

A Conceptual Framework and Website Design for Promoting Cultural Tourism in Kalasin Province for Travelers Using Big Bikes

Boonyarich Wongpracha^a, Kittichai Kasemsarn^{a*}, Khemmapat Patcharawit^a,
Khae Mungkornwong^a and Apinanti Sumthumpruek^b

^a*School of Architecture, Art and Design, King Mongkut's Institute of Technology
Ladkrabang (KMITL), Bangkok, Thailand*

^b*Industrial Design, Faculty of Architecture, Chiang Mai University, Chiang Mai,
Thailand*

*Corresponding Author. Email: kittichai.ka@kmitl.ac.th

Received: April 27, 2024

Revised: August 15, 2024

Accepted: November 4, 2024

Abstract

Motorcycle tourism is considered a source of high-value tourists, as this group is willing to pay a premium for their unique experiences. This premium provides the benefit of increased income for the local economy. However, compared to mass tourism, there is a lack of information for motorcycle tourists that is specific to their lifestyle and needs. Moreover, there is no conceptual framework or official website about tourist information, accommodations, and facilities for motorcycle tourism in Thailand. Therefore, this study aims to propose a framework, and to create and evaluate a big bike cultural tourism website of Kalasin province. Three sub-studies with different methods were applied. First, four experts and 18 big bike tourists were interviewed to identify guidelines that would help to create a website. Next, the website, www.kalasin.city, was created from the users' needs. Finally, the website was evaluated for four main factors (user experience (UX), user interface (UI), content, and desirability), and the conceptual framework was proposed. The findings indicate that UX received an average mean score of 4.47 (satisfied); UI, 4.47 (satisfied); content, 4.48 (satisfied); and desirability, 4.54 (very satisfied)-meaning that big bike users are motivated to travel in Kalasin province.

Keywords: motorcycle tourism, website, design, cultural tourism, Kalasin, big bikes

Introduction

The World Tourism Organization (UNWTO, 2019) suggests that motorcycle tourists are considered to be high-value customers because they are willing to pay a premium for this unique experience. Moreover, they mostly travel in groups and are mainly drawn to rural areas, unseen landscapes, heritage, and cultural attractions rather than more popular and populated locations (Ramoa, Pires, and Anana, 2021). Sykes and Kelly (2016) concur that this is an advantage to small communities which can attract this market with minimal investments in infrastructure. Ensuring safe, clean accommodations and good road conditions requires much less investment than would be required for other kinds of tourism.

According to data from the Thai Transportation Statistics Group (2021), the number of motorcycles in Thailand is as high as 21,582,805, with 34,000 of them being "big bike" motorcycles of more than 250 cc. This study will examine and focus on big bike riders, not general motorcyclists. This is because big bike riders use motorcycles for leisure and tourism purposes, not for commuting (Cater, 2017). Reangvaranont (2019) maintains that Thai big bike riders are premium tourists, with incomes averaging around 30,000-50,000 baht/month. Similarly, Ramoa, Pires, and Anana (2021) point out that this group tends to spend more than \$100 per day while travelling.

Despite the importance of motorcycle tourism, studies in this area are limited. Most research about motorcycle tourism concerns the following: 1) safety and landscape planning (Frash and Blose, 2022; Iamtrakul and Chayphong, 2019); 2) interests and experiences (Colarič-Jakše and Ambrož, 2015); 3) motorcycle tourism motivation (Cater, 2017; Ramoa, Pires, and Anana, 2021; Sykes and Kelly, 2016); and 4) profiles of riders (Walker, 2010).

The province of Kalasin was chosen for this research because of its cultural legacy. Mueang Kalasin, or Kalasin city, the province's capital and a secondary city with unrealized tourism potential, has a variety of landscapes and cultural sites. Furthermore, this province offers a unique opportunity to show how a cultural tourism website can

successfully boost big bike tourism in secondary cities with its provincial development plan aimed at raising tourism quality and income.

However, until now, there has not been sufficient research, information about website design, or specific advertising to catch the attention of big bike tourists. To attract and assist them and their style of traveling, tourism organizations and design companies need to provide specific, focused, and appropriate information. The lifestyles and needs of big bikers are different from those of other tourists (Cater, 2017; Broughton and Walker (2016). Moreover, when these tourists plan a trip, they need a specific website, not a general tourism website. In Thailand, the main barrier to motorcycle tourists visiting cultural places is the lack of an official big bike website about tourist information, accommodations, and facilities (Reangvaranont, 2019).

Thus, there is a need for an official website and a proposed framework for website design that presents information specific to this group to attract them to visit heritage and cultural attractions, thereby benefitting local economies. This study aims to propose a conceptual framework for creating and evaluating a website for such a big bike tourism in Kalasin. This website could support cultural and heritage tourism that could contribute to the local economy of Kalasin province, which is comprised of “secondary cities” (cities that have fewer than 4 million tourists visiting each year and have hidden, lesser-known cultural attractions).

Literature Review

Cultural Tourism in Kalasin Province

Kalasin province has numerous cultural heritage places. It is promoted as one of the groups of secondary cities (or less-visited areas) that have been encouraged by government agencies to promote more cultural tourism. The Kalasin Provincial Development Plan (2023) defined the goal of raising the quality and income of tourism. The province consists of natural attractions near the Phu Phan mountain range and tourist attractions around Lampao dam. Kalasin is also famous for its dinosaur

museum, and new excavation sites continue to be discovered. However, cultural tourism is sometimes considered a boring experience, with old fashioned, out-of-date activities, especially by young tourists (Surapiyawong and Kasemsarn, 2024). Yet studies suggest that this group could become interested in cultural tourism through the following means: studying their behavior and offering tours that match their interests and marketing using the same technology that they use (Duong Thi Hien and Tran Duc Thanh, 2022; Kasemsarn, 2024).

