Managing Tourism and Enhancing the Visitor Experience

Research and Feasibility Report on the Development of a Hawai'i Smart Tourism App

Sassato Consulting

December 19, 2024

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Project Background

The concept of "Smart Tourism" emerged around 2010, evolving from "Smart Cities."

It gained prominence as destinations sought technological solutions to address over tourism and enhance visitor experiences.

While there is no single agreed upon definition of Smart Tourism it can be summarized as:
The use of information and communication technologies to enhance the tourist experience and improve the efficiency of resource management to maximize both destination competitiveness and consumer satisfaction while also demonstrating sustainability.

Most definitions emphasize:

- The use of advanced technologies (ICT, IoT, AI, etc.)
- Data collection and utilization
- Enhanced tourist experiences
- Improved efficiency and sustainability
- Integration of various stakeholders and resources
- From a Hawaiʻi perspective, Smart Tourism is a tool to support Destination Management efforts.

Smart Tourism In Hawaiʻi

- As one of the leading destinations in the world, Hawaiʻi has also been aware of and involved in Smart Tourism since its inception.

- In 2020, when looking at post-covid tourism UHERO (University of Hawaiʻi Economic Research Organization), issued a report titled "Can Hawaiʻi Rise from the Ashes of COVID-19 as a Smart Destination?"

- The Hawaiʻi Tourism Authority's 2020-2025 Strategic Plan, while not directly addressing Smart Tourism, called for evaluating and utilizing technology to better manage tourism.

- The Island Destination Management Plans also mention the use of technology in improving destination management.

- The Smart Tourism app actively became a discussion in the legislature in 2023 and 2024 led by Tourism Chair Representative Quinlan, and included discussion of:

  – A facility reservation system on a statewide basis
  – Pre-paid time slots for parking at popular destinations
  – Providing alternative destinations during peak times
 – Safety and cultural guidelines

Several successful Smart Tourism initiatives have proved the feasibility of utilizing technology to better manage the destination, and have led to the discussion of a more integrated and unified approach for Hawai'i.

Smart Tourism Success Stories

Hā'ena State Park, Kaua'i (2019)	Implemented a reservation system limiting daily visitors to 900 (previously this number was often as high as 3,000 or greater). The system has been credited with "bringing serenity back" to the area and is now considered a model for other parks in Hawai'i. (https://gohaena.com/)
Wai'ānapanapa State Park, Maui (2021)	Introduced an online reservation system for out-of-state visitors and commercial operators, successfully integrating commercial tours into the system and reducing crowding and impacts on the local community. (https://www.gowaianapanapa.com/)
Hanauma Bay Nature Preserve, O'ahu (2021)	Requires reservations and has successfully reduced daily visitors from 3,000 to 720, allowing the ecosystem to recover. (https://www.honolulu.gov/parks-hbay/home.html).
Diamond Head State Monument, O'ahu (2022)	Launched an online reservation system for out-of-state visitors, helping to mitigate environmental impacts, reduce vehicle congestion, and improve the overall visitor experience. (https://dlnr.Hawai'i.gov/dsp/parks/O'ahu/diamond-head-state-monument/)
'Īao Valley State Monument, Maui (2023)	Implemented an advanced reservation system for out-of-state visitors, aimed at protecting natural and cultural resources while managing visitor capacity within the area. (https://dlnr.Hawai'i.gov/dsp/parks/maui/iao-valley-state-monument/).

This led to the realization by many that a similar approach can be taken with other tourist "hotspots" and that it might be beneficial to integrate these programs on a single, easy-to-use platform.

The Transformation of Hā'ena State Park
A case study on how to manage a visitor hotspot
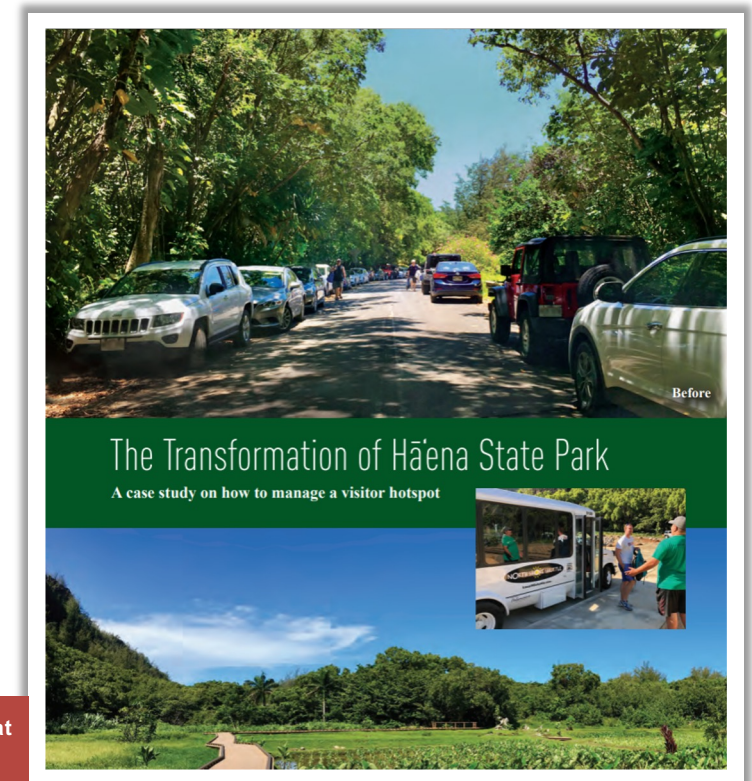
Despite numerous discussions and media coverage about a "Smart Tourism App," no clear legislative language or detailed requirements have been developed. It remains a general concept, highlighting the need for this in-depth review and recommendation.

2024 HTA Budget Includes $3.5 million earmarked for Smart Tourism destination management app.*

Legislative Intent

- HB 2563 was introduced in January 2024 and had some specifics about the app but the language related to this was removed from the bill. It is now focused on naming rights for the convention center. This bill has not been signed into law.

- SB 2659 - Signed into law on June 28, 2024 and includes aspects of regenerative tourism but does not include anything specific related to to Smart Tourism, tourism tech or the Smart Tourism app.

- HB 1800 - Signed into law on July 9, 2024, allocates funding for the HTA, within the HTA budget and specific line items for the Smart Tourism app.

The HTA 2023 budget has a few line items related to this, but besides the funding there is no additional detail:
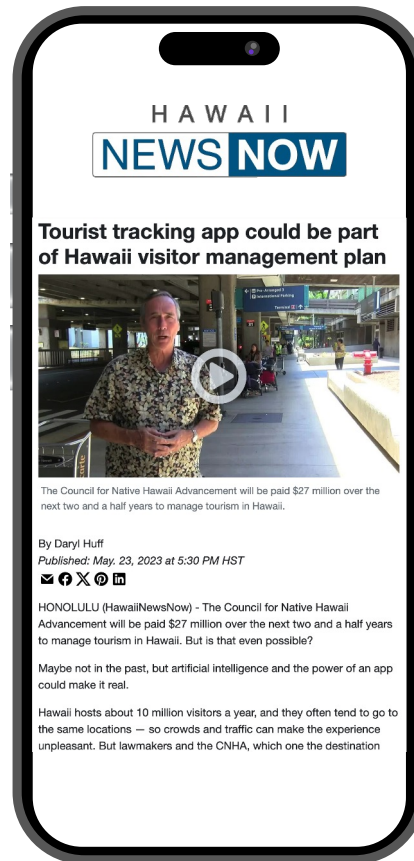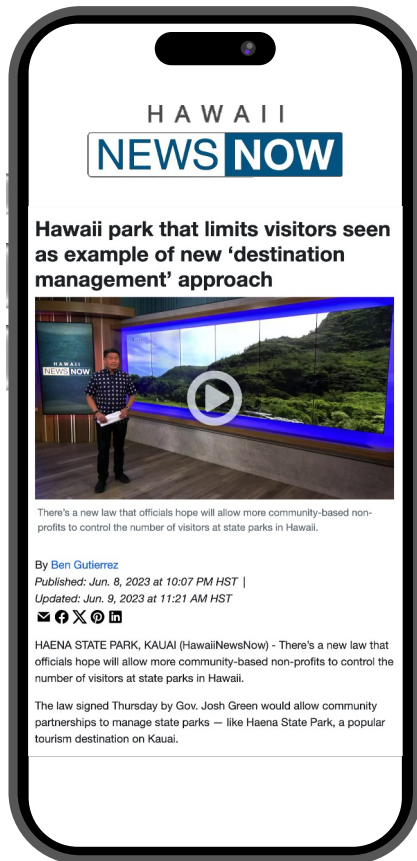
BED 116 Destination Stewardship and Community (DC)

014	Pono Travel Education Program	Visitor Education Post Arrival Marketing	964,148
402	Kahu 'āina	Kahu 'āina	784,022
601	Visitor Assistance Programs	Visitor Assistance Program O'ahu, Maui, Kaua'i, Hawai'i	650,000
TBD	Destination Management application	Destination Management app	1,500,000
TBD	Destination Management application	Recovery and Stabilization through Smart Tourism – DM app	450,000
718	Resort Area Hawaiian Cultural Initiative	Resort Area Hawaiian Cultural Initiative	784,022
TBD	Community-Based Tourism	Destination Management – DMAP Implementation	500,000
		Destination Management Implementation	122,154
TBD	Destination Management application	Smart Tourism – Destination Management app	1,550,000
TBD	Destination Management and Community Salaries	Salaries for 7 positions – CSO, DM x 5, AA	619,537
	BED 116 Destination Stewardship and Community Subtotal		**7,923,883**

*Hawai'i Tourism Authority Fiscal Year 2024 Budget Adjustment Summary Year to Date April 30, 2024

Recent press coverage and public statements about the smart app have raised the profile of the initiative.

Hawaii park that limits visitors seen as example of new 'destination management' approach

There's a new law that officials hope will allow more community-based non-profits to control the number of visitors at state parks in Hawaii.

By Ben Gutierrez
Published: Jun. 8, 2023 at 10:07 PM HST |
Updated: Jun. 9, 2023 at 11:21 AM HST

HAENA STATE PARK, KAUAI (HawaiiNewsNow) - There's a new law that officials hope will allow more community-based non-profits to control the number of visitors at state parks in Hawaii.

The law signed Thursday by Gov. Josh Green would allow community partnerships to manage state parks — like Haena State Park, a popular tourism destination on Kauai.

Lawmakers envision state visitor app to help manage tourists

Even with all the attention rightfully focused on helping Maui residents and Lahaina's rebuilding, lawmakers are still hoping to get a better handle on visitors

By Daryl Huff
Published: Mar. 4, 2024 at 5:12 PM HST |
Updated: Mar. 4, 2024 at 6:27 PM HST

HONOLULU (HawaiiNewsNow) - Even with all the attention rightfully focused on helping Maui residents and Lahaina's rebuilding, lawmakers are still hoping to get a better handle on Hawaii's overwhelming number of visitors this legislative session.

Key lawmakers are proposing an app for that.

Tourist tracking app could be part of Hawaii visitor management plan

The Council for Native Hawaii Advancement will be paid $27 million over the next two and a half years to manage tourism in Hawaii.

By Daryl Huff
Published: May. 23, 2023 at 5:30 PM HST

HONOLULU (HawaiiNewsNow) - The Council for Native Hawaii Advancement will be paid $27 million over the next two and a half years to manage tourism in Hawaii. But is that even possible?

Maybe not in the past, but artificial intelligence and the power of an app could make it real.

