The challenges of urban tourism, Liveable city, and urban environment in Bangkok

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        ***Abstract*---**A liveable city is concerned with urban development and the living environment of residents. Bangkok could be considered one of the best destination cities in the world, with low prices, excellent service, and diverse tourist attractions. Although Bangkok is one of the best cities for tourism, the best city for tourism does not refer to a liveable city for the residents. This present study aimed to investigate the relationships between urban tourism, urban development, and liveable city in particular areas of Bangkok using data from the Traffy Fondue application. The study employs mixed methods, comprising questionnaires for foreign tourists in both English and Chinese, interviewing stakeholders, and searching for online open data from popular travel websites for popularity and satisfaction. For a liveable city for the residents, we employed the set of open source data from the Traffy Fondue application operated by the Bangkok Metropolitan Authority (BMA). The results demonstrated that an urban

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environment for tourists did not refer to a liveable city for the residents. Furthermore, additional elements – mobility facilities for tourists and residents were the most considerable challenges to urban environment improvement for both urban tourism and a liveable city in Bangkok. In conclusion, the urban environment in Bangkok was improved for tourists and partial citizens. Creating good walkability is the top priority for building a liveable city.

Introduction

In Thailand, the tourism industry is one of the crucial tools for economic growth and opportunities for cities. The Mastercard Global Destination Cities Index (GDCI) placed Bangkok first in 2019. Bangkok topped the GDCI for international overnight visitors for the fourth consecutive year. Urban tourism is embedded with two concepts: "tourism" and "city". According to Ashworth and Page, cities have characteristics that contribute to tourism and leisure, which leads to city tours or vice versa, and urban tourism results in city development that responds to tourism (Ashworth & Page, 2011). However, urban tourism has received a disproportionately small amount of attention from tourism scholars or the cities (Ashworth & Page, 2011). Notably, there is no research to explore the relationship between urban tourism, urban environment, and liveable city for the residents in Bangkoks as one of the world's major tourist destinations. The significant factors that persuaded foreign tourists to visit Bangkok could be considered a plurality of primary elements. Firstly, the location of Bangkok is an important air transportation hub in Asia (Manakitsomboon, 2021).

Secondly, compared to other major cities worldwide, the economic cost of living is a chief attraction for travelers (Aung & Hichitake, 2015). Lastly, the diversity of available activities and tourist attractions ranges from the luxurious to the mass market (Tourism & Sports, 2017). However, this paper argued that there was a crucial gap between one of the world-class destinations for urban tourism, a liveable city for the residents, as well as the competitiveness of the city. Webster and Muller argue that the competitiveness of cities refers to the ability to develop and market an array of goods that are good value for money, not because of the cheapest living cost compared to comparable products in other cities (Webster & Muller, 2000). Bangkok was the first-rated tourism city in the Global Destination City Index by the Mastercard rankings of world tourism cities and Numbeo, a crowd-sourced cost of living database, and Mercer (Morrison & Maxim, 2021). The city, however, encountered traffic congestion and air pollution (Yuda, 2020). The city infrastructure is one of the critical factors of competitiveness. According to the Economist Intelligence Unit (EIU), Bangkok was ranked 98th out of 140 cities on the Global Liveability Index, with a 66 out of 100 in 2019. A country with 60 to 70 had negative factors (Unit, 2011). Even though Bangkok was the most visited city in the world, it was not a city with an excellent urban environment and a liveable city. These became the difficulties and challenges of urban development for tourists and the residents that Bangkok was facing.