Tourism on Two Wheels

Motorcycle tourism can be categorized as drive tourism, which means “growing numbers of people desire a free and independent travel experience” Cater (2017). Studies in Europe (Lee and Brahmasrene (2013) and Taiwan (Shih, 2006:1029) also point out that motorcycle tourism focuses mostly on rural areas worldwide, leading to growth in those economies. Moreover, it differs from other tourism in that it increases the likelihood of traveling in groups, and it offers a greater experience along the journey than tourism by car does (Walker, 2010). Broughton and Walker (2016) state that motorcycle tourists are adventure seekers and a unique type of tourist. Therefore, tourist companies need specific and appropriate information for this target group.

Designing Tourism Websites

Luna-Nevarez and Hyman (2012) have studied more than 262 tourism websites around the world and categorized them into three main groups: (1) “Highly attractive, avant-garde, aesthetics-oriented websites” – 94 websites (35.9 percent). This type presents a number of images and animation with little verbal information. (2) “Moderately commercial, simplistic, information-oriented websites” – 134 websites (51.0 percent). These are more information oriented and have fewer animated images and videos. (3) “Highly detailed, mostly commercial, transaction-oriented websites” – 34 websites (13.0 percent). These focus on advertising and transactional features.

User Experience (UX) and User Interface (UI) on Websites

UX, developed from user-centered designs, is about the users' overall emotions, experience, reactions and how they feel during an interaction (Gupta and Duggal, 2021; Konstantakis and Caridakis, 2020). The Interaction Design Foundation (2021) proposes the following seven UX factors that influence website user experience: 1) It has a purpose for users (useful); 2) Users can use it without problems (usable); 3) Users can find different parts of the website easily (findable); 4) The website is reliable (creditable); 5) It is attractive and creates a passion for users to visit (desirable); 6) It is easily accessible (accessible); 7) It creates value for users (valuable). Regarding UI, it aims mainly to impress users with aesthetic displays for viewing, such as icons, fonts, layout, navigation, color, video/photo, and effect. UI mainly connects with UX by allowing users to easily and smoothly use the program with aesthetics (Tongsubanan and Kasemsarn, 2024; Ubam, Hipiny, and Ujir, 2021; Weichbroth, 2020).

Methodology

This research for this study consisted of three sub-studies combining three research methods presented in Figure 1 as research workflow:

1. Collecting data from interviews with four web design experts and 18 big bike tourist groups to create a website wireframe suitable for cultural tourism traveling by big bike (Qualitative) (October 15 to December 18, 2021);
2. Designing the website, www.kalasin.city, from users' needs and experts' recommendations (practice-based research) (December 19, 2021, to October 30, 2022);
3. Evaluating a Kalasin province website for big bike tourism by 100 online questionnaires to promote cultural tourism in Kalasin (Quantitative) (November 1 to December 1, 2022).

Regarding the validity test, all interview questions for experts and big bike tourists (study 1) and online questionnaire questions (study

3) passed the validity test from the item-objective congruence (IOC) index (Rovinelli and Hambleton, 1976) with three experts.

For the reliability test, after interviews (study 1), researchers transcribed and used content analysis with thematic coding analysis to group the meaning of the answers, which was checked by four researchers (Ryan and Bernard, 2000). This section is divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation, as well as the experimental conclusions that can be drawn.

Aim: To propose a conceptual framework and create and evaluate the big bike cultural and heritage tourism website of Kalasin Province

Phase 1: 4 Expert interviews (web designers) and 18 Big bike tourists
Results: UX, UI, content recommendations for the website

Phase 2: Designing www.kalasin.city
Results: A website with 10 cultural tourism attractions in Kalasin Province

Phase 3: Evaluating a website by 100 online questionnaires
Results: UX, UI, content, desirability evaluations (Mean, S.D.)

Figure 1 Research workflow

Results

Study 1: Results of Expert Interviews

In this study, the qualifications for a web design expert were to be a qualified lecturer teaching at a university in the field of communication design, or a designer with a senior position and at least five years of experience. As a result, the researchers contacted two academics

(graphic design and web design) and two senior web designers for interviews. The aim of interviewing experts was to gather suggestions about designing a cultural tourism website for the big bike group. The interviews occurred from October 15 to December 18, 2021. Before interviewing, researchers showed and let the experts watch and try two samples of big bike tourism websites that had received international awards between 2017 and 2021, presented in Table 1. Researchers used three semi-structured questions (UX, UI, content) for experts to analyze the strengths of each website that can be applied to the Kalasin website. After that, experts suggested guidelines that should be applied to the website, presented in Table 2.

After interviewing and using coding analysis to group all experts' comments, researchers adopted the recommendations presented in Table 2 and designed two styles of website wireframe forms, as shown in Figures 2 and 3:

Table 1 The details of two sample websites for expert interviews

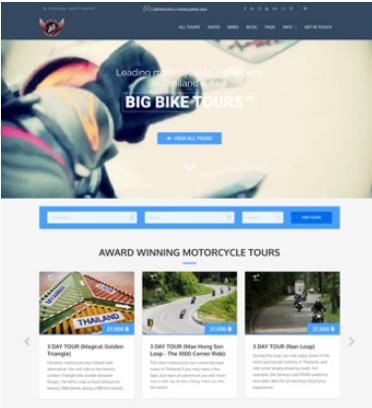
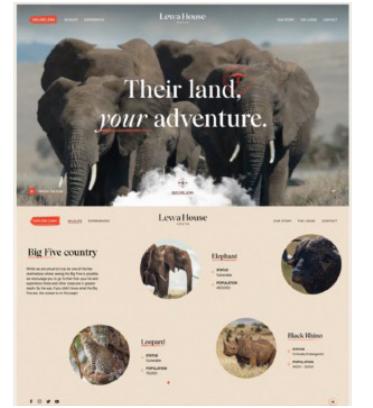
	