Hawaii hosts about 10 million visitors a year, and they often tend to go to the same locations — so crowds and traffic can make the experience unpleasant. But lawmakers and the CNHA, which one the destination

" **Green [Josh Green, Governor of Hawaiʻi]** has had concerns that could be eased by Destination Management, "We've been worried for a long time about the impact of our visitors. Overcrowding. Damage to what we think is most precious, which is our land, which we need for our keiki."

" **Sean Quinlan [state House Tourism Chair Rep]** has a 5-year-old and sees the Disneyland app as an example of how a state visitor app could redirect tourists from overcrowding areas, "And it's all right here, you don't have to carry a paper map. You don't have to wander around asking people for directions."

" **Tyler Iokepa Gomes [Responsible for CHNA's HTA Contract]** said that the data and new AI capabilities will make it manage visitors in real-time, "To track where all our visitors are and then perhaps suggestively redirecting them to less occupied spaces… that aren't currently overloaded."

With the desire to potentially develop this app and the lack of clarity around it, Sassato was engaged to look at the current landscape, stakeholder desires and develop an overview and recommendations for next steps.

This project was conducted between September 9th 2024 to December 17, 2024.

Smart App Concept

Smart Tourism app concept came out of the concept of Smart Tourism and Destination Management, which utilizes technology to this end.

Legislative Direction

The concept received positive feedback from legislators, has been included in draft bills, and secured initial funding through the HTA budget. However, specific requirements are yet to be defined.

Feasibility Study

Sassato was retained by Kilohana to determine current landscape, technology needs, and stakeholder views on the potential of having this Smart app.
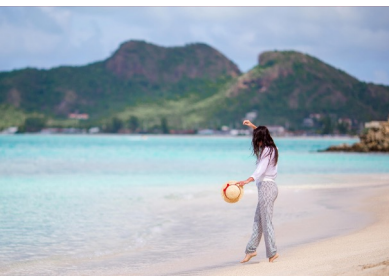
- The Hawai'i Tourism Industry is seeking to enhance its visitor and resident experience through the development of a destination smart app.
- The integration of digital services within the tourism sector is increasingly seen as an opportunity to improve visitor engagement, streamline services, and drive economic benefits.

- Sassato has been retained to assist in evaluating the feasibility and strategic approach, ensuring alignment with strategic goals and stakeholder interests.
- Sassato will deliver a comprehensive written report detailing all findings, analyses, and recommendations.

The Sassato team brings together seasoned consultants with decades of expertise in travel and tourism, both in Hawaiʻi and beyond.

Dan Wacksman
Project Lead

With over 25 years of experience in travel and hospitality, Dan has expertise in technology, marketing, travel distribution, and business management. He is currently CEO of Sassato, Senior Advisor McKinsey & Co, and previously SVP at Outrigger Resorts & Hotels among other senior industry roles.

Lisa Menor Miller
Stakeholder Analysis

A CPA with 35+ years of experience in strategy, finance, operations and project management, Lisa specializes in strategies for business growth, expansion, and transitions. She developed Zippy's expansion plan as VP at FCH Corporation and managed $400MM in transactions and asset sales as COO at HTH.

Mari Kam
Research and Marketing

Mari brings extensive experience in Hawaiʻi's hospitality industry, specializing in digital marketing. Her career includes roles leading digital marketing strategy at Waikīkī Marriott properties and Halekulani Corporation. She teaches a Hospitality Tourism course at University of Hawaiʻi and holds a Masters in Hospitality Management from Cornell.

Tim Peter
Tech and Ops

An award-winning digital marketing and technology leader, Tim has over 25 years of experience. He founded Tim Peter & Associates and previously led digital strategy for Wyndham Hotel Group and The Leading Hotels of the World. He also teaches digital marketing and strategy at Rutgers Business School.

John Neeley
Business Requirements

A senior Information Technology executive offering over 35 years of success in executing strategic and tactical strategies to promote organizational growth. He has extensive global leadership experience in Technology, Business Development, and Application Development with Outrigger Enterprises, Hawaiian Telephone, Bank of Hawaiʻi and Lockheed Martin.
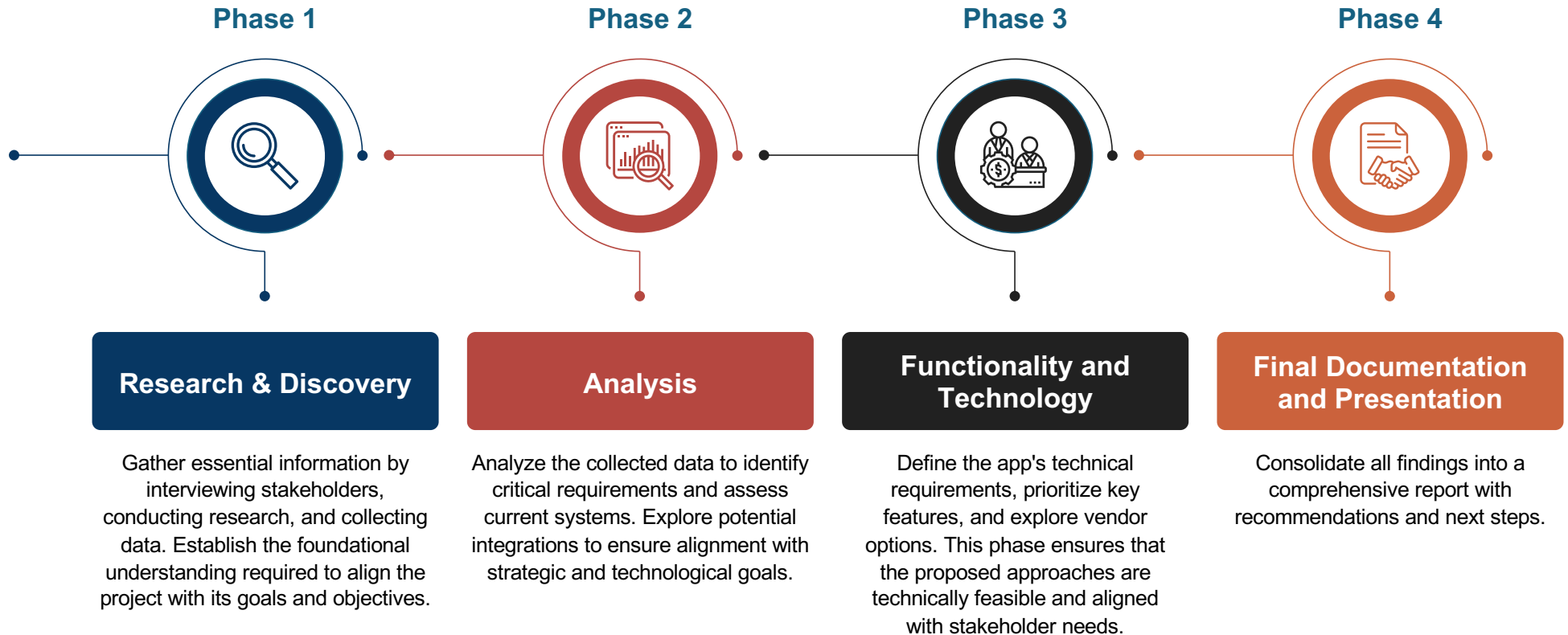
Dylan Wacksman
Project Coordinator & Research

A project manager at Sassato, Dylan brings experience in hospitality, with roles in social media, marketing, and front-of-house sales. He is a recent graduate of the University of Miami.

Sassato's four-phase process incorporates stakeholder input, thorough research, detailed analysis, and actionable recommendations.
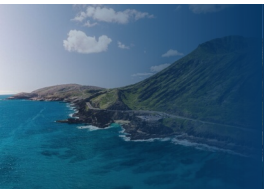
Phase 1	Phase 2	Phase 3	Phase 4
Research & Discovery	**Analysis**	**Functionality and Technology**	**Final Documentation and Presentation**
Gather essential information by interviewing stakeholders, conducting research, and collecting data. Establish the foundational understanding required to align the project with its goals and objectives.	Analyze the collected data to identify critical requirements and assess current systems. Explore potential integrations to ensure alignment with strategic and technological goals.	Define the app's technical requirements, prioritize key features, and explore vendor options. This phase ensures that the proposed approaches are technically feasible and aligned with stakeholder needs.	Consolidate all findings into a comprehensive report with recommendations and next steps.

Section 2

Executive Summary

The Hawai'i Tourism Authority (HTA) seeks to enhance visitor (and resident) experiences through a Smart Tourism app. This study evaluates the app's feasibility, focusing on aligning stakeholder priorities, identifying challenges, and providing actionable recommendations.

Key Insights: Process

✓ **Diverse Stakeholder Priorities Must Be Navigated**
Interviewing 72 stakeholders has revealed a lack of consensus, with priorities ranging from visitor management to cultural preservation. This underscores the challenge of aligning such diverse perspectives.

✓ **Clear Purpose will be Key to Strategic Focus**
The app's purpose remains unclear, and Hawaii's unique context requires a tailored approach. Without clear focus, its chances of success diminish.

✓ **Defining Success is Imperative**
Clear definitions of success (e.g., user adoption, behavioral changes, stakeholder satisfaction) and a realistic assessment of feasibility are essential to defining the approach.

✓ **Fragmented Efforts Undermine Collaboration and Progress**
Multiple state and local departments are pursuing independent "Smart Tourism" projects with little collaboration. This fragmentation risks duplicative efforts, inefficiencies, confusion for users, and turf battles.

✓ **Clear Governance and Ownership Ensure Accountability and Direction**
The importance of establishing a clear governance structure, likely a public-private partnership, is highlighted as a critical success factor to manage stakeholder input and operational accountability.

Key Insights: Build

✓ **Successful Apps Solve Specific Problems**
The benchmarking shows that apps with clear, targeted objectives, like making reservations or providing navigation, tend to be more successful than trying to be all things to all users.

✓ **Core Functionality Should be Prioritized**
The app's initial launch should focus on a small set of most relevant features that support destination management and enhance visitor experiences. A clear focus will drive adoption, and provide a strong foundation for future expansions.

✓ **Start Small, Test Iteratively, and Scale Strategically**
Leveraging existing platforms or proven technology to create a focused Minimum Marketable Product (MMP) is the most viable approach. This phased strategy minimizes risk, optimizes resources, and allows for scalable growth.

✓ **Consider Existing Systems and Evaluate Alternatives**
Existing tech and vendors like the GoHawaii App might be considered as a shortcut. Alternatives such as a progressive web app (PWA) or a responsive website, might be considered as well–depending on budget and customer preference.

✓ **High Marketing Costs Demand Focus**
Successful adoption will require significant investment in marketing and user engagement strategies. Without a clear and compelling value proposition, the app risks low adoption rates.

Way Forward

Proposed Approach	Key Success Drivers	Expected Benefits or Outcomes
• Identify a dedicated project leader and form a small, empowered steering committee to finalize core goals, define governance structures, and outline a phased approach for features, functionality, and budget. • Use this report to create a roadmap that prioritizes and aligns with project goals. Finalize the Business Requirements Document (BRD) to define core functionality and technical needs, then conduct a Request for Proposal (RFP) to select a cost-effective, scalable technology vendor. • Launch a Minimally Marketable Product (MMP) of the app to test core functionality, validate technical feasibility, and gather user feedback. Use insights from the pilot to address adoption challenges and refine the app before further investment.	• Establish a governance framework with clear roles, decision-making authority, and equitable stakeholder representation. Acknowledge that initial phases may not meet all stakeholder expectations but align efforts with overarching goals. Prioritize features based on overriding goals and best practices to maximize user engagement. • Actively engage with stakeholders managing competing or parallel technologies, such as DLNR's platforms, to identify integration opportunities. Leverage APIs or other solutions to create a seamless user experience while minimizing redundancy and respecting organizational autonomy. • Use the RFI/RFP process to identify a scalable and efficient technology partner that fits within budget constraints.	• Achieve alignment on objectives and gain stakeholder support, reducing potential conflicts during development and implementation. • Minimize risks related to low adoption by incorporating proven strategies for user engagement. • Ensure the app is both technically feasible and financially sustainable, increasing the likelihood of long-term success. • Position the destination app as a competitive tool in the tourism and public service sectors.

