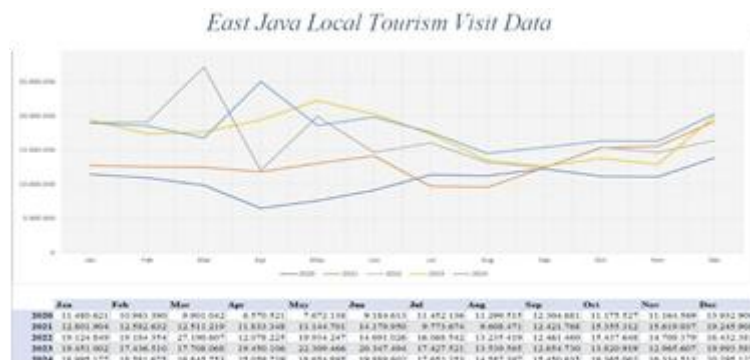


Figure 1 : BPS Data for East Java Province 2024

However, the increase in tourism activities poses challenges in infrastructure management, visitor comfort, and environmental sustainability, so that a tourism development strategy is needed that not only focuses on economic growth, but also pays attention to the balance between cultural preservation and sustainable resource utilization. (Balqis Salma Nabila, M. Kendry Widiyanto, 2025).

As the capital of East Java Province, Surabaya plays a crucial role in regional tourism development. Surabaya holds significant potential for developing tourist destinations, particularly those with historical significance (Nugroho & Idajati, 2019). One area with significant historical significance is Surabaya's Old Town, a colonial heritage site with distinctive architectural characteristics and cultural diversity. Surabaya's Old Town preserves historical and cultural heritage from various ethnicities, including Arabs, Chinese, Europeans, and Malays. These heritage sites are found in the unique

architecture of the buildings, local historical narratives, and the presence of cultural communities within the area, making it a highly heritage-rich area (Anggraini, 2023).

Surabaya tourism plays a strategic role in the regional economy and development, given its rich culture, history, and diverse tourist attractions. In recent years, the Surabaya City Government has undertaken various revitalization efforts, particularly in the Old Town area of Surabaya, with the aim of revitalizing the area's function as a tourist destination, while maintaining the preservation of cultural heritage buildings (Agustin, 2021). Along with the development of modern cities, Surabaya has also adopted the Smart City concept as an urban development approach to improve efficiency, transparency, and public participation in city administration through various digital initiatives. The development of this area is directed at integrating cultural preservation with the use of technology (Aditya, 2021). The Smart City concept emphasizes the use of information and communication technology to improve governance efficiency, public service quality, and community participation (Sari et al., 2020). The implementation of Smart City in Surabaya is realized through various digital programs and sustainable development policies that align with the principles of the Sustainable Development Goals (SDGs). The application of this concept opens up opportunities to integrate tourism development with a smarter and more sustainable city management system (Pratiwi, 2025).

Smart City implementation has been the focus of various previous studies. (Izzuddin, 2022) shows that Smart City is considered a good performance for a city because it is expected to have a positive impact on government and social life of the community in all sectors. Meanwhile, (Nooringsih, Kanindya and Susanti, 2020), studied the implementation of Smart City in the Old City area of Semarang and found that the six dimensions of Smart City have not been fully implemented. Furthermore, (Purnomowati, 2019), highlighted the concept of Smart City, if implemented properly, it can make Malang City a tourist destination. Research (Amalia & et al., 2021), stated that the implementation of Smart City in Surabaya has made many residents of Surabaya City technologically literate and created more transparent and accountable government services by facilitating the provision of services to the people of Surabaya City.

Various previous studies have shown that the implementation of the Smart City concept can positively contribute to governance, public services, and tourism development. However, several studies have also revealed that Smart City implementation in heritage tourism areas has not been fully implemented comprehensively. This is particularly evident when viewed based on the six main pillars of Smart City: Smart Governance, Smart Branding, Smart Economy, Smart Living, Smart Society, and Smart Environment. These six pillars should be integrated to support the sustainable management of heritage tourism areas that are adaptive to technological developments.