The concept of a "liveable city" has been concerned with urban development as well as the living environment of residents. A liveable city is based on the principle of sustainability; the two concepts are often seen as two sides of the same coin. A liveable city is related to goal 11, making cities inclusive, safe, resilient, and sustainable (United Nations, 2022). Mostly, the studies about liveable cities have considered the criteria and evaluation indexes such as spatial distribution characteristics, factors affecting liveability, and residents on different scales (Harris et al., 2014). Recently, an interesting tool from the Bangkok Metropolitan Administration (BMA) for urban environment improvement has been achieved to achieve a liveable city in Bangkok. Traffy Fondue application has been employed to submit issues and complaints about the urban environment and public services in the Thai language to all 50 districts of BMA offices (Figure 1). Launching Traffy Fondue in 2022 was a good start in Bangkok for the residents and visitors since BMA could respond to those urban environmental issues more effectively in a short time frame. Additionally, the National Health Security Office (NHSO) considered that Traffy Fondue from BMA could bridge the health service gap in Bangkok. This could be assumed that this application was the city tool to bridge the gaps in urban environment improvement and health problems for the residents and tourists in future development. This study aimed to investigate the relationships between urban tourism, urban development, and liveable city in selected areas of Bangkok and to discuss the challenges of urban tourism, liveable city, and the urban environment in Bangkok.
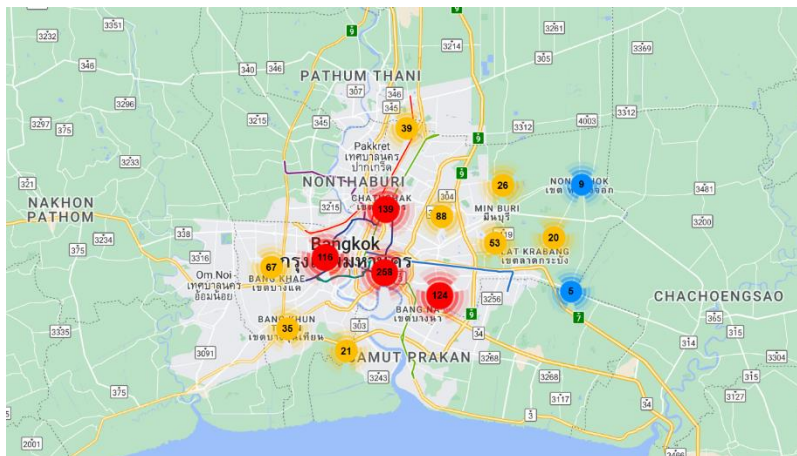

Figure 1. Overall issues in Bangkok from Traffy Fondue

Materials and Methods

Study design

This research adopted both qualitative and quantitative methods for primary and secondary data. It thus employed an online survey, an interview, and observation. Secondary data consisted of a literature review of planning, policy, and related statistics from various sources to understand the problems, potential, and approaches to the urban environment, urban tourism, and liveable cities. The data collection methods were in-depth interviews, observations, accessible online

databases, and online database surveying. Open-source data were used to understand the tourists, combined with mapping analysis to comprehend the tourist attractions, the accommodations, the locations, and the satisfaction rating information from online travel websites, Tripadvisor, and Airbnb for both quantitative and qualitative data.

The Tripadvisor database provides information on the main tourist attractions, restaurants, accommodations, and the secondary elements of urban tourism by gathering the tourist experiences with ratings for both popularity and satisfaction. During the COVID-19 pandemic in 2020, online surveying with questionnaires was employed by asking English-speaking tourists via the Google Form platform and Chinese tourists using Chinese Mandarin via wjx.cn., an online surveying platform in China. According to the number of online participants, this research employed the sizing samples using Taro Yamane's formula at a 95% confidence level using a 5% randomization error (Yamane, 1967). The number of respondents was 400 people.