An app can streamline visitor management and promote sustainable tourism, but its success hinges on addressing key challenges and ensuring effective collaboration.

Strengths

- **Government Backing**: The app has the support of the state, which lends credibility and access to government resources.
- **Centralized Information**: A single platform can streamline tourism information, reducing confusion among visitors.
- **Alignment with Sustainable Tourism Goals**: The app can promote sustainable tourism practices by directing tourists to underutilized areas and reducing over-tourism in popular destinations.
- **Cultural Promotion**: The app can highlight authentic local culture, traditions, and lesser-known attractions, enhancing cultural preservation.
- **Integration with Existing Infrastructure**: Leveraging government services (e.g., parks, transportation, permits) creates a more seamless visitor experience.

Weaknesses

- **Lengthy Decision-Making:** Government-led initiatives often involve extended decision-making timelines and slower execution.
- **Conservative Approach:** Government projects may not always match the agility and innovation typically seen in private-sector initiatives.
- **High Costs**: Building a fully integrated app or custom-built solution may require significant investment, both initially and ongoing.
- **Monetization Challenges**: Determining a sustainable business model while maintaining a public-service orientation may create conflicts.
- **Complex Stakeholder Management**: With multiple stakeholders (e.g., government, local businesses, residents), aligning objectives may prove difficult.

Opportunities

- **Improved Visitor Management**: The app can help balance tourism flows by providing real-time information and nudging visitors towards less crowded areas or events.
- **Economic Impact**: Potential partnerships with local businesses (e.g., hotels, restaurants, tour operators) could boost the local economy.
- **Data-Driven Insights**: The app can collect valuable data on visitor behavior, helping the government make informed tourism policy decisions.
- **Sustainability Messaging**: The app can play a crucial role in promoting responsible tourism, such as educating visitors about environmental practices and cultural respect.
- **Partnerships with Technology Providers**: Collaboration with private tech companies could bring cutting-edge solutions (e.g., AI, IoT) to enhance visitor experiences.

Threats

- **Technological Challenges**: Integrating with existing systems, handling large-scale user loads, or maintaining a reliable app infrastructure could pose difficulties.
- **Competing Private-Sector apps**: There are already many third-party apps targeting Hawai'i's tourism market, potentially limiting the app's adoption.
- **Privacy Concerns**: Gathering data on visitors could raise privacy issues or public pushback, especially if the app lacks transparent policies.
- **Over Tourism Management**: If not managed properly, the app could inadvertently lead to unintended consequences.
- **Changing Tourism Patterns**: Economic downturns or global events (like pandemics) could reduce tourism, impacting the relevance and success of the app.

Stakeholder Analysis

A list of 102 individuals was compiled as part of the scope to represent a broad spectrum of stakeholders, categorized into Tourism, Government, Community Suppliers, and Apps & Technology.
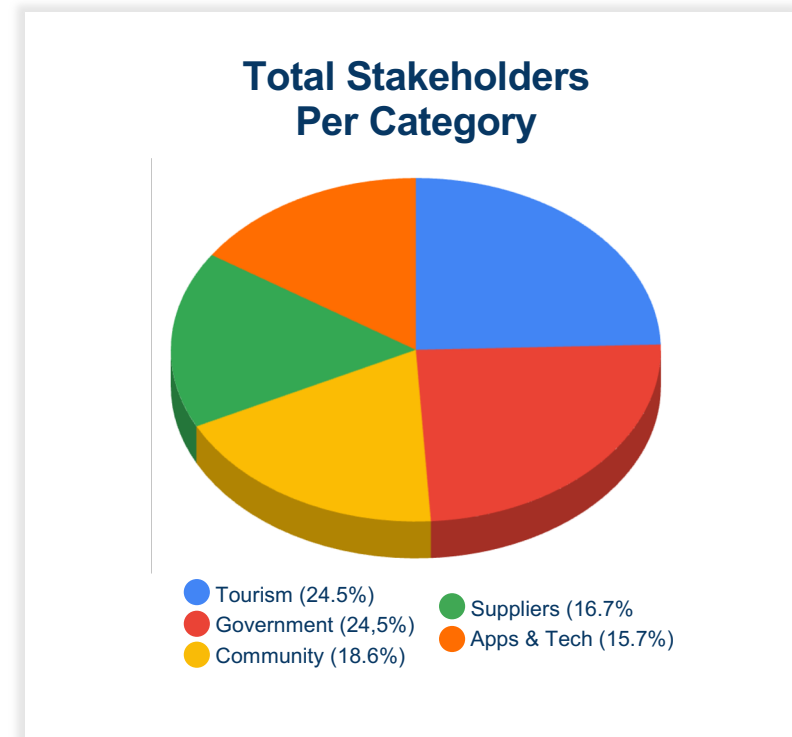
Tourism	25
HTA	15
Tourism Industry	10

Government	25
Legislature	7
State Agencies/Dept's	8
C&C and Federal	8
Safety	2

Community	19
Community Voices	12
Agritourism	2
Arts	2
Business	3

Suppliers	17
Hotel	4
F&B	3
Retail	2
Cruise	3
Attraction	3
Ground Transport	1
Media	1

Apps & Tech	16
Apps & Tech	16

Total	102

Total Stakeholders Per Category

- Tourism (24.5%)
- Government (24,5%)
- Community (18.6%)
- Suppliers (16.7%
- Apps & Tech (15.7%)

Of the 102 stakeholders identified by HTA and Kilohana, 72 were interviewed, while the remaining stakeholders did not respond to outreach efforts or were unavailable during the interview period.

	Total Stakeholders Per Category	Completed Interviews by Category	Completed Interview Percentage	Stakeholders that Completed the Survey	Percentage of Stakeholders Were interviewed who also Completed Survey
Tourism	25	17	68.00%	12	70.59%
Government	25	19	76.00%	17	89.47%
Community	19	12	63.16%	11	91.67%
Suppliers	17	13	76.47%	12	92.31%
Apps & Tech	16	11	68.75%	9	81.82%
Total	102	72	70.59%	61	84.72%

Interviews were conducted from October 15, 2024 through December 3, 2024.

- **Seventy-two (72) stakeholders were interviewed.**
- **The outstanding stakeholders who were not interviewed either did not respond to requests or declined to participate.**

Note: *The following section contains a summary of the stakeholder insights and results derived from the interviews conducted. Interview questions, full results and data insights are provided in Appendix section 3 and Appendix 1 respectively.*

Interview Process: Interviews were conducted and analyzed with questions categorized into seven sections along with a set of questions by specific area of business or expertise.

Upon completion of the Pre-Call Survey, stakeholders received the interview questions in advance. Interviews, ranging from 45 to 60 minutes, were scheduled and organized by industry sector. Each interview was assigned to consultants based on their area of expertise to ensure relevant insights were captured.

Interview Process

| Interviewer introduction | Set of approved interview questions plus industry specific questions, as applicable | All interviews were recorded for note-taking purposes and data analysis | Thematic analysis template was used to categorize interview responses for each interview | Interviewer notes and perspective on "tone and overall feel" were summarized at end of each interview | Stand out quotes, highlights, or follow–up opportunities were also noted |

Interview questions were categorized by section:

- Strategic Alignment and Vision
- Desired Features and Functionalities
- Governance and Ownership
- Business Model and Monetization
- Integration with Existing Systems
- Risks, Challenges, and Opportunities
- Stakeholder Collaboration
- Additional Questions related to each area of knowledge, as applicable

Prior to the interviews, 85% of interviewed stakeholders completed a Pre-Call Survey showing moderate familiarity with the Smart Tourism app concept and a generally positive reception.

Stakeholders were asked to complete a Pre-Call Survey. The objective of the Pre-Call Survey was primarily to obtain broad quantitative data and select demographic data. Sixty-one (61) stakeholders completed the survey which prepared stakeholders prior to the interview by providing basic context along with a follow up list of the interview questions to be covered.

Highlights from the Pre-Call Survey results include:

- 86.8% of respondents were at least somewhat familiar with the Smart Tourism concept.
- 21.3% of respondents were not familiar at all with the proposal to create the app.
- 54% of respondents had participated in some kind of discussion regarding tourism-related digital platforms.
- The top-ranked app functionalities were Supplier Information (e.g., air, car, hotels, activities) and Data from Third-Party Sites (e.g., surf reports, train schedules), with average ratings of 3.93 and 3.92, respectively, on a 1-to-6 importance scale (6 being the highest).
- The top concerns about the app's development were User Adoption, Cost/Funding, and Cultural Representation.
- Overall, the majority of respondents believe that development of a centralized app is important and would align with Hawai'i's broader tourism and economic goals.

How well do you think this app could align with Hawai'i's broader tourism and economic development goals?

- ● Moderate Alignment (27.9%)
- ● Perfect Alignment (32.8%%)
- ● Strong Alignment (29.5%)
- ● Poor Alignment (8.2%)
- ● Does Not Align at All (1.6%)
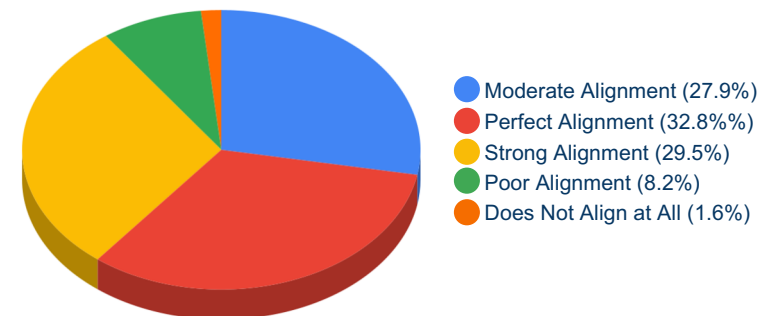
> " *This app should encourage sustainability in all aspects: for example, directing visitors away from spots that are in the moment or seasonally over-touristed or have current real-time issues, such as infrastructure failure, weather or accessibility. The app could steer people not only to different places, but incentivize different ways to get there other than the rental car.*
>
> *– Government Stakeholder*

The interview results and response analysis organically evolved into six key categories, highlighting a wide range of perspectives on the app's objectives, features, and target audience.

Interview analysis naturally evolved into six key categories

1. Reservation System and Visitor Management

2. Real-Time Information and Alerts

3. Responsible Tourism and Cultural Awareness

4. System Integration, Design and Scalability

5. Marketing and User Adoption

6. Monetization and Governance

- The strategic alignment and vision questions established stakeholders' initial views on the app's core objectives, defining their understanding of "Smart Tourism," identifying the target market, and exploring ways to engage residents.
- Stakeholder perspectives varied widely on the app's objectives, features, and audience. About 83% aligned with destination management goals, including crowd control, cultural education, local benefits, and natural resource protection.
- About 27% of responses highlighted enhancing visitor experience, convenience, and consolidation, while 20% emphasized real-time safety alerts and accurate information as core features.

Stakeholder opinions varied on the scope of reservation and visitor management systems, ranging from integration with state and county park systems to personalized wayfinding and trip planning.

(1) Reservation System and Visitor Management

Opinions regarding reservation systems varied from integrating state and county park systems to centralized booking platforms for all tourism related attractions and sites in Hawai'i, public and private.