Based on these conditions, there is a research gap regarding the extent to which the Smart City concept has been implemented in the development of cultural heritage-based tourism areas. Therefore, this study aims to examine the development of Surabaya's Old Town Tourism from a Smart City perspective by analyzing the application of the six Smart City pillars in the development of heritage tourism areas. This analysis was conducted to determine the level of implementation and identify aspects that still need to be optimized, so that the development of the area is not only oriented towards cultural heritage preservation but also supports sustainable digital transformation. The research results are expected to provide evaluation material and recommendations for local governments in formulating policies for the development of sustainable and Smart City-based heritage tourism areas.

RESEARCH METHOD

This study uses a qualitative descriptive approach aimed at understanding and in-depth describing the development of Surabaya's Old Town Tourism from the perspective of the Smart City concept. This approach was chosen because the research focuses on the process, meaning, and implementation of heritage tourism development, thus requiring a comprehensive understanding of the phenomena occurring in the field. Qualitative methods allow researchers to obtain descriptive data in the form of written and spoken words from the subjects studied (Sugiyono, 2013).

The research was conducted in the Old Town Tourism area of Surabaya, which is administratively located in Krembangan District, Surabaya City. The location was selected based on the area's role as a heritage tourism area undergoing a process of revitalization and development. Primary data were collected through direct observation in the research area to observe the physical conditions, supporting facilities, tourism activities, and the use of technology in area management, and through in-depth interviews with informants, including area managers, local government officials, MSMEs, and the surrounding community. Meanwhile, secondary data were obtained from policy documents, official reports, scientific articles, online news, and other library sources relevant to tourism development and the Smart City concept.

Data analysis in this study was conducted using the Miles and Huberman model, which includes three main stages: data reduction, data presentation, and conclusion drawing/verification. Data reduction was performed to filter out important information that supports the research focus. Data presentation was carried out through descriptive narratives, interview quotes, tables, or charts to facilitate understanding. Furthermore, conclusions were drawn gradually based on patterns and findings emerging from the data processing (Ash-shiddiqi et al., 2025).

The data obtained was analyzed by linking field findings to the six Smart City pillars as an analytical framework for assessing the development of Surabaya's Old Town Tourism. Data validity was maintained through triangulation of sources and techniques, comparing the results of observations,

interviews, and documentation studies, ensuring the data obtained had a level of trustworthiness and validity that could be scientifically justified.

FINDINGS AND DISCUSSION

Development Of Old Town Tourism

Surabaya's Old Town is located in Krembangan District, north of Surabaya, and is a historic area that flourished during the Dutch East Indies colonial era. This area is characterized by colonial-style buildings and old urban planning patterns that can still be seen today. Surabaya's Old Town is divided into three main segments: Jalan Rajawali, which holds significant historical significance related to the Red Bridge Incident; Jalan Kembang Jepun, known as Chinatown; and Jalan KH. Mas Mansyur, which is synonymous with Arab settlements. These three segments form a unified heritage tourism area known as Surabaya's Old Town.

The research results show that the Old Town area of Surabaya has undergone a development process through a revitalization program implemented by the Surabaya City Government. This development is evident in improvements in the quality of the area's infrastructure, such as road repairs, pedestrian paths, lighting installations, and the renovation of historic building facades protected as cultural heritage. Furthermore, the area's accessibility has also improved through the provision of more comfortable pedestrian paths and connectivity to various modes of public transportation. This revitalization effort aims to revitalize the area's function as a heritage tourism destination while optimizing the use of cultural heritage buildings.

The development of the Old Town area of Surabaya as a cultural tourism destination was strengthened by the implementation of soft launch and grand launch activities in mid-2024. The results of interviews with the Surabaya City Department of Culture, Youth, Sports and Tourism (DISBUDPORAPAR) showed that the revitalization program of the Old Town area of Surabaya began to run more intensively since 2019 and focused on strengthening the area's identity as a heritage tourism destination. Quoted from (Pos, 2024) Hidayat Syah as the Head of the Surabaya City DISBUDPORAPAR hopes that the existence of the Old Town tourism in Surabaya will increase economic growth in the city of Surabaya. Therefore, he hopes that in the future the Surabaya City DISBUDPORAPAR will hold more activities so that tourist visits in the city of Surabaya will continue to increase. The development of this area is expected to encourage increased tourist visits and provide economic impacts for the community and business actors around the tourist area.