City mobility, one livable city indicator, is a city's lifeline. People need to be able to move around their city for nearly everything they do: for their commute, to get to the hospital, to go shopping, to reach school or the sports club, or for a trip to the theatre. Mobility is a crucial prerequisite for productive business, commerce, and tourism for creativity and leisure, education and health – for the individual and the community. Cities only become truly vibrant through movement (KfW Development Bank, 2022). Hence, this study focuses on city mobility as one of the crucial issues of a liveable city.
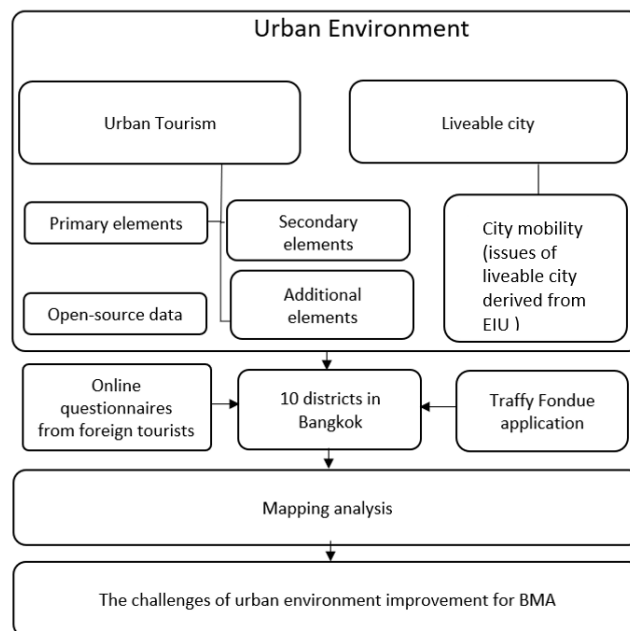

Figure 2. Conceptual framework of the study

Sampling and randomization schemes

This research employed a purposive sampling method by submitting questionnaires to various online media. For English-speaking tourists, the researcher used Google Forms. For Chinese tourists, the researcher used an online platform, WeChat, a unique online platform widely used in China. The questionnaires were electronically distributed via Winx, a platform for Chinese (mandarin speaking) tourists. This study was a descriptive analysis by investigating both the qualitative and quantitative analysis based on the framework of 3 main elements of urban tourism: primary, secondary, and additional elements from the online survey, the observation, and in-depth interviews with the related parties.

This study verified the data collection accuracy by triangulating the views of understanding from the questionnaire, the interview, and the observation. For the quantitative research, the number of samples from the online questionnaire was 198 respondents via the wjx.cn platform. They were Chinese tourists using Chinese Mandarin aged 15 years or older. For the foreign tourists who can speak English, the online platform, Google Form, was employed with 202 respondents to question traveling experiences in Bangkok. In this study, there were ten selected districts based on tourist popularity, including Rattanakosin, Khaosan, Bang Lamphu, around the Chao Phraya River, Yaowarat area, Sukhumvit area, Silom area, Siam area, Phaya Thai area, Ari area, Pratunam area, near Suvarnabhumi Airport, and Don Mueang Airport. Traffy fondue application was employed to investigate the data set to comprehend the residents' conditions and relations of liveable from the residents to examine the results from the tourists in these districts.

Conceptual framework

The EIU defines liveability as one of the aspects that could contribute to a high quality of living (Unit, 2011). The Governor, Chatchard Sitthiphan, of Bangkok adopted The Global Liveability Index from the EIU based on a range of criteria, including the availability of green space, infrastructure, crime rates, political stability, and health care. The Global Liveability Index 2021 illustrated that Bangkok was ranked 98th, with an overall rating of 66 out of 100. According to the EIU, a rating of between 60 and 70 means a country presented negative factors that impacted day-to-day living. This told the urban environment in Bangkok was not suitable for the residents. This paper formulated a study framework from the interconnectivity of urban tourism elements, urban environment, and liveability, as illustrated in Figure 2.

Results

For the relation between urban tourism elements and urban environments, this study employed questionnaires for the tourists' satisfaction. For the relationship between the urban environment and liveable cities, this study investigated the data from the Traffy Fondue application, illustrating the residents' reflections. Based on the analysis of the set of data, this study addresses two crucial challenges for a liveable city and urban environmental improvement, including

city mobility and further cooperation from various sectors after having evidence-based data from intelligent application in problem areas.