Variations of the reservation system feature primarily focused on state and county parks and properties, starting with a priority on reservations only, followed by these enhancements:

- Federal bookings or links
- Public related organizations such as the Zoo
- Private attractions, e.g., Bishop Museum, Polynesian Cultural Center, etc.
- Private businesses, small and large, including activities and restaurants

All of the above were mentioned with and without fees and payment options.

- Resident access and exclusive features were popular with priority, free or discounted (kama'āina) access.

- The concept of personalized wayfinding or trip planning and custom itineraries was frequently cited, emphasizing:

  – *"Know before you go" guidance*: Including tools and maps, e.g., proximity messaging, parking availability, best times to visit, heat maps, transportation integration, etc.

  – *Personalized trip planning and custom itineraries:* Tailored suggestions based on user preferences and location, ability to build plans that optimize daily activities based on current conditions, and utilizing recommendations based on data and preferences.

  – Interactive or AI generated itineraries utilizing geolocation and mapping, navigation, and directions.

> 66 The ability to assess and control the flow of people across the system at any time is key. This means managing who is at Diamond Head, Hanauma Bay, or Hā'ena, and ensuring that the burden on resources is alleviated.
>
> *– Tourism Stakeholder*

Stakeholders identified real-time information for emergency alerts and managing the flow of visitors and residents as a top priority in the interviews. Interview results also highlighted multiple benefits for both people and the environment.

② Real-Time Information and Alerts

Real-time information and alerts naturally overlapped a bit with the reservation system, especially the wayfinding category. Responses in this category focused on both alerts and redirecting visitor flow in real-time, with beneficial information for both visitors and residents.

- Real-time Alerts and Notifications
  - Emergency management
  - State and local emergency notifications
  - What to do in case of natural disasters, hurricanes, wildfires, etc.
  - Weather, public safety, and emergencies
- Real-time Updates
  - Push notifications for transportation disruption, traffic conditions, road closures, events
  - High surf warnings and ocean safety
  - Safety and security concerns, up-to-date information on activity safety, dangerous conditions, e.g. beaches, hiking, etc.

- Preparedness, Maps
  - Protocols & safety guidelines
  - Evacuation routes and maps
- Flow Management – Redirect in real-time, this concept would be the active function of managing the flow of visitors and residents in areas, events, and attractions to reduce the negative impacts of crowds on visitors, communities and environment.
  - Parking availability, congestion, and traffic conditions
  - Managing crowd control for popular attractions, state and county parks
  - Alternative destination rerouting and suggestions
  - Use of data and analytics to disperse visitors across different areas and reduce congestion
  - Reservations for parking spots, attractions

> 66 My top recommendation is to prioritize safety as a well-defined objective. The app should serve both residents and visitors to maximize its impact, offering real-time alerts and safety information. By integrating geofencing, QR codes, and videos from lifeguards and cultural experts, we can better communicate known risks—something even locals might not always recognize.
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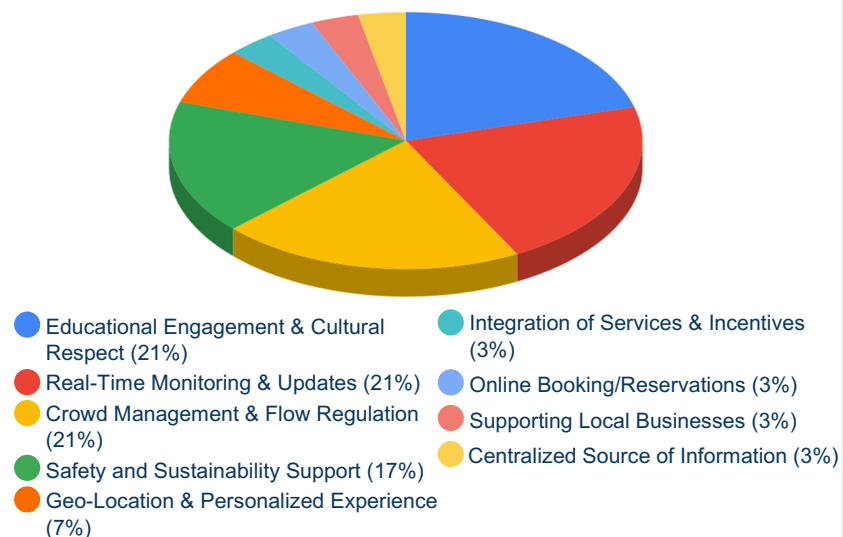> *– Government Stakeholder*

Interview results indicated that responsible tourism and cultural awareness should cover up-to-date, comprehensive information to guide visitors on respectful behavior while enhancing their experience and encouraging positive community engagement.

③ Responsible Tourism and Cultural Awareness

This category covered information related to education and community engagement, incorporated to promote responsible tourism and cultural awareness; guiding visitors toward respectful behavior while enhancing the visitor experience.

- Informational / Educational
  - Centralized, accurate, reliable, up-to-date, comprehensive information, schedules and listings
  - Points of interest, reservations, local offerings
  - Details on local culture, environment and safety
  - Provide community calendars and activities
  - Include island-specific details
  - Promotion of local, small businesses
  - Highlight alternative destinations to manage visitor impact
  - Provide information on mobility hubs and transportation options such as the North Shore historic trail
- Environmental Sustainability - Promote sustainable tourism practices, display positive impact of users' actions on the environment

- Cultural Awareness and Visitor Guidelines
  - Provide information about history, culture, including sensitive areas, cultural significance
  - Bring awareness to appropriate and respectful behavior
  - Educate visitors about local culture, regulations and sustainable practices – enhance the visitor experience
  - Utilize videos, checklists, QR codes and other content to promote responsible tourism
  - Provide information to both visitors and residents
  - Engage visitors through storytelling of history, culture and traditions
  - Include guides for proper etiquette and 'olelo – place names with pronunciation guides
- Community Engagement – Integrate with local activities, opportunities for local businesses, encourage residents to contribute content and stories, provide information about local nonprofits and organizations to encourage volunteer opportunities

All Stakeholders: Features and Functionalities to Support "Smart Tourism"

- ● Educational Engagement & Cultural Respect (21%)
- ● Real-Time Monitoring & Updates (21%)
- ● Crowd Management & Flow Regulation (21%)
- ● Safety and Sustainability Support (17%)
- ● Geo-Location & Personalized Experience (7%)
- ● Integration of Services & Incentives (3%)
- ● Online Booking/Reservations (3%)
- ● Supporting Local Businesses (3%)
- ● Centralized Source of Information (3%)

> " We need to build education within the app so that people understand that the land needs to rejuvenate itself.
> — *Tourism Stakeholder*

Stakeholders indicated that system integration with existing platforms should be designed to be scalable, while maintaining focus on an easy to use, intuitive user experience that is a trusted, up-to-date secure source of information.

(4) System Integration, Design and Scalability

The following summarizes the responses regarding features and functionalities related to systems or technology. Seamless integration with existing platforms and the user experience were most commonly prioritized as the highest priority.

- Seamless integration with existing platforms - Most stakeholders advocated utilizing existing technology and integrating systems rather than building new systems or creating new technology. Integration was recommended for existing public and private platforms, apps and data sources, including:
  - Public federal, state, county platforms, e.g. HVCB, DLNR
  - Traffic and transportation platforms such as Go Akamai and Honolulu DOT, mobility options
  - Reservation systems and activity bookings
- Multilingual support - Provide access and features in multiple languages
- Multimodal access - Mobile and web-based

> " Yes, Swiss Army Knife is great, but I don't want to get distracted. I want real wins for the state, local people, and natural resources.
> — *Supplier Stakeholder*

- Offline functionality – Ability to access key information without internet connectivity
- Ease of use and easy to navigate – Simple, modern and intuitive, easy to use interface for both visitors and residents
- Real-time feedback – Utilize Q&As and chatbots, mechanisms for feedback on the app and the user experience
- Intuitive user experience – AI and AR powered to enhance visitor experience and allow for intelligent trip planning
- Trusted source / security – Secure, user validation and identity, trusted information source with accurate and up-to-date content
- Iterative development and adaptability – Build with flexibility, ability to scale, test, update and integrate new technologies over time with realistic approach
- Data and analytics – Data collection and activity tracking to allow for data driven decisions, aggregate data on visitor behavior and preferences to inform destination management strategies and provide metrics on visitor impacts to support conservation and management efforts
- Integrate forms and surveys – Digitize and integrate existing visitor arrival forms like the Agricultural Form

Interview participants highlighted that app marketing should focus on encouraging adoption by both visitors and residents through clear, targeted messaging and branding that effectively conveys the app's value and purpose.

(5) Marketing and User Adoption

Marketing of the app to both visitors and residents was emphasized in the majority of the interviews. One of the most emphatic messages was to ensure crystal clear, targeted messaging and branding, ensuring the targeted users understand the app's value and purpose.

- **Public-private partnerships:** Leveraging channels such as the airlines, hotels, car rental companies, booking sites and other travel companies was deemed necessary to promote the app and drive usage.

- **Resident engagement:** For residents, the use of discounts and promotions as well as finding ways to provide a centralized place for important, usable information for day-to-day use might provide higher resident user adoption. Providing engaging ways to interact with the app such as reviews, feedback, making recommendations and storytelling would possibly increase resident adoption.

- **Social media:** Leverage social media for app promotion and utilize influencers to promote the app.

- **Support local businesses:** Provide a platform, directory for local businesses and organizations to share information and promotions. Promote buy local and reinvestment in local communities; encourage showcase of local products, local benefits from visitors buying made in Hawai'i products.

- **Discounts and Incentives:** Offer discounts, incentives, and rewards for businesses and users with deals for local businesses, attractions and activities.

- **Gamification:** Utilize scavenger hunts, digital badges, challenges, and other gamified experiences.

All Stakeholders: Intended Primary Audience
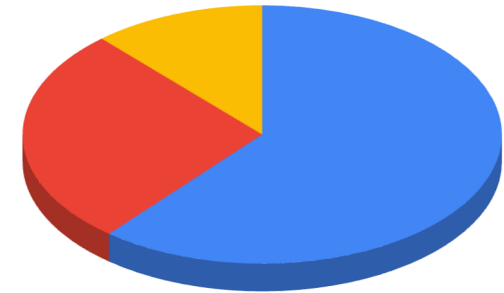
- ● Dual Audience Approach (61%)
- ● Visitor-Centric Approach (27%)
- ● Residents as Secondary Audience (12%)

> " The number one risk is that it becomes a marketing tool and not a destination management tool.
> — *Community Stakeholder*

A public-private partnership was often cited in the interviews as being necessary to help fund and sustain development and staffing needs.

(6) Monetization and Governance

Stakeholders recommended a model that combined public and private interests, or a hybrid model. The need to determine appropriate ownership and accountability would be based on both public and private funding, requiring collaboration and combining government funding and ownership with private sector expertise to ensure longer term sustainability.