The development of Surabaya's Old Town tourism demonstrates the local government's efforts to manage heritage tourism areas in a planned and sustainable manner. The revitalization program focuses not only on physical improvements to the area but also on strengthening its identity as a history- and culture-based tourist destination. This approach aligns with the concept of urban tourism development, which emphasizes the preservation of local cultural values as a primary tourist attraction.

Furthermore, infrastructure development and increased accessibility demonstrate a shift in management toward Smart City principles, particularly in creating a more organized, comfortable, and accessible tourist area. The designation of Surabaya's Old Town as a leading cultural and technology-based tourist destination serves as a crucial foundation for implementing the six Smart City pillars in the development of heritage tourism areas.

Implementation Of The Six Pillars Of Smart City In The Development Of Tourism In Surabaya's Old Town

In this study, the Smart City concept is used as an analytical framework to review the development of Surabaya's Old Town Tourism. The Smart City approach is understood not only as the utilization of information technology, but also as an integrated area management effort encompassing governance, economics, promotion, the environment, and community social life. In the context of heritage tourism development, the application of the Smart City concept is relevant to support the provision of tourism information, improve service quality, strengthen local economic activity, and ensure the sustainability of the area's environment.

Based on this framework, the analysis of the development of Surabaya's Old Town Tourism in this study focuses on the six pillars of Smart City: Smart Governance, Smart Branding, Smart Economy, Smart Living, Smart Society, and Smart Environment. These six pillars are used to assess the extent to which regional development is not only oriented towards physical improvements, but also encompasses regional governance, economic activity, tourism promotion, environmental comfort, and community involvement in supporting the sustainability of heritage tourism destinations.

Smart Governance

Smart government serves as the foundation for smart city implementation, embracing three primary government functions: public policy, bureaucratic governance, and public services. The implementation of smart governance in the development of Surabaya's Old Town Tourism is reflected in the Surabaya City Government's active role in planning and managing heritage tourism areas. The area's revitalization program supports public policy aimed at optimizing the Old Town's role as a leading tourist destination. Management of the area is carried out through coordination across regional government agencies (OPDs), particularly those related to the tourism, culture, and infrastructure sectors.

In terms of technology utilization, the government provides various public service applications, such as "ADINDA"(One Data, Information and Administration Application for the Department of Culture, Youth and Sports and Tourism of Surabaya City)which functions to manage tourism data, publish destination information, and support administration related to the tourism sector in Surabaya through the digital platform, "SSW"(Surabaya Single Window)Public space use licensing services and the "WARGAKU" application as a complaint and service platform for Surabaya city residents, which functions

as a means of service and communication between the government and the community.

In the context of tourism, providing QR codes at several points in the area makes it easier for tourists to access information related to the history and function of cultural heritage buildings. However, research shows that the management system of the Old Town Surabaya tourist area is not yet fully integrated into a single platform, so optimizing the implementation of Smart Governance is still needed.

Table : 1 Implementation of Smart Governance in the Development of Surabaya Old Town Tourism

ASPECT	FIELD FINDINGS	SMARTCITY INDICATIONS
Management policy	Revitalization of the area through the Surabaya City Government program	Public policy support
Digital services	Utilization of the ADINDA, SSW, and WARGAKU applications	Digitalization of public services
Tourist information	Provision of QR codes at several points in the area	Access to public information
Governance	Area management involves cross-OPD	Collaborative governance
Challenge	The management system is not yet integrated	The need to optimize Smart Governance