<p>www.biggiketours.com Award: 2018–2020 Certificates of excellence by TripAdvisor</p>	<p>lewhouse.com Award: Website of the Month, March 2021 and Highest UI UX and Innovation Score at 9.06/10 in Travel Website Category</p>

Table 2 Summary table of coding analysis of interviews with four web design experts

Theme	Comments
User experience	
Motivation and participation	<ul style="list-style-type: none"> Focusing on an impact on storytelling; a presentation on the cool lifestyle of being a group of people who ride motorcycles; like a game that makes you feel ecstatic and thrilled while riding a big bike; emphasize feelings of being a gang with "bad boys"
Functions are designed according to user needs	<ul style="list-style-type: none"> Creating a popular menu; users do not need to search; create the goals of the website and explain the main features; put all main features on the homepage without scrolling for easy access by the user; should be a website that focuses on information and reservation functions; easy to see buttons and menu so that users know where they are; clear menu, buttons, and sections
Increase creditability	<ul style="list-style-type: none"> Make it more professional; show proof that other bikers actually went there and shared
Variety to access to website	<ul style="list-style-type: none"> Use function 'mobile response'; using voice control for disabled people
Fast download	<ul style="list-style-type: none"> The websites must be loaded quickly and smoothly; be careful with detailed animations which cause slow loading
User interface	
Using effect animation	<ul style="list-style-type: none"> Use 'Effect Video Animation'; using animation and images causes people to want to visit; use functions, 'scrolling and navigator' and 'motion transfer'; use animated effects to show zigzag paths and maps
Interesting pictures	<ul style="list-style-type: none"> Dramatic images are very effective in stimulating the imagination; use a dark tone background to make the subject stand out; use a sepia color technique
Using video	<ul style="list-style-type: none"> Adding a video banner and intro of the website; focus on video editing techniques
Single page layout	<ul style="list-style-type: none"> Use single page website with clear layout
Mood and Tone suitable to the website	<ul style="list-style-type: none"> Mood and tone match corporate identity
Having 'label button'	<ul style="list-style-type: none"> There should be a 'discover button' and popular search or keywords prepared for users

Table 2 Summary table of coding analysis of interviews with four web design experts (cont.)

Theme	Comments
Using transition	<ul style="list-style-type: none"> Use interesting animation transitions with fast loading
Presenting user's location on the web	<ul style="list-style-type: none"> Present where the users are and what the next pages are; identify the user's location on the website
Content	
Introducing interesting places	<ul style="list-style-type: none"> Have a 'tourist spot' to take pictures of interesting locations; have 'rest spots' for hotels, gas stations, service areas; adding storytelling and content of locations, trips
Content and fonts are easy to read	<ul style="list-style-type: none"> Content must be easy to read and minimal; present information well, clearly, and concisely
Creating an atmosphere with messages	<ul style="list-style-type: none"> Tell the story first and then information; the first page should have an intro about the passion for motorcycling
Sharing to social media	<ul style="list-style-type: none"> Reviews can be linked to Facebook or Twitter

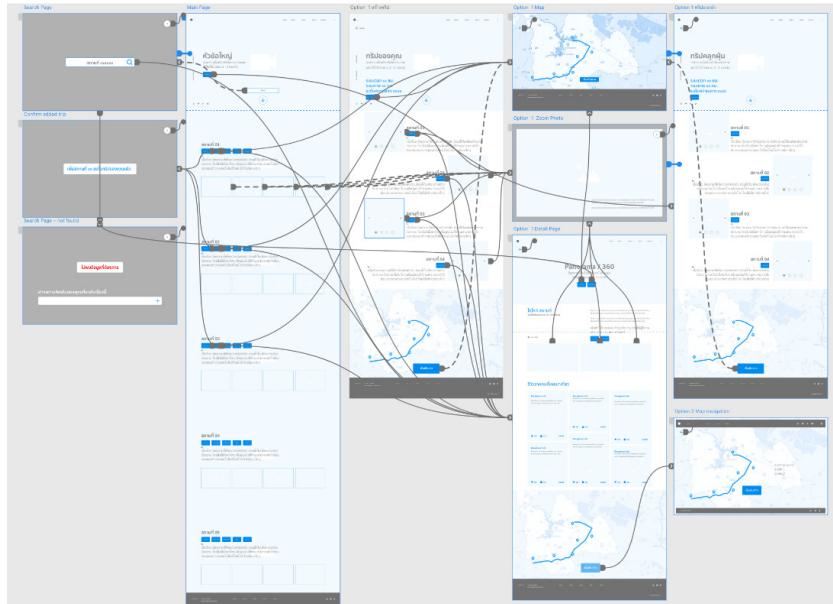


Figure 2 Website wireframe type 1



Figure 3 Website wireframe type 2

Study 1: Results of Big Bike Tourist Interviews

Next, 18 big bike tourist interviews were set up. The criteria for selecting the 18 big bike tourists were that they (1) lived in Thailand, (2) were aged 18 years and over, (3) had a drivers' license, (4) had a vehicle with a size of 250 cc and above, and (5) had traveled on a big bike at least once. The aim of this interview was to collect information for designing websites to promote cultural tourism matched to the target group's needs and interests. Interviewers used a semi-structured questionnaire divided into six aspects. The results of the interview were transcribed and presented in Table 3.