Most stakeholders agreed on the necessity of some kind of monetization to support the app's long-term development and maintenance, fund additional personnel for customer service, and staff popular attractions. Potential monetization strategies mentioned included:

- Admission fees to state and county parks and facilities (note: parks with current reservation systems would likely be opposed to this, as current funds are used for the parks)
- Fees or subscription features, optional paid features
- Advertising revenue
- Collecting commissions on sales
- Percentage of TAT revenue or tax revenue
- Sponsorships
- Revenue collection using dynamic pricing with adjustments based on demand and seasonality

> " My gut cautions against building anything new from a state-run perspective. I think that's what private industry is for, and it's more often than not done better and more efficiently, you know, within the competitive market.
>
> *– Supplier Stakeholder*

All Stakeholders: Preferred Ownership and Oversight of the App

- ● Public-Private Partnership (35%)
- ● Hawai'i Tourism Authority (HTA) Oversight (27%) |
- ● Concerns About Sole Government Control (11%)
- ● Collaborative Oversight (HTA, HVCB, Kilohana) (10%)
- ● Private Sector (8%)
- ● Government Agency with Contracted Management (5%)
- ● CNHA (3%).
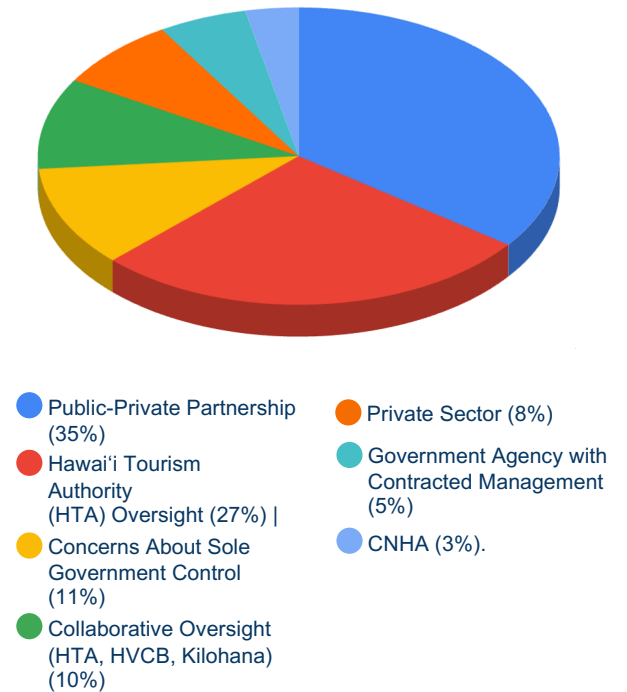
Key Takeaways: Stakeholder Analysis

While there were areas of agreement, differences in interview responses made it challenging to align on the Smart Tourism app's core objective and primary purpose.

✅ **Stakeholder opinions varied widely on defining terms and prioritizing objectives, this was influenced by their roles and specific industry contexts.**

- The definition of "visitor" also was broadened by some to include residents visiting neighbor islands, or sites and attractions on their home islands that they had not yet visited.
- Industry or area of expertise seemed to have some influence on defining the core objective and desired key features and functionalities. This was evident in the analysis of responses by category.
- Many stakeholders chose to respond as the identified stakeholder/category expert, but also provided answers that reflected their own perspectives as Hawaiʻi residents.

✅ **Across the major categories, many responses regarding app priorities overlapped in category or concept.**

- The definition of destination management or "Smart Tourism" lacks clarity among many stakeholders.
- There is confusion regarding the interchangeability and branding of destination management as "Smart Tourism."
- Correspondingly, this lack of clarity also causes confusion regarding the goals for a consolidated app for Hawaiʻi.
- Opinions differ on public-private roles, development, and governance of the proposed app.
- The app's scope varied widely, ranging from narrowly focused views to everything, no limits.
- The app's target audience remains undefined: visitors, residents, or both.

> " Cooks in the kitchen—too many. Trying to really understand what is the ultimate objective, and how do we measure success.
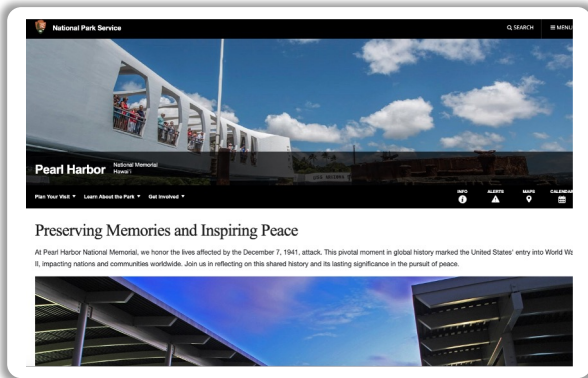>
> *– Supplier Stakeholder*

Section 4

Current Landscape Hawai'i Systems

Many stakeholder interviews reveal a persistent issue: Hawai'i's tourism information is plentiful but fragmented across multiple sources and sometimes incorrect, underscoring the potential need for a cohesive, centralized platform to serve visitors.
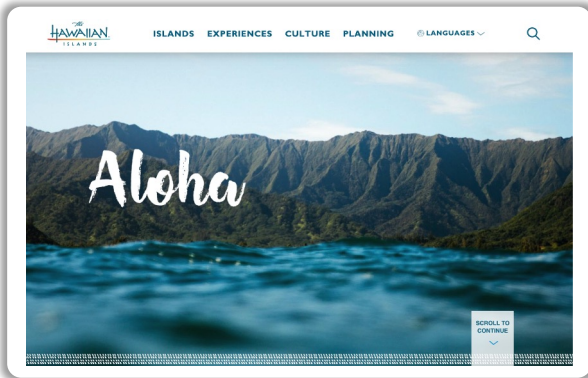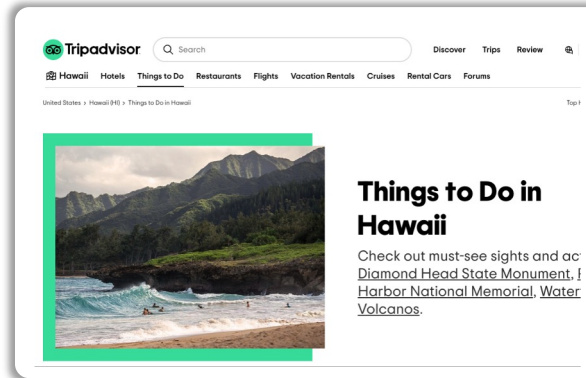
> " I think we suffer from the opposite of not enough information. We have way too much information, and it's, sometimes contradictory, sometimes hard to understand. So to have some place where visitors can go, where it's easy to access and understand, is really important.
>
> – Tourism Stakeholder

Centralizing Hawai'i's tourism information into a smart app is complicated by a variety of factors, led by disparate sources of information.

The includes disparate sources, lack of current collaboration among entities and the overwhelming volume of content needed to upkeep a reliable and up-to-date resource.

Key Challenges

Disparate Information Sources	No central "source of truth" currently exists, with information scattered across various platforms, making it challenging for visitors to find the most accurate and up-to-date resources.
Lack of Coordination Among Organizations	Many organizations are working towards similar Smart Tourism goals independently, at different development stages, leading to potential duplication and inefficiencies.
High Maintenance Needs	With so much information to manage, each organization will need to take responsibility for keeping their content updated, ensuring that a centralized platform remains a trustworthy, go-to resource.
Reliance on Social Media	Currently, visitors often rely on social media due to the abundance of resources for information, creating an additional risk that they are exposed to outdated, inaccurate, or even unsafe visitor information.
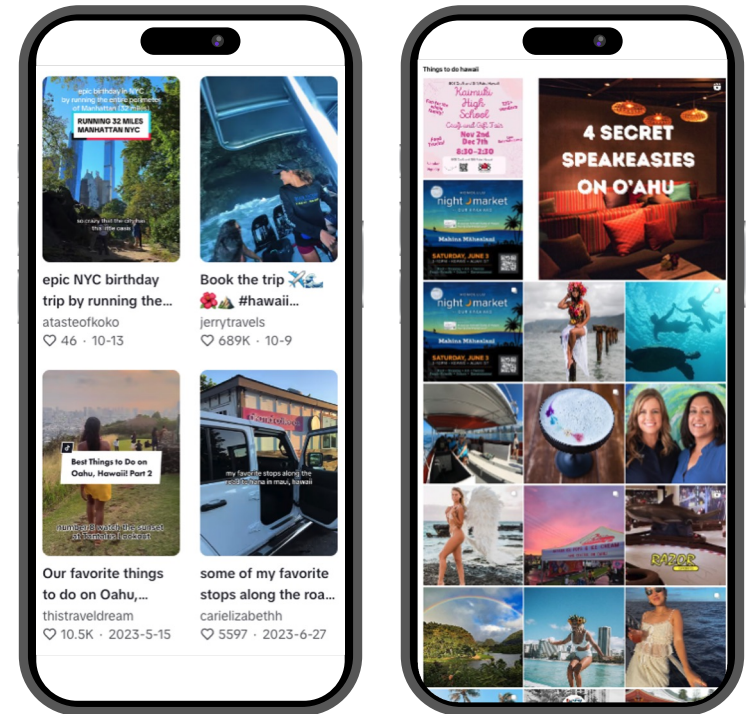
While disparate sources may already be contributing to visitor information overload, the creation of a new smart app risks compounding the issue rather than resolving it.

Without effective deployment and integrations with existing parallel initiatives this could provide unclear or conflicting information–an issue with real implications for visitor safety and experience.

| Risk of Redundancy	Visitor Safety Concerns	User Experience Impacted	Strategic Coordination
Introducing a new app without integrating existing resources could duplicate efforts and fail to streamline information delivery complicating an already existing issue where visitors are gathering information from disparate sources.	Without a single platform for emergency alerts, visitors may miss critical information during crises like natural disasters or severe weather events. This can lead to confusion, delayed evacuations, or unsafe situations, as tourists may not know where to find the latest official guidance.	Disjointed information can lead to frustration, poor decision-making, and a less enjoyable visit, impacting Hawai'i's reputation as a safe, visitor-friendly destination.	Successful deployment of a smart app hinges on seamless integration with trusted platforms (e.g., official tourism sites, transportation services, safety alerts) to provide a unified, accurate source of information. Collaboration with existing initiatives and stakeholders will ensure the app complements rather than competes with current resources.

In addition to an abundance of existing information, our research has revealed that there are also a number of "Smart Tourism" initiatives currently in existence or underway, with little or no integration with other efforts.
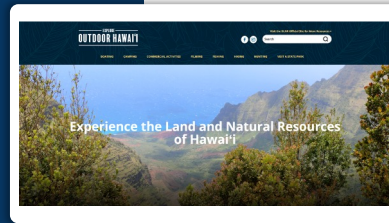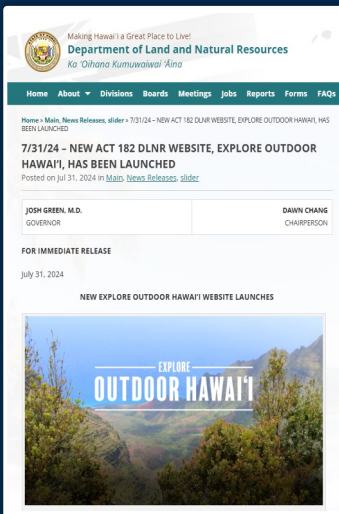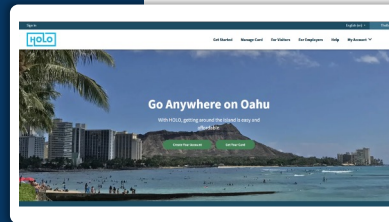

State
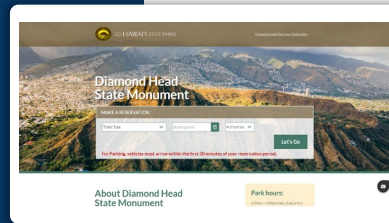
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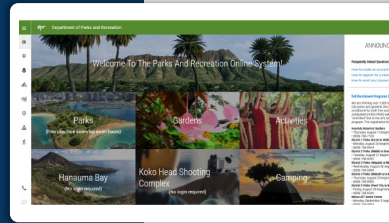
C&C

C&C

> " I see a lot of redundant efforts all aiming for the same outcome. My concern is that, instead of streamlining and creating efficiency, we may end up confusing visitors with competing mobile apps serving similar purposes. The biggest issue is the lack of a single coordinating entity to oversee these independent initiatives, all of which ultimately aim to improve visitor industry management.
>
> – Government Stakeholder

For example, DLNR recently launched its Outdoor Hawaiʻi website and has plans for a dedicated app.