Table 1
Tourist accommodation chosen by Chinese and English-speaking tourists
(answering more than two choices)

Districts	Chinese speaking choosing more than 2 choices (percentage)	English speaking choosing more than 2 choices (percentage)
Old town areas (Rattanakosin island)	35%	37%
Along the Chao Phraya River	28%	28%
Sukhumvit	26%	27%
Silom	16%	17%
Siam	44%	40%
Phaya Thai	6%	8%
Air	6%	12%
Pratunam	7%	10%
Yaowarat	22%	16%
Airport zone (Don Mueng and Suvarnabhumi)	17%	18%
Others	8%	7%

Urban tourism elements and urban environment

Based on the online questionnaires, this study focused on two groups of tourists, Chinese tourists using Chinese Mandarin and foreign tourists using English (Table 1). Most Chinese and English-speaking tourists who responded to the survey were aged 25 to 39, with 56 percent and 42 percent, respectively. The Chinese and English-speaking tourists, ages 18 to 24, accounted for 40% and 37% of the total, respectively. The questions include information, accommodation, visiting goals, and traveling satisfactions. For the information on urban tourism in Bangkok, the foreign tourists who can speak English prefer to access information via the Internet 86%. They know Bangkok information from relatives and friends as high as 45% and use the services of travel agents at 17%. Of Chinese tourists,72.73% prefer internet access, 52.58% know Bangkok from their relatives and friends, and use the services of travel agents, 27.27%. Therefore, online information was an essential tool for travel planning. This study investigated ten tourist districts divided into the old town zone, shopping and business zone, and airport zone.
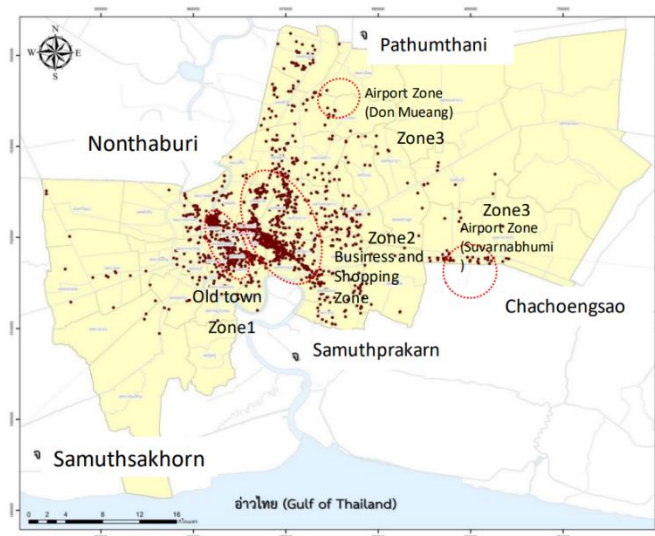
Figure 3. Tourist accommodations map in 3 zones

The primary elements and secondary elements of Bangkok urban tourism

Bangkok's urban tourism strengths were the variety of tourist attractions and the clustered areas between primary and secondary components. Most tourists prefer to stay around the old town zone, along the Chaopraya River, and business and shopping zones since there were full of diverse tourist attractions, accommodations, and support facilities for tourism (Figure 3).

Favorite things in Bangkok

This study categorized the favorite things into the following issues: the city landscape, quality of accommodation service, nightlife activities, amusement parks, urban environment, good weather, tranquility, personal safety, ease of shopping, and prices. Chinese tourists were fond of personal safety 83% and accommodation service quality 62%. For English-speaking foreign tourists, 61 % liked the bustling urban environment, 57% liked service quality, and 54 % liked the accommodation service quality, equal to sightseeing in the city landscape.