Study 2: Designing www.kalasin.city from Users' Needs and Experts' Recommendations

This stage consisted of practical research using the interview results from the study to create, develop, and improve a website to promote tourism in Kalasin for big bike tourists, presented in Figures 4-7. First, the researchers developed design factors such as a logo, font, colors,

Table 3 Summary table of thematic and coding analysis for tourists who use big bikes as a vehicle and the number of participants mentioned in the parenthesis []

Theme	Comments
The purpose of big bike tourism	
What is the main purpose of big bike tourism?	<ol style="list-style-type: none"> 1. Pride in being able to go the hard way, inaccessible car, having to challenge yourself [6 mentions] 2. Experience nature, wind, fog [5 mentions] 3. Be the first to discover a place and have the desire to convey the experience of traveling, learning the way of life [4 mentions] 4. Driving a motorcycle to keep going [3 mentions] 5. The friendship of the big bike group; making new friends [2 mentions]
Why did you choose a big bike as a vehicle for traveling?	<ol style="list-style-type: none"> 1. Versatility in parking or traveling [7 mentions] 2. Able to access places that cars cannot access [6 mentions] 3. It is a gadget for “boys with toys” [1 mention] 4. Connection between motorcycles with people [1 mention] 5. Travel costs are cheaper [1 mention]
Please tell about your impressive experience in traveling with a big bike.	<ol style="list-style-type: none"> 1. Spending time with friends in the big bike group together [5 mentions] 2. Making new friends [3 mentions] 3. Impressions of the place and way of life of the villagers or locals [2 mentions] 4. Accomplishing the goals set [2 mentions] 5. Having an adventure is an unexpected experience, I but got through it [1 mention]
2. How to choose the location	
What are the factors that affect your choice of tourist attractions?	<ol style="list-style-type: none"> 1. Great views [4 mentions] 2. Voted according to the opinion of group travelers [4 mentions] 3. Appropriateness of the route compared to using a car [2 mentions] 4. Travel time [2 mentions] 5. Unseen places are not yet known Much [2 mentions] 6. Place that I haven't been to [2 mentions] 7. Season [1 mention] 8. Interest in arts and culture of that place [1 mention] 9. Availability of car [1 mention]
Please tell about the steps to plan traveling by big bike	<ol style="list-style-type: none"> 1. Asking for information from local people or big bike groups in social media [5 mentions] 2. Mainly Google search [4 mentions] 3. Viewing information from Facebook, YouTube, and social media [1 mention]

Table 3 Summary table of thematic and coding analysis for tourists who use big bikes as a vehicle and the number of participants mentioned in the parenthesis [] (cont.)

Theme	Comments
Please share other big bike tourist information	<ol style="list-style-type: none"> 1. Prominent places of the province [10 mentions] 2. Coffee shops; restaurants [2 mentions] 3. Limitations; inaccessibility of those places [2 mentions] 4. Contact numbers in the community or local big bike groups [1 mention] 5. Gas stations or rest stops [2 mentions] 6. Opening hours [1 mention]
3. Problems/needs	
What is the most common problem in searching for information on big bike travel websites and social media?	<ol style="list-style-type: none"> 1. Information is inaccurate or out of date [7 mentions] 2. No directions; reviews of road conditions or routes [5 mentions] 3. Pictures are more beautiful than the real scenery [3 mentions] 4. No prohibitions, restrictions of that place, such as loud noises, tent spreading [1 mention] 5. Google Ads inventory interferes with viewing information [1 mention] 6. Too much text, hard to read [1 mention]
4. Functional requirements of travel websites	
What functions of the website for big bike travel do you want?	<ol style="list-style-type: none"> 1. Creating your own trips or itineraries [8 mentions] 2. Complete and updated information [8 mentions] 3. Pictures and reviews from people who have been there [4 mentions] 4. Categorized places [1 mention] 5. Chat Box [1 mention]
5. Characteristics of images and videos	
What is your favorite type of big bike travel photos and video?	<ol style="list-style-type: none"> 1. Emphasis on beautiful wide views [7 mentions] 2. Local lifestyle images [4 mentions] 3. Emphasis on action of motorcycles [4 mentions] 4. Must have motorcycles as an element in the image [3 mentions] 5. Festival images of motorcycles [1 mention]
What is your favorite style of big bike travel video?	<ol style="list-style-type: none"> 1. Telling a story in semi-reality; using a 360-degree technique; use drone images; video presented with subtitles [1 mention]
6. Website wireframe design	
Which wireframe do you prefer for big bike tourism website	<ol style="list-style-type: none"> 1. Most tourists selected type 2 because there is a search section and information (e.g. where to go); easier to use; both wireframes are beautiful, but I feel that type 2 is easier to use

and photographs. Next, they created www.kalasin.city. This process was divided into two major steps. Using wireframe design with the widely-used Adobe XD program. After that, the information obtained was developed into a website. The website was developed using the ready-made website manager WordPress as a starting point, then add-ons of the program (plug-ins) were chosen from a variety of options. The result is the website, www.kalasin.city, developed and tested in more than five pilot tests and revisions from June to October 2022, as presented in Figure 5-7.



Figure 4 The logo on the website, the provincial emblem of Kalasin, and typography

The logo of the website is derived from the image of the ponlang, the province's traditional musical instrument. The color scheme used throughout this website is orange and black, where orange is the color that appears in the provincial emblem. This followed experts' recommendations that the mood and tone of the elements on the website should match corporate identity. The researchers focused on fonts that use techniques to draw with cutting-edge pens or brushes presenting a distinctive look and a feeling of adventurous excitement, in line with the concept of adventure tourism.

Study 3: Evaluation of Big Bike Group's Satisfaction with Website Usage

The quantitative research yielded results from 100 online questionnaires of big bike tourists, calculated from the total number of 34,000 big bike



Figure 5 Section 1-Main menu and video highlights that could be linked to sections 2-3



Figure 6 Section 2-All trips and interesting routes from users' interview recommendations