Smart Branding

In efforts to develop and expand the tourism sector, branding strategies are crucial for attracting tourists. Smart branding is implemented by introducing the distinctive characteristics, uniqueness, and advantages of a tourist area through various promotional strategies and techniques packaged in an innovative, creative, accurate, and engaging manner, thereby increasing the appeal and interest of tourists. The application of Smart Branding in the development of Surabaya's Old Town Tourism is demonstrated through digital promotion efforts and the holding of various heritage-themed activities. The Surabaya City Government utilizes official social media platforms through Instagram accounts such as @kotalamasurabaya And @disbudporparsby, then through the digital tourism platform website <https://tourism.surabaya.go.id> / (Surabaya Tourism) "To build the region's image as a historical and cultural tourism destination," said Ms. Annisa, Head of the Surabaya City Culture, Sports, and Tourism Office. "The promotional strategy implemented by the Culture, Youth, and Tourism Office (Disbudporapar) includes introducing the tourism sector through social media, events, collaboration with travel agents, collaboration with hotels to place destination brochures and tourist maps in hotel lobbies, and showing promotional videos of tourist destinations." (Interview Results, December 8, 2025). The promotional content

displayed highlights the character of cultural heritage buildings, MSME activities, and the post-revitalization atmosphere of the area.

In addition to digital promotion, thematic activities and cultural events also play a role in strengthening the identity of the Surabaya Old Town tourist area. Collaboration with creative communities and tourism actors expands the reach of regional promotions and strengthens the image of the Old Town as a widely recognized heritage tourism destination. The results of the study indicate that regional branding activities have been actively carried out through various events and promotional activities, which have continuously contributed to strengthening the destination's image. Thus, the implementation of Smart Branding in the development of Surabaya Old Town Tourism can be said to be running well and showing significant results. The area's identity as a heritage tourism destination has been firmly established, so that future development efforts are more directed at maintaining the consistency and continuity of the established branding strategy to support the competitiveness of the tourism area. This success is a crucial capital in supporting the competitiveness of the tourism area, so that future efforts are more directed at maintaining the consistency and continuity of the established branding strategy.

Table : 2 Implementation of Smart Branding in the Development of Surabaya Old Town Tourism

ASPECT	FIELD FINDINGS	SMARTCITY INDICATIONS
Digital promotional media	Utilization of official social media and digital tourism platforms by the Surabaya City Government	Digital-based destination branding
Thematic activities	Regular holding of cultural events and activities	Strengthening the image of the region
Collaboration	Involvement of creative communities and tourism actors in regional promotion	Collaborative promotion
The impact of branding	The image of Surabaya's Old City is widely known as a heritage tourism destination.	Destination competitiveness
Development direction	Focus on consistency and continuity of branding strategy	Smart Branding Sustainability

Smart Economy

A Smart Economy can be an indicator of the development of an area that is a tourist destination or has a tourist attraction. The application of the Smart Economy in the development of Surabaya's Old Town Tourism is reflected in the increase in local economic activity following the revitalization of the area, such as the emergence of various types of MSMEs; vintage costume rental services, photography services, jeep tours, tour wagons, and several cafes. The presence of MSMEs operating in the culinary, souvenir, and tourism services sectors demonstrates the utilization of the economic potential based on heritage

tourism. These activities have a positive impact on increasing the income of the community around the tourist area.

Some businesses have already embraced digital technology, such as the QRIS cashless payment system and Digital Wallet. In an interview with a visitor, Diva stated, "Visit to Surabaya's Old Town area is generally used for taking photos, strolling, and enjoying culinary delights with friends. Furthermore, food and drink prices in this area are relatively affordable and support a cashless payment system, making it convenient for visitors even if they don't have cash." Furthermore, promotions through social media channels like Instagram, TikTok, and Marketplace have also been implemented. Putri, an employee at the Siropen Syrup Factory Shop, informed us. "Siropen Syrup products are not only available for offline purchase in the old city area, but can also be purchased online through marketplaces such as TikTok Shop and Shopee, thus enabling delivery outside the city."

However, the digital literacy level of MSMEs in Surabaya's Old Town is still uneven, so the implementation of the Smart Economy still requires mentoring and capacity building so that the economic benefits can be felt more widely and sustainably.