Trip satisfactions in Bangkok

This study divides the satisfaction issues into five areas: 1) the overall quality of the trip, 2) information and signs for traveling, 3) pathway, 4) ticket services, and 5) security and safety of travel (Table 2). Regarding the quality of travel, both Chinese and English-speaking tourists were dissatisfied with this issue, with 37 percent and 30 percent, respectively. Most Chinese and English-speaking tourists are satisfied with the information and signs, with 44 percent and 33 percent, respectively. For the pathway, most Chinese tourists were at a satisfactory level, as well as English-speaking tourists, accounting for 32% and 37%, respectively. For the ticket service, most Chinese tourists were at a satisfactory level, and English-speaking tourists were at 36%. Regarding the safety and security of

traveling, most Chinese and English-speaking tourists were pretty satisfied, with 38% and 44%, respectively.

Table 2
Tourist experience satisfaction for traveling in Bangkok

Issues of Satisfactions	Tourists' speaking language	5	4	3	2	1
Overall	Chinese	22%	32%	39%	6%	0%
	English	17%	37%	35%	7%	4%
Accessibility to tourist places	Chinese	4%	32%	30%	18%	5%
	English	12%	30%	37%	17%	4%
Clustered tourist attractions	Chinese	15%	28%	32%	24%	1%
	English	10%	27%	39%	13%	11%
Signages and information	Chinese	15%	29%	38%	17%	1%
	English	17%	30%	37%	12%	4%
Safety and Security	Chinese	20%	28%	42%	10%	0%
	English	10%	25%	46%	12%	7%
Value for money	Chinese	24%	33%	35%	7%	1%
	English	22%	37%	32%	7%	2%
Cleanliness	Chinese	24%	29%	33%	18%	5%
	English	15%	27%	35%	18%	5%
Street amenities (benches, lighting, litter, etc.)	Chinese	20%	26%	33%	18%	3%
	English	12%	21%	44%	17%	6%

Environmental issues

According to data from 152,838 issues in Traffy Fondue, overall complaints from residents in the top 5 districts, including Chatuchak, Wattana, Klongtei, Pathumwan, and Phra Nakhorn, respectively (Figure 4). This picture shows that Bangkokians' business and shopping zones were the most problematic areas. Compared between the issues of urban environment improvement from the residents and the issues of urban tourism from tourists, it illustrated some joint problems and different points between the residents in Bangkok and the visitors. The common problems of the tourists and the residents included road 18.8% and traffic 2.6, pavement 5.5%, lighting 5.1%, safe and security 4.7%, cleanliness 3.9%, and so on. The different issues were flooding, drainage systems, and stray dogs and cats in the city. The road condition is the most problem submission in the application since the residents use their vehicles for traveling to the town. Traffic problems were one of the communal issues of traffic congestion in Bangkok for both the residents and visitors. The tourists noted that it seriously impacts the time and plan of traveling.
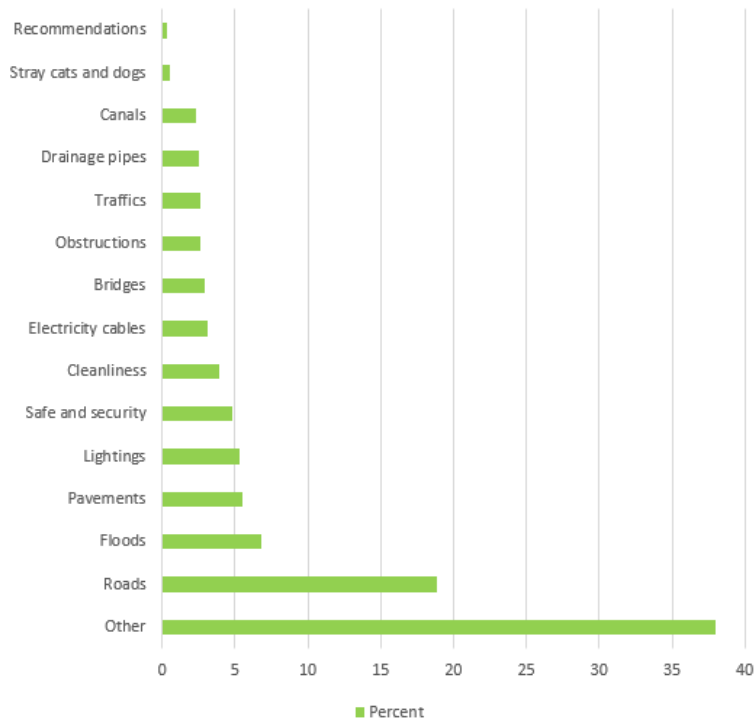
Figure 4. Issues of the urban environment in Bangkok retrieved from Traffy
Fondue