However, this independent multi-year approach raises questions on how the state can best integrate a new app with broader Smart Tourism initiatives.

DLNR's "Outdoor Hawaiʻi" Initiative is Just Beginning	• The Hawaiʻi Department of Land and Natural Resources (DLNR) has launched phase one of its "Outdoor Hawaiʻi" initiative with a website providing recreation-related information. • This phase includes essential resources but lacks integration with other state tourism or visitor resources.
Already Identified app Development Partners and Platform	• DLNR has already partnered with **Tyler Technologies** and selected the **OuterSpatial** platform to develop a dedicated outdoor recreation app. • OuterSpatial offers a feature-rich experience designed for outdoor recreation but is being developed independently of other Hawaiʻi tourism platforms, raising potential integration challenges.
Challenges in Information Integration	• The "Outdoor Hawaiʻi" initiative has potential overlaps with the proposed Smart Tourism app, highlighting the importance of avoiding duplicated information and creating seamless data flow. • Ensuring that users can access DLNR permitting and application features through a central Smart Tourism platform could enhance the visitor experience.
Long-Term Multi-year Effort with Unique Permitting Goals	• DLNR's initiative is a multiyear project aimed at streamlining the application and permitting experience, with features like real-time updates, outdoor guides, and permitting tools. • For the smart app to succeed, it will need to incorporate these efforts effectively, allowing users a comprehensive experience without navigating multiple platforms.

> " Explore Outdoor Hawaiʻi is a one-stop user-friendly website designed to help residents, visitors, and commercial operators find and apply for permits, licenses and reservations. The site is a great way to virtually explore the unique and varied cultural and natural resources of Hawaiʻi, including relevant information about respecting our cultural sites, pono fishing practices, and permits that are required for commercial operations."
>
> *— DLNR Website*

The Department of Transportation is also currently developing a new airport wayfinding app that aims to improve traveler navigation as they arrive and depart the state.

Airport Wayfinding app in Development

- The Department of Transportation (DOT) is currently developing an app focused on airport navigation to meet travelers' immediate needs upon arrival and departure.

- This app is envisioned to provide travelers with real-time wayfinding, including proximity indicators, estimated walking times, and clickable options for locating amenities like restaurants and terminals.

Phased Rollout of Core Features

- The DOT plans to release a basic version of the app, focusing first on core functionality to test the technology, with an initial launch planned for December 2024.

- Current features include map-based wayfinding that shows travelers their location within the airport and helps them navigate key locations like dining options and check-in counters.

Multiple Stakeholders emphasized integrating the Department of Agriculture's visitor form as a way to enhance the smart app's utility and to drive downloads.

However, our research revealed this is already in the process of being piloted with limited airline partners.

With each interview, we seemed to uncover different ongoing efforts that would potentially overlap or integrate with a smart app initiative.

- C&C Reservations Website
- State Reservations Website
- Federal Reservation Website
- Outdoor Hawai'i from DLNR
- Trails App from DLNR

- GoHawai'i Website
- GoHawai'i App
- DaBus2 App
- Digitization of the Agriculture forms
- HNL.INFO App by C&C of Honolulu

- Airport Wayfinding
- C&C in discussions to create an App
- Symphony Dashboard by Azira on HTA Website
- Implementation of HOLO Open Payment and API
- Vendor engagement: Alqimi, Go Merit Outerspatial, True Omni, and more

*Many initiatives were mentioned during interviews, this is not an exhaustive list.

Some of the most popular visitor destinations are under federal oversight. Puʻuloa (Pearl Harbor) and Haleakalā frequently update reservation and weather information on their websites, yet many visitors still arrive unprepared. Integrating these resources into a centralized app could enhance visitor readiness and improve their overall experience.

Recreation.gov

- Popular destinations like Puʻuloa (Pearl Harbor) and Haleakalā are managed independently through Recreation.gov for reservations and site-specific updates.

- These sites are vital for visitors to access necessary booking and planning information as the **parks are not allowed to manage reservations outside of this platform**.

Challenges with Current Visitor Awareness

- Despite efforts to provide real-time updates on availability, weather conditions, and entry requirements, many visitors still arrive unprepared.

- This lack of awareness can lead to confusion, missed opportunities, and overcrowding at certain times.

Need for Seamless Integration

- Including reservation and informational links to these key sites within a centralized tourism app would help visitors easily access essential details.

- A unified smart app could improve visitor readiness, providing streamlined access to up-to-date information directly from the primary sources.

Existing websites and reservation systems need to be evaluated for integration opportunities to streamline the user experience.

Park/Site/Organization Name	Purpose	Reservation Type	Agency Responsible for Site	Island
City and County of Honolulu Camping Reservations	Permit	Camping permit	City and County of Honolulu	O'ahu
Hanauma Bay Nature Preserve	Reservation	Entry for non-residents	City and County of Honolulu	O'ahu
Nāpali Coast State Wilderness Park	Permit	Camping permit for hiking beyond Hanakāpīʻai Valley	Hawaiʻi DLNR	Kauaʻi
State of Hawaiʻi Camping Reservations	Permit	Camping permit	Hawaiʻi DLNR	State of Hawaiʻi
Explore Outdoor Oʻahu	Reservation	Entry for residents and non residents	Hawaiʻi DLNR	State of Hawaiʻi
Diamond Head State Monument	Reservation	Entry for non-residents	Hawaiʻi DLNR	O'ahu
Hāʻena State Park	Reservation	Entry and parking for non-residents	Hawaiʻi DLNR	Kauaʻi
Wai'ānapanapa State Park	Reservation	Entry and parking for non-residents	Hawaiʻi DLNR	Maui
ʻĪao Valley State Monument	Reservation	Entry and parking for non-residents	Hawaiʻi DLNR	Maui
Kalaupapa National Historical Park	Permit	No current entries permitted	National Park Service (Federal)	Moloka'i
Ford Island Bus Tour	Reservation	Entry for residents and non residents	National Park Service (Federal)	O'ahu
USS Arizona Memorial Programs	Reservation	Entry for residents and non residents	National Park Service (Federal)	O'ahu
Haleakalā National Park	Reservation	Entry for residents and non residents	National Park Service (Federal)	Maui
Pearl Harbor National Memorial	Reservation	Entry for residents and non residents	National Park Service (Federal)	O'ahu
Kīlauea Point National Wildlife Refuge	Reservation	Entry for residents and non residents	U.S. Fish and Wildlife Service	State of Hawaiʻi
Lyon Arboretum	Reservation	Entry for residents and non residents	University of Hawaiʻi	O'ahu
Waikīkī Aquarium	Reservation	Entry for residents and non residents	University of Hawaiʻi	O'ahu
Queen Emma Summer Palace	Reservation	Entry for residents and non residents	Daughters of Hawaiʻi - (Non-Profit Organization)	O'ahu
Waimea Valley	Reservation	Entry for residents and non residents	Hi'ipaka LLC - (Non-Profit Organization)	O'ahu
ʻIolani Palace	Reservation	Entry for residents and non residents	The Friends of ʻIolani Palace - (Non-Profit Organization)	O'ahu
Kualoa Ranch Private Nature Reserve	Reservation	Entry for residents and non residents	The Morgan Family - (Privately Owned)	O'ahu

Integrating with multiple third-party partners will be challenging and can also lead to significant time and cost overruns.

Government vs. Private Platform Integrations

- Integrating with government platforms often involves navigating complex regulations, slower approval processes, and stricter data security protocols, which can lead to delays.
- Private platform integrations, while generally more flexible, may require negotiation of licensing fees or adherence to proprietary standards, which can drive up costs.

Cost and Maintenance Challenges of Recreating vs. Integrating Existing Features

- Recreating functionality that already exists in other platforms is not only time-consuming but also costly, especially when it involves replicating complex systems like reservations or real-time updates.
- Integrating existing systems reduces the need for redundant development, but ongoing coordination with third parties is required to ensure features remain functional and up-to-date.

Risk of Cost Overruns and Delays in Multi-Partner Projects

- Working with multiple partners often results in coordination challenges, which can lead to unexpected time and cost overruns due to delays in data sharing, updates, or feature modifications.
- Each third-party integration requires unique resource allocation for troubleshooting, upgrades, and compliance, making the project management process complex and resource-intensive.

Key Takeaways: Opportunities for Collaborative Smart Tourism

☑ **Centralization is Critical:** Stakeholder feedback highlights the need for a cohesive platform to unify fragmented tourism information, improving visitor experience and safety.

☑ **Integration with Existing Efforts:** Multiple active projects, such as DLNR's Outdoor Hawaiʻi website and the Department of Transportation's airport wayfinding app, underscore the importance of aligning with parallel initiatives.

☑ **Leveraging Existing Processes:** Incorporating tools like the Department of Agriculture's visitor form presents a valuable opportunity to enhance utility and drive app downloads.

☑ **Balancing Complexity and Collaboration:** The sheer volume of content, lack of collaboration among partners, and diverse project timelines pose significant challenges for effective implementation.

☑ **Risk of Redundancy:** Without strategic alignment and effective deployment, the app could exacerbate existing confusion, rather than resolving it, with implications for visitor readiness and overall satisfaction.

> "
> Some operators, especially smaller businesses and those on neighbor islands, may lack the resources, funding, or experience to implement a reservation system. A unified app could address this challenge by offering an accessible reservation solution for those willing to join. This collective approach could also ease the transition for operators hesitant to adopt or expand a reservation system, reducing potential pushback and enabling more effective visitor management.
>
> *– Government Stakeholder*

Section 5A

Benchmarking & Best Practices: Hawai'i

Sassato conducted a comprehensive analysis of existing tourism related apps and platforms both in and out of the state and focused on analyzing key features, business models, and user engagement metrics.

Keyword Research	Refinement	Analysis	Findings

Keyword Research

We began by using a set of targeted keywords (e.g., "Hawai'i tourism app," "Hawai'i travel guide") and adjusted them for neighbor islands. In addition, we employed specific terms relevant to Destination Marketing Organizations (DMOs) to refine our search for official tourism apps.

DMO Keywords: Tourism Board, Tourism Authority, Visitor Bureau, Tourism Council, Destination Marketing Office, Travel Bureau, Travel Authority, Tourism Department, Tourist Information Center, Tourism Ministry, Travel Commission.

Refinement

Due to the large number of for-profit apps, distinguishing between DMO and commercial apps required further analysis.

Top 200 Travel apps: To refine the process, we reviewed the top 200 travel apps across the Google Play Store and Apple App Store. This allowed us to focus on apps that had proven success, particularly in user engagement and reviews.

Key app Sectors: Our research highlighted two sectors where "super-apps" have shown the most success:

- **Cruise Lines**
- **Amusement Parks**

Analysis

1. **App Analysis Criteria**: We cataloged each app using specific criteria:

   - **App Name** and **Links** (Google Play, App Store)
   - **Purpose of the app**
   - **Business Model**
   - **Number of Downloads** (Google Play)
   - **Number of Reviews** (app Store) and **Star Ratings**
   - **App Ownership**
   - **Notes on app functionality or standout features**

Findings

App Breakdown: From this research, we identified 221 apps:

1. 143 Government-funded apps
2. 150 DMO apps
3. 3 Cruise ship apps
4. 6 Amusement park apps
5. The remaining apps were non-profits, privately owned city guides, or affiliate-model apps.

Hawaiʻi's current app market, spanning both public and private sector options, lacks high-impact solutions capable of meeting visitor expectations for an integrated Hawaiʻi app.