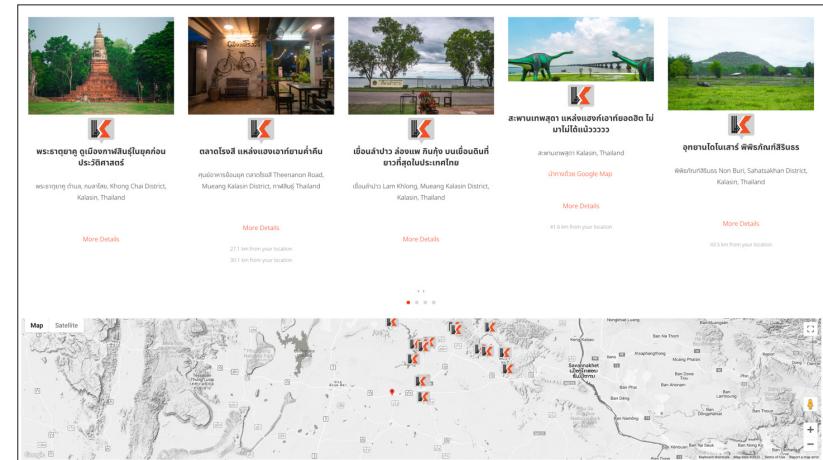


Figure 7 The information in section 3 is presented as a Google Map pin, by which users can click the icon to view information and navigate to that place

motorcycles of more than 250 cc in Thailand, with the population quantification from Taro Yamane's formula with a confidence level of 90 percent and a tolerance of ± 10 percent (Yamane, 1967). The online questionnaire was distributed between November 1 and December 1, 2022, as a specific random sampling (purposive sampling) by selecting a sample group through social media channels, including 10 Facebook groups and 14 Line groups. The criteria for the target group were the following: (1) to live in Thailand, (2) be aged 18 years and over, (3) to have a driver's license, (4) to have a big bike with a size of 250 cc and above, and (5) to have traveled on a big bike at least once. The purpose was to measure the level of satisfaction with factors throughout the website. One hundred users answered an online questionnaire (Google Form) using a rating scale based on the Likert Scale format from 1 = very dissatisfied to 5 = very satisfied, with average mean score and interpretations indicated below:

- 1.00-1.49 = Very dissatisfied
- 1.50-2.49 = Dissatisfied
- 2.50-3.49 = Neutral
- 3.50-4.49 = Satisfied
- 4.50-5.00 = Very satisfied

The questionnaire completion time varied from 10 to 20 minutes. The online questionnaire consisted of two parts. Part 1 consisted of demographic profile data (gender, age, types of big bike, visiting Kalasin) presented in Table 4. Part 2 consisted of the following four factors: (1). seven questions regarding user experience (UX), (2) six questions about user interface design (UI), (3) three questions about content, and (4) two questions regarding desirability. Results of the four factors are presented in Table 5.

From 100 big bike tourists, the demographic results indicate that most tourists were male, 77.6 percent (83 respondents), aged 31-40, 37.4 percent (40 respondents), prefer touring big bike tourism 61.7 percent (66 respondents) with the majority having visited Kalasin province more than one time at 59.6 percent (65 respondents).

Table 4 Demographic results from 100 target users

Factors	Number	Percentage
Age		
18 - 30	30	28
31 - 40	40	37.4
41 - 50	24	22.4
51 - 60	12	11.2
Over 60	1	0.9
Gender		
Male	83	77.6
Female	20	18.7
LGBTQ	3	2.8
Unidentified	1	0.9
Type of big bike tourism you prefer		
Touring	66	61.7
Sport	6	5.6
Adventure	10	9.3
Cruiser	25	23.1
How many times have you visited Kalasin province?		
More than once	65	59.6
Once	12	11
Never	30	29.4

Table 5 Summary table of big bike groups' satisfaction assessment results towards the website.

Factors	\bar{X}	S.D.	Meaning
1. Evaluation of satisfaction on 'user experience'			
1.1 This website is useful.	4.47	0.80	Satisfied
1.2 I could use this website without any problem (usable).	4.53	0.72	Very satisfied
1.3 The elements of the website are easy to see (such as navigation buttons, menus, home page, etc.) (findable).	4.45	0.83	Satisfied
1.4 This website looks creditable (creditable).	4.55	0.64	Very satisfied
1.5 This website is interesting and attractive to use (desirable).	4.45	0.87	Satisfied
1.6 This website is easy to access (accessible).	4.39	0.93	Satisfied

Table 5 Summary table of big bike groups' satisfaction assessment results towards the website (cont.)

Factors	\bar{X}	S.D.	Meaning
1.7 I would like to share this website with others (valuable).	4.47	0.76	Satisfied
Total	4.47	0.79	Satisfied
2. Evaluation of satisfaction on 'user interface design'			
2.1 I feel satisfied with the font on this website (size, easy to read).	4.44	0.83	Satisfied
2.2 I feel satisfied with the website layout (size of pictures, ratio of pictures and fonts, layout).	4.49	0.84	Satisfied
2.3 I feel satisfied with the navigation (menu, search box).	4.46	0.84	Satisfied
2.4 I feel satisfied with the colors (font, buttons, background color).	4.46	0.78	Satisfied
2.5 I feel satisfied with the videos and photos (composition, mood and tone, color, video editing).	4.53	0.71	Very satisfied
2.6 I feel satisfied with the side effects (slide show, fade in-out, effect of buttons).	4.47	0.78	Satisfied
Total	4.47	0.79	Satisfied
3. Evaluation of satisfaction on 'website content'			
3.1 I feel satisfied with the 'amount of content' (amount of text, content, pictures).	4.38	0.82	Satisfied
3.2 I feel satisfied with 'how to present content' (writing style).	4.53	0.72	Very satisfied
3.3 I feel satisfied with the appropriate balance between pictures and content.	4.54	0.69	Very satisfied
Total	4.48	0.74	Satisfied
4. Evaluation of 'desirability'			
4.1 This website impressed me.	4.55	0.71	Very satisfied
4.2 After using this website, I decided to travel in Kalasin.	4.54	0.72	Very satisfied
Total	4.54	0.71	Very satisfied

Discussion

UX

In terms of UX, the website is useful in that it allows the user to create trips through a navigation system with Google Maps, route reviews, and pictures showing the distance between places. As a result, it can be easily searched (findable) using a color contrast (orange-black) that highlights features and buttons the user can find quickly.