Table : 3 Implementation of Smart Economy in the Development of Surabaya Old Town Tourism

ASPECT	FIELD FINDINGS	SMARTCITY INDICATIONS
Economic activity	Growth of MSMEs in tourist areas	Strengthening the local economy
Type of business	Culinary, souvenirs, and tourism services	Economic diversification
Transaction system	Use of non-cash payments	Digitalization of the economy
Business promotion	Utilization of digital media by MSMEs	Economic innovation
Challenge	Digital literacy among MSMEs is not yet evenly distributed	Optimizing the Smart Economy

Smart Living

Smart Living in tourism development is related to efforts to improve the quality of life, comfort, and security of the area, both for tourists and local communities. This pillar emphasizes the provision of a livable, safe environment that supports sustainable tourism activities. The implementation of Smart Living in the Old Town area of Surabaya is demonstrated through improvements in the quality of infrastructure and public facilities that support tourist comfort. The arrangement of pedestrian paths, area lighting, public open spaces, and other supporting facilities contribute to creating an orderly, safe, and comfortable tourist environment. The Old Town Tourism Area of Surabaya has been equipped with official parking areas at Jembatan Merah Plaza (JMP)

and Kasuari Terminal, public prayer rooms, public toilets, seating facilities, street lighting, playgrounds, trash cans, and historical information boards.

In terms of accessibility, this area is supported by the availability of public transportation facilities such as the Wira-Wiri Feeder bus stop, Suroboyo Bus, public transportation, and traditional transportation modes such as becak. Furthermore, easy access for all visitors, including people with disabilities, the elderly, and children, is realized through the provision of disability-friendly facilities, adequate pedestrian paths, and crossing lights that support safety and comfort. In addition to public facilities, the Old Town area of Surabaya is also supported by the presence of accommodation facilities, such as the Arcadia Surabaya Hotel by Horison, which is integrated with the tourist area. The presence of these accommodation facilities strengthens the dimension Smart Living. This is achieved through the provision of temporary housing that enhances comfort and enhances the tourist experience. Overall, this contributes to improving the quality of the tourism experience in heritage tourism areas.

Security is also a crucial aspect of Smart Living implementation, with security posts and area surveillance being provided. Surabaya's Old Town area is equipped with CCTV cameras integrated with the Surabaya City Government Command Center and managed by the Department of Transportation and the Department of Communication and Information Technology. However, the presence of security posts and officers on duty has not been able to fully suppress the potential for crime in the area. Several criminal incidents, such as nighttime muggings and theft of public facilities, are still reported, potentially reducing visitors' sense of security and comfort. This is reinforced by the statement of a local resident, Mr. Heri, who said: "This area is still often the target of crime, such as nighttime snatchings and theft of a number of public facilities by irresponsible individuals." The research results show that there are still challenges in maintaining the comfort of the area at certain times. This highlights the need to strengthen security and area management to support a sustainable quality of life and tourism experience.

Table : 4 Implementation of Smart Living in the Development of Surabaya Old Town Tourism

ASPECT	FIELD FINDINGS	SMARTCITY INDICATIONS
Public facilities	There is an official parking area, prayer room, public toilets, seating, playground, lighting, trash cans, and historical information boards.	Improving the quality of public facilities
Area infrastructure	Arrangement of pedestrian paths, public open spaces, and area lighting	Orderly and comfortable tourist environment
Accessibility	Supported by public transportation (Suroboyo Bus, Feeder Wira-Wiri, public transportation) and traditional modes	Ease of tourist mobility
Inclusivity	Provision of facilities friendly to the disabled, elderly and children	Inclusive tourism environment

Supporting facilities	The existence of accommodation (Hotel Arcadia Surabaya by Horison) which is integrated with the area	Comfort of travel experience
Technology-based security	CCTV integrated with the Surabaya City Government Command Center	Technology-based area surveillance
Challenge	Crime still occurs at certain times there is no public reading room yet	The need to strengthen Smart Living

Smart Society

Smart Society in tourism development emphasizes the quality of human resources, community participation, and social interaction that support the sustainability of tourist destinations. The application of Smart Society in the development of Surabaya's Old Town Tourism is evident in the involvement of local communities and heritage communities in supporting various tourism activities in the area.