Research shows that only a few successful tourism apps currently serve Hawaiʻi, revealing a clear opportunity for an app that better addresses visitor needs.

40 apps available with enough data to be relevant.

The top downloaded on the Google Store is DaBus2 and Hawaiʻi News Now (@244K)

The highest rated apps, with the most reviews on the Apple Store are:

- Marine Weather Forecast Pro (4.7 stars)
- Shaka Guide (4.9 Stars)
- Hawaiʻi News Now Weather (4.7 Stars)

Top Three Themes of Positive Feedback:

- User Experience
- Content Quality
- Local Engagement and Promotion

Top Three Themes in Negative Feedback

- Functionality
- User Experience
- Content Quality

The success of Hawai'i's existing tourism apps, which are predominantly privately owned, lies in providing focused solutions: meeting specific needs in tours & travel guides, weather, and navigation drives high ratings and user satisfaction.

Marine Weather Forecast Pro
Essential for water activities, this app's popularity provides accurate weather information for Hawai'i visitors and locals.

Shaka Guide | GPS Audio Tours
Comprehensive audio guide, offering a personalized tour experience across multiple Hawaiian islands.

Hawai'i News Now Weather
Local weather app's popularity indicates users desire for real-time, location-specific weather updates.

Road to Hana Maui GyPSy Guide
Specialized app's success shows the high demand for guided experiences on popular scenic routes.

Shaka Kaua'i Audio Tour Guide
Island-specific audio guide's popularity reflects tourists' interest in detailed, localized information.

Big Island Hawai'i Tour Guide
Another island-specific guide trending, suggesting a preference for tailored, location-based content.

O'ahu GPS Audio Tour Guide
Trending status of this app indicates the appeal of GPS-enabled audio tours for exploring O'ahu.

KHON2 WX - Radar & Forecasts
Local news station's weather app popularity shows reliance on trusted local sources for weather information.

Maui Happy Hours
Money-saving tips and recommendations, catering to both locals and tourists exploring Maui's dining scene.

Big Island Now
The app's success demonstrates the value of providing reliable, comprehensive local news and activity planning tools for residents and visitors.

We identified a total of 32 privately run Hawai‘i apps, most with limited adoption, suggesting low potential user uptake.

App Name	Purpose of App	Business Model	*Estimated Number of Downloads (Google Play)	*Estimated Number of Downloads (App Store)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Hawai‘i News Now Weather	Weather & Surf Conditions	Advertising Supported	100,000	144,000	1,090	4.6	5,400	4.7
Marine Weather Forecast Pro	Weather & Surf Conditions	In-App Purchases, Advertising Supported	50,000	72,000	659	4.1	14,000	4.7
Shaka Guide	GPS Audio Tours	Tour	In-App Purchases	10,000	14,400	1,110	4.8	7,400	4.9
Shaka Kaua‘i Audio Tour Guide	Tour	In-App Purchases	10,000	14,400	1,040	4.8	4,300	4.8
Big Island Hawai‘i Tour Guide	Tour	In-App Purchases	10,000	14,400	878	4.7	3,600	4.8
O‘ahu GPS Audio Tour Guide	Tour	In-App Purchases	10,000	14,400	955	4.7	3,500	4.9
KHON2 WX - Radar & Forecasts	Weather & Surf Conditions	Advertising Supported	10,000	14,400	100	4.3	1,600	4.6

Full list can be found in Appendix section 5.

*Estimated App Store Downloads = Google Play Downloads × 1.44,
based on U.S. market shares in 2024 (iOS: ~58.81%, Android: ~40.81%).
Actual downloads may vary due to platform differences and user behavior.
Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K

Only six government funded apps were identified. These apps had similar download rates, but generally had lower ratings compared to those in the private sector.

App Name	Purpose of App	Business Model	Number of Downloads (Google Play)	*Estimated Number of Downloads (App Store)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
DaBus2 - The Oʻahu Bus App	Transportation & Navigation	Government Funded	100,000	144,000	881	3.8	294	2.7
HNL Info	News	Government Funded	10,000	14,400	66	3.3	33	2.6
Honolulu 311	News	Government Funded	10,000	14,400	163	2.6	32	2.7
GoHawaiʻi App**	Travel Guides	Government Funded	10,000	14,400	29	2.7	16	2.6
Maui Bus	Transportation & Navigation	Government Funded	10,000	14,400	74	4	13	3.5
The Kauaʻi Bus Tracker	Transportation & Navigation	Government Funded	1,000	1,440	5	2.8	10	2.5

Full list can be found in Appendix section 5.

While it came up in some interviews and press releases, we were not able to identify any specific destination that accomplished comprehensive destination management through an app.

Cities like Venice, Amsterdam, Copenhagen, and Bordeaux are touted for their in management strategies but have yet to achieve comprehensive management through a single application.

Venice	Amsterdam	Copenhagen	Bordeaux

Venice
- A pilot program for €5 Entry Fee for Day-Trippers was launched in 2024 and generated €2.2 million from 450,000 visitors
- Tourist Group Size Limit also capped group sizes to 25 in the historic center and surrounding islands
- Banned megaphones and loudspeakers to reduce noise
- Venice's Smart Control Room uses real-time data to monitor tourism flows
- The city's Integrated Action Plan, emphasizes stakeholder collaboration across local authorities, the Tourism Department, and the EU Policies Department

Amsterdam
- Amsterdam launched the 'Stay Away' Campaign to deter party tourism and promote responsible visitor behavior
- The CityFlows Project uses advanced crowd monitoring techniques and a decision-support system (CM-DSS) to manage pedestrian spaces more effectively
- Restricts river cruises, converts hotels into homes or offices, and promotes attractions beyond the city center to ease overcrowding
- Has increased tourist taxes to fund sustainable tourism initiatives

Copenhagen
- Copenhagen launched the Wonderful Copenhagen campaign in 2017. It fosters collaboration with local stakeholders to integrate residents' perspectives into tourism
- The city offers user-friendly digital platforms, including city guides and trip planners
- Copenhagen invests in cycling infrastructure and public transit for eco-friendly travel
- Implements waste management and carbon offset guidelines for sustainable gatherings
- Achieved a top ranking in the Global Destination Sustainability Index, scoring over 90%

Bordeaux
- Bordeaux developed a sustainable tourism roadmap with 32 actions through 10 months of consultations with stakeholders, including tourism professionals and public institutions.
- The roadmap outlines a timeline for implementation extending to 2026.
- By 2023, Bordeaux had achieved 80% of its tourism objectives.
- Ranked 6th in the Global Destination Sustainability Index in 2024, reflecting significant progress in sustainable tourism.

The GoHawaiʻi App incorporates many smart features identified by stakeholders but has received limited budget and marketing support.

GoHawaiʻi provides a broad array of visitor resources alongside valuable features like a calendar of events, itinerary builder, and interactive maps.

GoHawaiʻi App

GoHawaii App has links to reservation sites, interactive maps, and other Stakeholder identified features. However, these features may not be fully integrated or as user-friendly as stakeholders envision.
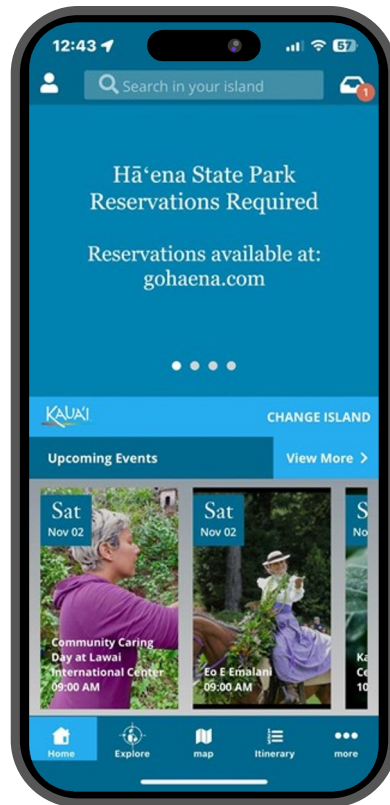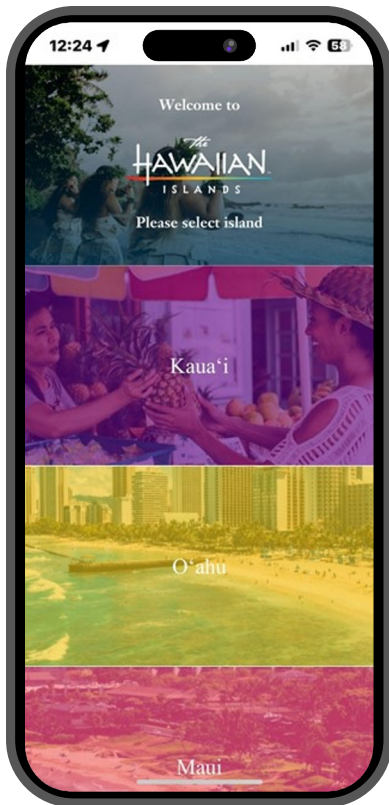
Existing features and functionality that currently exist in the GoHawai'i App Include:

- **Links to Park Reservations**
- **Interactive Maps and Geo-Aware Content**
- **Itinerary Builder**
- **Language Support**
- **Transportation Tracking**
- **Cultural Awareness Tools**
- **Trail and Site Information**
- **OpenTable Reservations**
- **Sustainability and Stewardship Tools**

GoHawaiʻi App
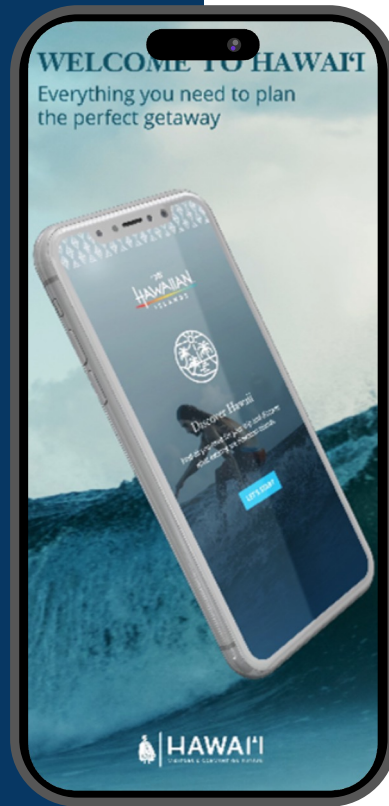
App Name	GoHawaiʻi App
Purpose of App	Travel Guide
Business Model	Government Funded
Google Play Downloads	10,000
*Estimated App Store Downloads	14,400
**Average Monthly App Users	3,252
Stars (Google Play)	2.7 Stars
Stars (App Store)	2.6 Stars
App Owner	Hawaiʻi Visitors & Convention Bureau

> **While the purpose of the current app may include much of the functionality that is being considered for the Smart Tourism app, the current version is not highly-rated. With only 2.6 stars out of 5 stars in the app store.**

**Source: HVCB (Jan-Sep 2024)
*Estimated App Store Downloads = Google Play Downloads × 1.44, based on U.S. market shares in 2024 (iOS: ~58.81%, Android: ~40.81%). Actual downloads may vary due to platform differences and user behavior. Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K

While the current GoHawaiʻi app faces challenges reflected in its low ratings, it may provide a solid foundation with opportunities to enhance functionality, user experience, and adoption—creating a potentially strong starting point for an improved app.

Align on Strategic Vision and Roadmap

- Leverage the existing development team, True Omni technical capabilities to create a feature-rich, user-friendly app.
- Establish a unified roadmap to prioritize key features and deliver a cohesive experience.

Enhance User Experience and Functionality

- Integrate reservation systems and ticketing functionality to streamline the visitor experience.
- Expand features to deliver a more comprehensive and seamless journey for users.