Next, in terms of the accessible variable, the researchers created a website on the domain name, www.kalasin.city, which is the name of the province, making it easy for the target audience to remember the name of the website and link with social media. This result is supported by Walker (2010) and Cater (2017), who indicate that the big bike community is very strong as a niche group. They always share experiences and information, and they have a sense of belonging to a community.

In the evaluation of satisfaction for UX, average scores from seven factors from Table 5 received 4.47 out of 5, meaning "satisfied." UX indicates how users feel as they interact with a website (Konstantakis and Caridakis, 2020). This means that big bike users felt satisfied during testing.

This is because researchers followed users' needs about information on routes, road conditions, and travel time. Moreover, researchers adopted the following seven UX factors (Interaction Design Foundation, 2021): It has a purpose for users (useful); Users can use it without problems (usable); Users can find different parts of the website easily (findable); The website is reliable (creditable); It is attractive and creates a passion for users to visit (desirable); It is easily accessible (accessible); It creates value for users (valuable).

In brief, the high satisfaction score reflects the success in addressing key UX factors. This approach, informed by user interviews and focusing on crucial information, ensures that the website not only meets functional requirements but also creates an engaging experience. The success of www.kalasin.city's UX design underscores the effectiveness of a user-centered approach in creating websites for niche tourism segments.

UI

Website layout: On the website, the researchers used a layout similar to Facebook, based on information obtained from target audience interviews that indicates users need a familiar layout.

Navigation system: The researchers used the main menu layout on top with a black bar as a popular and familiar layout. If visiting from a mobile device, the main menu will be shortened to a three-line icon (hamburger menu), which is a universal symbol used on general websites. This is consistent with the recommendation that a smooth navigation to the final outcome creates a good experience (Gupta and Duggal, 2021).

Color scheme: Researchers used orange and black tones, the colors used in the Kalasin province emblem. This color combination also evokes excitement, corresponding with the World Tourism Organization's adventure tourism behavior (UNWTO, 2019).

Still images and videos: The researchers focused on photographs and videos that conveyed the excitement of the journey, the beauty of tourist attractions, and the roads in Kalasin showing pictures of both solo travel and big bike groups. These images were derived from the needs that big bike users expressed in the interviews.

Effect: The researchers used "slides and fade-in techniques" of images and content. When a user scrolled to the content section, the content would appear. This helps to make the website look attractive and not boring. In addition, the navigation buttons also use micro animation to encourage users to see them and become interested in their content.

Evaluation of satisfaction for UI: The average score from six questions was mean 4.47 (satisfied). This is because this website adopted a layout similar to Facebook, the layout of the website that the target audience likes. These are all recommendations from Luna-Nevarez and Hyman (2012), who suggest addressing six main factors (with 26 sub-factors) to create a tourism website. Moreover, all UI variables are consistent with studies that indicate color should be matched to corporate identity, icons and illustrations should complement concept and storytelling, and layout should be clear and familiar to users (Ubam, Hipiny, and Ujir, 2021; Weichbroth, 2020).

In brief, the User Interface (UI) of www.kalasin.city effectively satisfies big bike tourists through design factors. Applying

user-centered design, that combines familiar design patterns with content presented for the target audience resulted in a highly satisfying user experience, as evidenced by the 4.47 out of 5 satisfaction score. The success of this UI demonstrates the importance of aligning design with user needs and established principles in creating effective niche tourism websites.

Content

Amount of content: The amount of content on each page of the website was in a proportion of approximately 80 percent images and 20 percent text because the target group prefers viewing images over reading. This is consistent with the research of Luna-Nevarez and Hyman (2012) stating that the content on the home page should contain a small amount of text and use images to present more.

How to present content: This website presented the overall trip before the separate location presentation. This allows the target group to recognize how many big bike tourist attractions are in Kalasin province and lets them choose a trip that is close to their favorite travel style. In addition, researchers also used a short and concise message with informal language to convey the mood of traveling with friends. This is related to recommendations to use friendly language and concise wording (Cater, 2017).

Appropriateness of pictures and content: On this website, researchers went to Kalasin province to take all the travel photos and videos. Therefore, content and illustrations could be matched.

Evaluation of satisfaction with website content: This received an average score of 4.48 out of 5 (satisfied) from three questions. The content matched the needs that users indicated in interviews: specific big bike routes, reviews of routes that are suitable for vehicles, and attractive and motivating pictures.

This is supported by Kasemsarn et al. (2023) who state that a website's content is the first significant factor for website success. Moreover, the result of the content matched studies of Walker (2010) and Cater (2017), who state that big bike users need information about

parking, unseen locations, stopping points, communities, local restaurants, and facilities. This is also consistent with the research of Reangvaranont (2019), pointing out that the factors Thai tourists seek out when choosing where to visit are beautiful accommodations; safe parking places; clean tourist attractions; an exotic city; a place that is interesting to find; a city that is not well known, not crowded, and quiet; and a city that provides tourist information.

In brief, the content directly addresses user needs by providing specific routes, reviews, and essential information on parking, unseen locations, stopping points, local amenities, and safety. The visual appeal with relevant information successfully meets the specific needs of big bike tourists, significantly enhancing the overall user experience.

Desirability

This section aimed to check whether the www.kalasin.city website could lead users to decide to travel in Kalasin province or not as the final goal. Evaluation of satisfaction for desirability of the website reveals that it received an average score of 4.54 out of 5 (very satisfied) from two questions. Kasemsarn (2022) and McGinley (2012) agree that this variable is the most important factor when designing new products or services. It may pass UX, UI, content, usability test, but users may not want to use it in reality.

In brief, this high score is significant as it represents the website's goal-inspiring action among big bike users. This section suggests that the website not only meets functional and aesthetic requirements, but also creates an inspiration for visiting Kalasin.