For the pavements, these problems could be seen mainly in the city center area along the line of public transport road and rails. Lighting problems could be found along the pavement of the main roads and rails, which could be seen in Chatuchak around the airport zone, Sukhumvit road, and suburban area. Safe and security problems were mainly found in Huai Kwang, Bang Khae, Chatuchak, and Klong Tei, which were not far from the tourist attraction and accommodation. The drainage system is one of the different issues between the tourists and the residents. This is the problem of Bangkokian for one of the causes of flooding, which could be mainly found in Chatuchak, Bang Khen, Prawes, Bang Kapi, and Bang Khun Thien, which were the resident areas. Flood problems could also be seriously found in the east and the west of Bangkok areas, such as Prawes, Bang Khen, Bang Khun Thien, Bang Kapi, Lat Krabang, Suan Luang, and Chatuchak. These were the residential and educational areas. The cleanliness issues are also the residents' problems, primarily found in the suburban areas of Bangkok from limited management.

To sum up, there were many issues based on the liveable cities approach, including roads, floods, pavements, lighting, cleanliness, infrastructures, traffic, and stray cats and dogs. Bangkokians and foreign tourists have the same pain points from roads and traffic. Pavement and lighting problems were communal issues for residents and tourists, which could be found around the same business, shopping, and public transit areas. Floods and drainage systems are seasonal problems during the rainy season, Thailand's low tourism season.

Therefore, these problems impact the conditions of roads and traffic for the residents rather than the tourists.

Discussion

The discussion is based on the objectives of this paper – to investigate areas of Bangkok and to discuss the challenges of 3 relations, including urban tourism, liveable city, and urban environment in Bangkok. In Bangkok's old town and business and shopping zones, there are clusters of tourist attractions with supportive facilities for tourism within walking distance, such as accommodations, restaurants, and entertainment activities (Sirisrisak, 2009). Secondary elements are also the strength of urban tourism in Bangkok. There are various support facilities and activities of tourism with a wide range of types and prices, such as hotels, hostels, and restaurants; however, infrastructure construction should be improved (Li, 2020). Significantly, many tourists are satisfied with essential goods, services, and food that are priced more affordable. For business and shopping areas, the Siam area is a meeting, shopping, and eating place that teenagers like to pay a visit to (McDowall, 2010). Pratunam Market is a wholesale and retail source of fashion products for Thais and foreigners living in Ratchaprasong, Siam, and Pratunam (McDuie-Ra & Robinson, 2017). Therefore, it is a shopping center that creates a wealth of experiences and meets the demands of diverse groups of people. Each district has its characteristics; they have mixed uses and represent a clustered area. Interestingly, the strength of urban tourism in Bangkok is the combinations and clusters of primary and secondary elements in many tourist places in mixed-use districts.