Community participation was evident from the early stages of the area's development, marked by village-level deliberations, community involvement in the development of the Building and Environmental Planning Plan (RTBL), and residents' role in maintaining and preserving the area. The level of community participation in this initial phase was relatively high. However, this involvement tended to decline over time and was not sustainable. Some residents were involved as informal small traders and tourism service providers, but these activities were still temporary and not supported by long-term empowerment schemes.

Public participation is also reflected in the involvement of residents and communities in cultural activities, regional events, and the creative economic activities that develop around tourist areas. This is reinforced by an interview with Mr. Said, a community leader, who stated that "Community or local citizen involvement was very high at the time of the area's inauguration, but then declined due to the lack of follow-up programs, such as regular training, ongoing citizen forums, and social incentives." This condition indicates that the institutional structure is still weak in maintaining the continuity of community social participation.

Nevertheless, the social inclusivity aspect of the development of Surabaya's Old Town tourism area has shown relatively positive progress. The Department of Culture, Youth, Sports, and Tourism has begun to prioritize vulnerable groups, such as women and people with disabilities, in managing the tourism area. This was conveyed by the manager of Surabaya's Old Town area, Mr. Agus, who stated that "We are committed to continuing to open up participation spaces for vulnerable groups, including women and people with disabilities, so they can actively contribute to various tourism activities and services." This commitment is reflected in the involvement of women as tour guides and business actors, as well as the participation of people with

disabilities in training activities and the provision of disability-friendly facilities.

The research findings indicate that overall community participation has not been consistent and is still limited to specific activities. Therefore, strengthening sustainable community empowerment programs and establishing more robust social institutions is necessary to ensure the community's role in managing and developing the Old Town Surabaya tourist area optimally and sustainably.

Table : 5 Implementation of Smart Society in the Development of Surabaya Old Town Tourism

ASPECT	FIELD FINDINGS	SMARTCITY INDICATIONS
Early community participation	Resident involvement in village deliberations and RTBL preparation	Public participation
The role of the community	Heritage community involvement in regional activities	Social capital
Local economic activities	Residents are involved as small traders and tourism service providers.	Community economic empowerment
Inclusivity	Provision of facilities friendly to the disabled, elderly and children	Inclusive tourism environment
Social inclusivity	Involvement of women and people with disabilities	Comfort of travel experience
Technology-based security	CCTV integrated with the Surabaya City Government Command Center	Equality and inclusion
Challenge	Community participation has decreased due to the lack of a community forum and ongoing follow-up programs.	Strengthening social institutions and community capacity

Smart Environment

Smart Environment in tourism development, this aspect emphasizes sustainable, tourist-friendly, and ecologically sound environmental management, so that tourism activities do not damage the environment and are able to maintain the quality of the destination in the long term. The implementation of Smart Environment in the development of Surabaya's Old Town Tourism is reflected in efforts to preserve cultural heritage buildings and environmental management of the area. The area that previously tended to be slum has now experienced a significant improvement in environmental quality after revitalization and developed into a more organized, clean area, and has the appeal as a heritage-based tourist destination. The revitalization was carried out while still considering the historical value and visual character of the area so that the sustainability of the heritage tourism destination can be maintained.

The management of area cleanliness and the utilization of public spaces also support environmental quality in Surabaya's Old Town area. Cleanliness

management is carried out in a structured manner by the Surabaya City Government through the Environmental Agency (DLH), which provides a Temporary Waste Disposal Site (TPS) as a waste collection location before being transported to the Benowo Final Processing Site (TPA). In addition, cleaning staff are deployed routinely every day to maintain the area's cleanliness. The waste bank program has also begun to be promoted as part of a community-based environmental management policy, although its implementation is not yet evenly distributed across all tourist areas.