Presenting the Conceptual Framework of the Big Bike Tourism Website

After a literature review, interviews with four experts (two from university in the field of communication design and two designers with a senior position and at least five years of experience) and big bike tourists, and evaluating the website with online questionnaires to answer research question set in the introduction, researchers presented the

conceptual framework for creating a big bike tourism website in Figure 8 and Table 6:

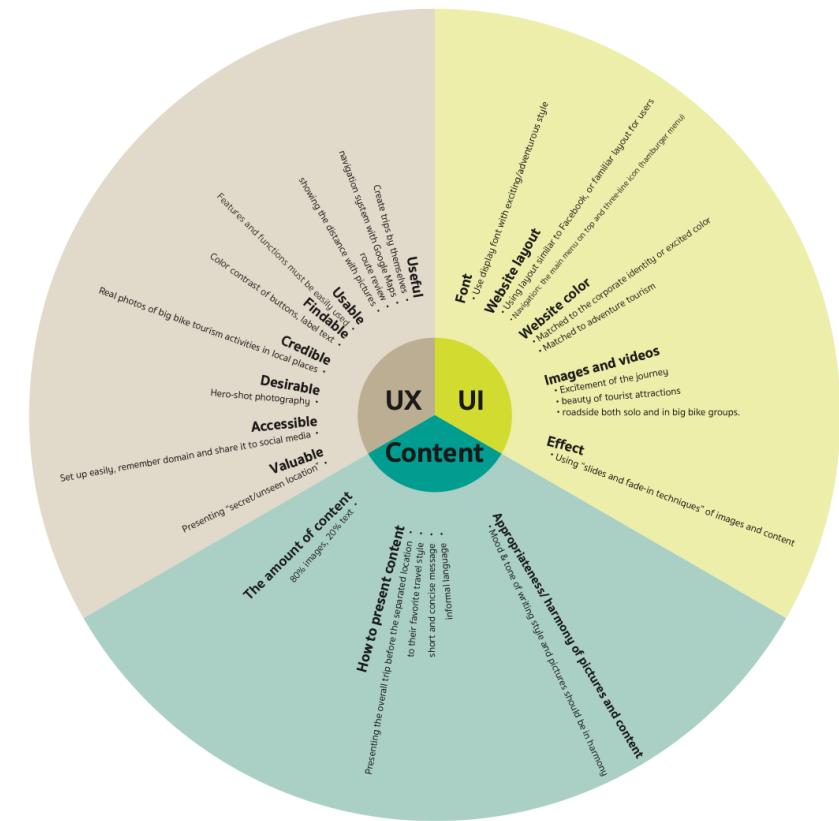


Figure 8 Presenting the conceptual framework of the big bike tourism website.

The structure of the framework, which includes UX, UI, and content factors, ensures that the website design for big bike tourism is done in a complete way. There are three main sections that are shown: UX (six parts), UI (five parts), and content (three parts). This framework can be used as a design guideline during the development process to talk about and plan by designers, tourism industries, and other stakeholders.

Table 6 Details of the conceptual framework

Factors	Variables	Recommendations
UX	Useful	Create trips by users, navigation system with Google Maps, route reviews, showing the distance with pictures
	Usable	Features and functions must be easy to use
	Findable	Color contrast of buttons, label text
	Credible	Real photos of big bike tourism activities in local places
	Desirable	Hero-shot photography
	Accessible	Set up easily, remember domain and share it to social media
	Valuable	Presenting “secret/unseen locations”
UI	Font	Use display font with an exciting/adventurous style
	Website layout	Using layout similar to Facebook, or other familiar layout for users Navigation: the main menu on top and three-line icon (hamburger menu)
	Website color	Matched to the corporate identity or exciting colors, matched to adventure tourism
	Images and videos	Excitement of the journey, beauty of tourist attractions, roadside both solo and in big bike groups.
	Effect	Using “slides and fade-in techniques” of images and content
Content	The amount of content	80 percent images, 20 percent text
	How to present content	Presenting the overall trip before the separate location to their favorite travel spot, short and concise message, informal language
	Appropriateness/harmony of pictures and content	Mood and tone of writing style and pictures should be in harmony

Conclusion

This study proposed a framework and created and evaluated the big bike cultural tourism website of Kalasin, as a less-visited province, to attract big bike tourists to increase the local economy. By doing that, this research consists of three studies combining three research methods,

interviews with four web design experts and 18 big bike tourists as a qualitative study, creating a website as practice-based research, and evaluation of a website by 100 online questionnaires as a quantitative study. As a result, to answer research questions, researchers summarized a guideline, presented in Figure 8 and Table 6, and created www.kalasin.city as a prototype.

Regarding the conceptual framework, it offers significant advantages for website developers and the cultural tourism industry. It was developed from a literature review, expert interviews, and users' evaluations. Moreover, it includes a comprehensive summary of UX, UI, and content factors specific to big bike tourists' needs. Ultimately, the framework can contribute to the growth of niche cultural tourism in target areas like Kalasin, supporting local economies and diversifying tourism offerings.

This research contributes to knowledge about tourism marketing as understanding the demographic profile and lifestyle of big bike tourists in Thailand and what they need from a specific website. Hence, tourism organizations or companies could create marketing plans to match their interest as high-value tourists. Next, regarding website design, this research proposes the conceptual framework, composed with UX, UI, and content, to create a big bike tourism website. Designers could apply this finding to create or improve media or websites matched to the target group's interests and understanding.

This research offers marketers, web designers, and tourism professionals useful tools in addition to deepening our understanding of big bike tourism and website design. The results can be used to create digital marketing plans that are more successful, enhance user experiences on travel websites, and possibly boost travel to less-traveled destinations. In addition, this study's methodology and conceptual framework can be used as a model for investigating and creating websites for other specialized travel markets, which will advance the fields of digital marketing and tourism studies.

However, one of the limitations of this research is that it was conducted only for the target group of tourists using big bikes as their

main vehicle. If applied to other target groups, further study of the components related to that target group should be conducted. Moreover, it was designed for less-visited cities to attract new tourists, not for popular cities.