For many districts' pavement and urban environments, vibrant local lifestyles, vendors, and street foods could be glimpsed through lively walk paths (Cifci et al., 2021). For instance, primary elements are the tourist attractions, including arts, culture, architecture, and museums in old town areas such as Phra Nakhon and Samphanthawong district (King & Lertnapakun, 2019). The tourists could ride the tour buses or boats and walk around the old town areas, which are combined with architectural attractions such as temples and palaces, the network of ancient town landscapes, roads, canals, and captivating ways of life from accommodations, hotels, hostels, guest houses, restaurants, and various shopping centers. Generally, their trip durations are about 3 to 14 days. They have limited time for traveling; therefore, a comfortable journey and time planning are crucial issues for trip planning. Remarkably, the additional element was not only the tourist problem but also the resident problem. As mentioned, city mobility is not only one of the crucial indicators for a liveable city, but the results show that this issue is also the challenge of a liveable city for Bangkok. Road conditions and traffic congestion have reflected an ongoing increase in environmental concerns (King & Lertnapakun, 2019). The crisis of delicate particulate matter (PM 2.5) pollution is found in the exhaust fumes of motor vehicles as a byproduct of inefficient engine combustion. It does affect not only human health but also causes financial damage that leads to an economic issues. Increasing air pollution reduced the number of tourists in Chiang Mai and Bangkok (Namcome & Tansuchat, 2021). The reduction in tourists in April and May also caused economic opportunity losses accounting for 476.27 and 4,105.13

million baht, respectively. Accordingly, this issue was a crucial problem for urban environment improvement for urban tourism and liveable city. This present study addresses the relationship between urban tourism, urban environment, and a liveable city that areas with popular tourist attractions and social and cultural backgrounds are not related to an excellent urban environment for livability.

For urban environment improvement, the BMA is a critical leader in promoting urban tourism, urban liveability, and sustainability agenda in Bangkok (Alderton et al., 2019). Although Bangkok's 20-year Development Plan aims to achieve liveability across the city with many issues, one of the critical issues of urban environment improvement for the tourists and the residents is to enhance additional traveling elements to achieve liveability. One of the urban liveability aspects is to provide a sound public transport system with neighborhood walkability (Litman, 2003). The liveable city emphasized sustainable transportation to reduce noise and air pollution and encourage residents to walk (Lennard & Lennard, 2008). As discussed, while the tourists enjoy walking in urban areas, the residents encounter many problems in their daily life, both from overcrowded and pavement conditions. Accordingly, walkability and enhancing a walkable environment can reduce pollution and traffic problems in dense areas. Additionally, these improvements may help the citizens and tourists to appreciate the sense of place in cities.

Cities in Asia and the Pacific are at different development levels regarding absorption capacity to adopt technologies and digital solutions (Asian Development Bank, 2019). Based on the set of data from open-source data, this study notes that using innovative digital technologies requires building not only cities' technical capacity but also organizational capacities. Traffy Fondue is the intelligent platform for collaborative plans among tourist sectors, government, commercial enterprises, and residents for evidence-based decision-making in problem areas. Considering open-source data from geographic information systems, digital solutions for citizen services, and internet of things-based solutions, data on citizen and tourist services collected through mobile apps, these tools lead to co-design planning to manage the traffic planning, health issues, and public services. For instance, BMA can seek cooperation from local districts, stakeholders, and advocacy groups to reduce the density and pollution by employing congestion charges in dense population areas. This is also one of the challenges for BMA in engaging more stakeholders to improve the urban environment together.

Conclusion

Briefly, this paper addressed the urban environment's challenges in Bangkok, improving convenient city mobility for the tourists and the residents, including comprehensive services of additional elements, roads, and pavement. Hence, good walkability is the top priority for a liveable city. The liveable city can be improved using proven digital technologies to deliver more efficient and responsive services to residents. Promoting livable cities through an integrated approach to enhance city mobility and integrated planning from various sectors such as the tourism industry, advocacy groups, and other stakeholders are also further challenges after having evident based data from an intelligent application

submitted by the residents. This study cannot carry out the research during the COVID-19 pandemic. Therefore, the in-depth interview with tourist sectors and the governments were canceled. Interestingly, although the limitation obstructs this study, the research findings illustrate the opportunities for employing open-source data to understand matters, city mobility, and problems from tourists and residents. The suggestions for future research are to bridge the gaps of open-source data between the private and government sectors to achieve better urban environmental planning and liveable city through collaborative planning.

Conflict of Interest

The authors have no conflicts of interest to declare.

Acknowledgments

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