In the context of heritage areas such as Surabaya's Old Town, the implementation of Smart Environment is not only limited to aspects of cleanliness and spatial planning, but also includes the protection of cultural heritage buildings, improving the quality of public open spaces, controlling visual and noise pollution, and regulating activities and visitor numbers to avoid excessive environmental pressure (overtourism). Vegetation arrangement is carried out selectively so as not to cover the facades of cultural heritage buildings, thus maintaining the visual value and architectural character of the area. The available public open spaces support various tourist activities, such as walking tours, photography activities, and visitor social interactions.

However, the limited shade and green space present a major environmental challenge in the area. The lack of shade vegetation and weather protection facilities reduces visitor comfort, particularly during hot days and during the rainy season. This situation demonstrates the need for strengthening the Smart Environment aspect, particularly through the addition of adaptive shade elements that are friendly to the heritage character of the area, to optimize environmental comfort and the sustainable development of Surabaya's Old Town Tourism.

Table : 6 Implementation of Smart Environment in the Development of Surabaya Old Town Tourism

ASPECT	FIELD FINDINGS	SMARTCITY INDICATIONS
Building preservation	Revitalization of cultural heritage buildings by paying attention to historical value and visual character	Sustainability of heritage areas
Environmental planning	Improving the environmental quality of the post-revitalization area	Well-organized tourist environment
Cleanliness management	Provision of TPS, transportation of waste to Benowo TPA, and regular cleaning staff	Urban environmental management
Community participation	The development of the waste bank program, although not yet evenly distributed	Environmental awareness and participation
Public open space	Utilization of public spaces for tourism activities	Quality of public space

Tourism impact control	Vegetation management and activity regulation so as not to damage the area	Sustainable tourism
Challenge	Limited green space and shading elements	The need to strengthen the Smart Environment

The application of the Smart City concept to the development of Surabaya's Old Town tourist area demonstrates efforts to transform the heritage area into a more modern, adaptive, and technology-driven tourist destination. Field findings demonstrate that the six pillars of a Smart City do not operate in isolation but are interconnected, forming an integrated tourism management system.

Within the Smart Governance pillar, key strengths lie in the availability of digital complaint channels and the use of QR codes and websites as tourism information channels. This reflects the Surabaya City Government's commitment to increasing transparency, accountability, and accessibility of information for the public and tourists. The digitalization of public services is a crucial foundation for integrated tourism management and supports the effectiveness of other Smart City pillars.

However, this integrated governance has not been fully balanced by optimization of the Smart Living pillar. Despite the availability of security facilities such as security posts and on-duty officers, crime incidents that still occur at certain times and locations have the potential to impact visitors' sense of safety and comfort. This situation indicates that the quality of life and tourism experience are not yet fully guaranteed, necessitating the continuous strengthening of security management in the area.

On the other hand, the Smart Economy and Smart Branding pillars show relatively positive developments and are mutually reinforcing. The growth of MSMEs and local economic activity goes hand in hand with the region's digital promotion and the implementation of various heritage-based activities. The synergy between these two pillars contributes to the region's increasing appeal as a heritage tourism destination and stimulates local economic activity.

However, the sustainability of the area's development still faces challenges in the Smart Society dimension. The high level of community participation in the early stages of development has not been accompanied by structured and sustainable empowerment mechanisms. Community involvement in maintaining security, public facilities, and area activities remains situational and has not been consistently institutionalized. This situation highlights the need to strengthen the role of the community as an integral part of the tourism area management system.

In the context of Smart Environment, the general cleanliness of the area has been well managed through a waste management system and regular public space planning. However, the limited availability of shady vegetation

and green spaces remains a challenge that impacts visitor comfort, particularly during the day. This indicates that environmental aspects need to be continuously strengthened to support a quality tourism experience sustainably. The six pillars of Smart City show varying levels of implementation, with relatively strong achievements in branding and area planning, while challenges remain in management integration, sustainable community participation, and environmental comfort.