Acknowledgments

This research was supported by the Program in Digital Media Design and Motion Pictures, School of Architecture, Art, and Design, KMITL, Thailand.

References

Broughton, P. and Walker, L. (2016). **Motorcycling and leisure: Understanding the recreational PTW rider**. London: CRC Press.

Cater, C. I. (2017). Tourism on two wheels: Patterns of motorcycle leisure in Wales. **Tourism Management**, **61**, 180-189.

Colarič-Jakše, L. M. and Ambrož, M. (2015). Motorcyclist-tourist's corporeal and spiritual experiences. **Mediterranean Journal of Social Sciences**, **6**(3 S2), 358-366.

Duong Thi Hien and Tran Duc Thanh. (2022). Conflicts between residents and other stakeholders at community-based tourism destinations: A case study of Pu Luong natural reserve, Vietnam. **Journal of Mekong Societies**, **18**(3), 43-63.

Frash Jr., R. E. and Blose, J. E. (2022). Investigating flow in motorcycle tourism: A review of previous research and identification of opportunities. **Zeitschrift für Tourismuswissenschaft**, **14**(3), 263-282.

Gupta, V. and Duggal, S. (2021). How the consumer's attitude and behavioural intentions are influenced: A case of online food delivery applications in India. **International Journal of Culture, Tourism and Hospitality Research**, **15**(1), 77-93.

Iamtrakul, P. and Chayphong, S. (2019). The study on impact of road safety by considering motorcycle rental behavior of foreign tourists in Chiang Mai. **University of the Thai Chamber of Commerce Journal Humanities and Social Sciences**, **39**(2), 1-1.

Kasemsarn, K. (2022). Creating a cultural youth tourism e-book guidelines with four design factors. **International Journal of Visual Design**, **16**(2), 31-51.

Kasemsarn, K. (2024). Applying classic literature to facilitate cultural heritage tourism for youth through multimedia e-book. **Heritage**, **7**(9), 5148-5173.

Kasemsarn, K., Mungkornwong, K., Patcharawit, K., and Sumthumpruek, A. (2023). What information content do students want from a postgraduate design course website? A case study applied to user-centered design. **International Journal of Visual Design**, **17**(1), 17-41.

Konstantakis, M. and Caridakis, G. (2020). Adding culture to UX: UX research methodologies and applications in cultural heritage. **Journal on Computing and Cultural Heritage (JOCCH)**, **13**(1), 1-17.

Lee, J. W. and Brahmashrene, T. (2013). Investigating the influence of tourism on economic growth and carbon emissions: Evidence from panel analysis of the European Union. **Tourism Management**, **38**, 69-76.

Luna-Nevarez, C. and Hyman, M. R. (2012). Common practices in destination website design. **Journal of Destination Marketing & Management**, **1**(1-2), 94-106.

McGinley, C. G. (2012). **Supporting people-centred design through information and empathy**. Ph.D. Dissertation, Department of Design, Brunel University, Uxbridge, UK.

Ramoa, C. E. A., Pires, P. S., and Añaña, E. S. (2021). Motorcycle tourism and nature: An analysis of motorcyclists' motivations to travel. **Leisure Studies**, **40**(3), 407-423.

Reangvaranont, M. (2019). Factors affecting the decision to buy a big bike motorcycle of Thai people in Phuket. **Journal of International Studies, Prince of Songkla University**, **9**(1), 209-237.

Rovinelli, R. J. and Hambleton, R. K. (1976). **On the use of content specialists in the assessment of criterion-referenced test item validity**. Washington, DC: Educational Resources Information Center (ERIC).

Ryan, G. W. and Bernard, H. R. (2000). **Data management and analysis methods. Handbook of qualitative research**. Thousand Oaks, CA: Sage.

Shih, H. Y. (2006). Network characteristics of drive tourism destinations: An application of network analysis in tourism. **Tourism Management**, **27**(5), 1029-1039.

Surapiyawong, P. and Kasemsarn, K. (2024). Mobile application of local Baba-Peranakan food tourism for generation Y: A case study of Phuket province, Thailand. **Journal of Mekong Societies**, **20**(2), 101-130.

Sykes, D. and Kelly, K. (2016). Motorcycle drive tourism leading to rural tourism opportunities. **Tourism Economics**, **22**(3), 543-557.

Tongsubanan, S. and Kasemsarn, K. (2024). Developing a design guideline for a user-friendly home energy-saving application that aligns with user-centered design (UCD) principles. **International Journal of Human-Computer Interaction**, 1-23.

Ubam, E., Hipiny, I., and Ujir, H. (2021, October). User interface/user experience (UI/UX) analysis and design of mobile banking app for senior citizens: A case study in Sarawak, Malaysia. In **2021 International Conference on Electrical Engineering and Informatics (ICEEI)**. (pp. 1-6). Kuala Terengganu, Malaysia: IEEE.

Walker, L. (2010). Tourism and leisure motorcycle riding. In **Prideaux, B. and Carson, D.(Eds), Drive Tourism: Trends and Emerging Markets.** (pp. 146-158). Routledge, New York, NY.

Weichbroth, P. (2020). Usability of mobile applications: A systematic literature study. **Ieee Access**, **8**, 55563-55577.

World Tourism Organization UNWTO. (2019). **UNWTO tourism highlights: 2018 edition**. Madrid: UNWTO.

Yamane, Taro. (1967). **Elementary sampling theory**. Englewood Cliffs, NJ: Prentice Hall.

Websites

Interaction Design Foundation. (2021). **Interaction Design Foundation**. Retrieved October 1, 2023, from www.interaction-design.org

Kalasin Provincial Development Plan. (2023). **Provincial development strategy and information, Kalasin province 2023-2027**. Retrieved October 15, 2023 from <https://shorturl.asia/pHiKv>

Thai Transportation Statistics Group (2021). **Transport statistics group, planning division, department of land transport**. Retrieved October 1, 2023 from <https://web.dlt.go.th/statistics/>