CONCLUSION

This study aims to analyze the development of Surabaya's Old Town Tourism from the perspective of the Smart City concept through six main pillars, namely Smart Governance, Smart Branding, Smart Economy, Smart Living, Smart Society, and Smart Environment. Based on the research results and discussion, it can be concluded that the development of Surabaya's Old Town Tourism has led to the implementation of the Smart City concept, although the level of implementation shows variations in each pillar.

In general, the implementation of the six Smart City pillars demonstrates that the transformation of Surabaya's Old Town tourist area focuses not only on physical improvements, but also encompasses aspects of governance, technology utilization, local economic empowerment, environmental enhancement, and community involvement in heritage tourism management. These six pillars are interconnected and form an integrated tourism management system.

The implementation of Smart Governance is reflected in the Surabaya City Government's policy support for the area revitalization program, the use of digital services such as the ADINDA, SSW, and WARGAKU applications, and the provision of public information through digital media and QR codes at several points in the area. Coordination across Regional Apparatus Organizations (OPD) demonstrates collaborative governance efforts. However, the area management system is not yet fully integrated, so the effectiveness of area services and management still needs to be optimized.

The Smart Branding pillar is the most prominent aspect in the development of Surabaya's Old Town tourism. The Surabaya City Government actively utilizes social media and digital tourism platforms, and organizes various cultural events and heritage-based thematic activities. Collaboration with creative communities and tourism stakeholders has strengthened the area's image as a widely recognized heritage tourism destination. Research shows that the area's branding activities have been active and sustainable, thus firmly establishing the identity of Surabaya's Old Town as a heritage tourism destination.

The implementation of the Smart Economy is demonstrated through the growth of local economic activity, particularly among MSMEs, informal traders, and the creative economy sector around tourist areas. Revitalization of these areas has had a positive impact on increasing local economic turnover. However, strengthening the Smart Economy still faces challenges, particularly

related to limited sustainable business development, access to capital, and the integration of MSMEs into the digital tourism ecosystem.

Under the Smart Living pillar, improvements in infrastructure and public facilities have contributed to the comfort and tourist experience for visitors. Improvements in pedestrian paths, area lighting, public open spaces, parking facilities, and public transportation support demonstrate efforts to improve the quality of life in tourist areas. However, security remains suboptimal, as potential crime remains at certain times and locations. Therefore, ongoing strengthening of security management is necessary.

The Smart Society pillar is characterized by the involvement of local communities and heritage communities in the area's development process, particularly in the early stages of revitalization and cultural activities. However, community participation has not been consistent and sustainable due to weak social institutions and limited long-term empowerment programs. This situation indicates that the Smart Society aspect still needs strengthening to optimize the community's role in managing tourism areas.

The implementation of a Smart Environment is reflected in the Surabaya City Government's coordinated efforts to preserve cultural heritage buildings, manage the area's environment, and manage cleanliness. The revitalization of the area has successfully improved the environmental quality and visual appeal of the heritage area. However, limited green space and shade remain challenges that impact visitor comfort, necessitating continued strengthening of environmental aspects to support the sustainability of the tourism area.

Overall, the research results indicate that the development of Surabaya's Old Town Tourism has led to the implementation of the Smart City concept with relatively strong achievements in the Smart Branding pillar and initial support for Smart Governance and Smart Economy. Meanwhile, optimization of Smart Living, Smart Society, and Smart Environment is still needed so that the development of the tourism area can run in a more balanced, integrated, and sustainable manner. Therefore, the Surabaya City Government is advised to strengthen the integration of the area management system through the development of an integrated digital platform, improve the security of the tourism area, and expand community and MSME empowerment programs so that local social and economic participation can run consistently. In addition, strengthening environmental aspects by adding green space elements and shade that are adaptive to the character of the heritage area needs to be a concern to improve visitor comfort. These efforts are expected to encourage the development of Surabaya's Old Town Tourism as a competitive, sustainable, and inclusive heritage tourism destination. The development of Surabaya's Old Town Tourism based on Smart City needs to be supported by a more integrated, participatory, and long-term oriented management strategy to be able to increase the competitiveness of the heritage tourism area while providing social, economic, and environmental benefits to the community.

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