Drive Adoption with a Clear Value Proposition

- Develop a robust marketing and adoption strategy to encourage downloads and engagement.
- Highlight unique benefits that make the app indispensable for both visitors and stakeholders.

Shaka Guide GPS Audio Tours, with multiple GPS audio guide tours for Hawai'i locations, is another one of the top performing tourism related apps on the market for Hawai'i, providing audio narration to tourists for must-see stops, with stories, local music and travel tips for places that are being visited.

Shaka Guide | GPS Audio Tour
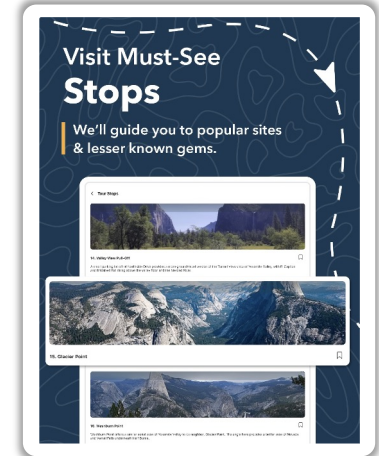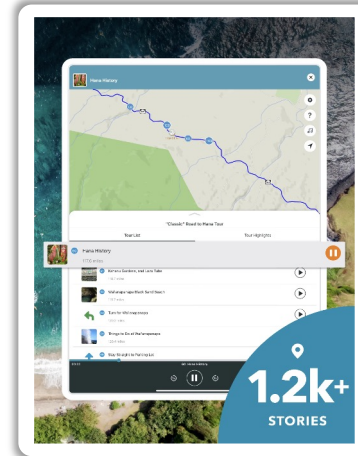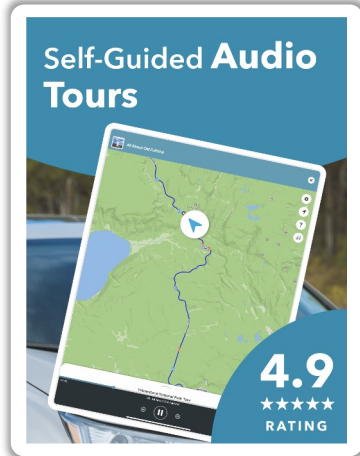
> " Shaka Guide is the middle ground to having a high-quality, curated audio tour experience without the very steep cost of an in-person tour guide.
>
> — *Andrew Fowers, Shaka Guide*

Primarily used by residents, the HNN app provides access to station content, a fully integrated GPS awareness for current location weather, and severe weather alerts from the National Weather Service.

Hawai'i News Now Weather
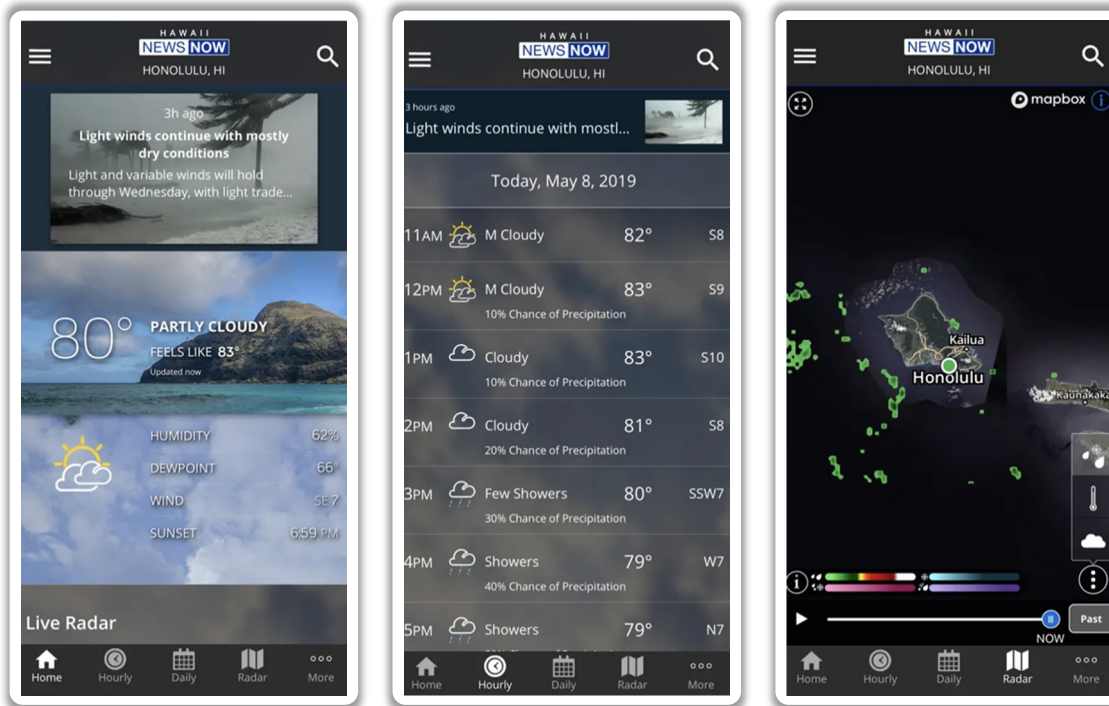
App Name	Hawai'i News Now Weather
Business Model	Advertising Supported
Google Play Downloads	100,000
*Estimated App Store Downloads	144,000
Stars (Google Play)	4.6
Stars (App Store)	4.7
App Owner	Gray Television, Inc.

*Estimated App Store Downloads = Google Play Downloads × 1.44, based on U.S. market shares in 2024 (iOS: ~58.81%, Android: ~40.81%). Actual downloads may vary due to platform differences and user behavior. Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K

Successful Hawai'i apps prioritize user-friendly design, real-time and offline functionality, customization, and high-quality local content. Frequent updates, support for local businesses, and niche solutions drive engagement and adoption.

Key Findings from Tourism App Research

User Experience and Interface Matter	Apps with intuitive, user-friendly designs, such as *Hawaiiverse* and *Shaka Guide*, are highly rated. Users appreciate a clean, simple interface that allows seamless navigation between features like local deals and tour content. Apps with poor design or frequent crashes, like *GoHawai'i app* and *HNL Info*, struggle to retain users despite offering valuable information. Visually appealing apps, such as *I'm In Hawai'i*, further enhance the experience by showcasing Hawai'i's beauty.
Real-Time and Offline Functionality Are Crucial	Real-time updates, especially for weather and transportation, are a major user expectation. Apps like *Hawai'i News Now Weather* and *DaBus2* are valuable for providing real-time data, though frequent crashes limit their effectiveness. Offline access is also essential for tour and map apps such as *Shaka Guide* and *Kaua'i Revealed Drive Tour*, enabling users to explore areas without an internet connection, a key feature in remote regions of Hawai'i.
Customization and Personalization Features	Apps that offer customization, such as creating personalized itineraries or setting preferences, are better received by users. Apps like *O'ahu GPS Audio Tour Guide* and *Hawai'i Travel Guide* excel in this area, allowing travelers to tailor their experience to their specific needs, enhancing usability for various types of travelers.
High-Quality Content and Local Insights	Apps that provide cultural and historical insights significantly improve the user experience. For instance, *Shaka Guide* and *Maui Snorkeling Guide* are praised for their storytelling and deep local knowledge, making the apps more than just navigation tools—they enrich the travel experience. In contrast, apps that simply aggregate general information, such as *Honolulu Travel Guide*, tend to see lower user engagement.

Frequent Updates and Maintenance Are Essential	Regularly updated apps perform better in terms of user satisfaction. Many apps, such as *Big Island Now* and *KHON2 WX*, face user dissatisfaction due to crashes or outdated content. Frequent updates not only improve functionality but also keep users engaged and reduce the need for reinstallation.
Support for Local Businesses	Apps like *Hawaiiverse* stand out by offering proximity-based deals and promoting local businesses, providing users with a unique value proposition. These features benefit both tourists and locals, encouraging support for the local economy while exploring Hawai'i.
Engaging and Entertaining Content	Tour apps like *Shaka Guide* and *Kaua'i Revealed Drive Tour* offer entertaining audio tours filled with cultural history and fun facts. Personalized, engaging content makes the travel experience interactive and enjoyable, with options for users to explore at their own pace.
Specific Use-Case Solutions	Niche apps such as *Marine Weather Forecast Pro* provide targeted solutions for specific user groups like surfers or sailors. By addressing these unique needs, these apps enhance the experience for users who require specialized information.

Key Takeaways: Hawaii App Market Analysis

- **Current Market Gaps**: Existing public and private tourism apps in Hawaiʻi do not meet visitor expectations for an integrated experience, revealing an opportunity for a comprehensive solution.

- **Evaluating Public and Private Tourism Apps:** 32 privately run apps were identified, but most show limited adoption. Success comes from offering focused solutions like tours, travel guides, weather, and navigation. In comparison, only six government-funded apps were found, with similar download rates but lower user ratings compared to private sector apps.

- **GoHawaiʻi App**: Despite incorporating smart features like event calendars, itinerary builders, and interactive maps, the GoHawaiʻi app has low ratings possibly due to limited budget, marketing support, and user experience challenges. It offers potential for enhancement.

- **Successful Models**: Apps like **Shaka Guide** currently excel by addressing specific visitor needs through GPS audio tours, local storytelling, and travel tips.

> "
> An app that manages visitor flow, congestion, and safety could help, but it's a double-edged sword: warning people away can sometimes draw even more attention.
>
> — *Government Stakeholder*

Section 5B

Benchmarking & Best Practices: Beyond Hawai'i

The most successful Tourism and DMO apps on the market focus on offering comprehensive travel guides, interactive maps, and personalized trip-planning features. Our research highlights a wide variety of apps tailored to different destinations.

We reviewed 150 Tourism and DMO apps and identified 10 apps that serve as great examples.

The top downloaded app on the Google Store is Japan Travel (500K+).

The highest rated apps, with substantial reviews on the Apple App Store are:

- Visit Lake Tahoe (5.0 stars)
- Visit Blue Ridge GA! (4.9 stars)
- VISIT FLORIDA (4.8 stars)

Top Themes of Positive Feedback:

- Comprehensive Information
- User-Friendly Interface
- Offline Functionality

Top Themes in Negative Feedback:

- Technical Issues (crashes, slow loading)
- Content Updates and Accuracy

High-quality content, seamless functionality like offline access and booking, and intuitive design are key drivers of user satisfaction.

Community engagement and interactive features, such as gamified tours, further enhance user experience and boost app adoption.

High Demand for Quality Content

Most apps are praised for providing detailed, useful information, whether for trip planning or local insights.

Functionality is Key

Offline access, booking capabilities, and navigation are frequently highlighted as crucial features.

User Experience Matters

Apps with intuitive interfaces and clean design are consistently valued.

Community Engagement

Support for local businesses and events is a valued feature in many apps.

Interactive Features Enhance Engagement

Apps offering interactive tours or gamification are well-regarded.

Key Features of Successful Tourism apps focus on utility to help visitor optimize their vacation experience, but there is a noticeable absence of any real destination management tools.

Multimedia Content
8
High-quality photos, videos, and audio guides enhance the user experience and provide a preview of the destination.

Real-time Updates
7
Apps often provide current information on events, weather, and alerts.

Trip Planning Tools
6
Many of these apps include features to help users plan their trips, create itineraries, and save favorite locations.

Multi-language Support
5
Some apps, like Visit Abu Dhabi, offer content in multiple languages to cater to a diverse audience.

Comprehensive Information
1
These apps offer extensive details about attractions, accommodations, dining options, and events in their respective destinations.

Interactive Maps
2
Most of these apps include detailed, interactive maps that help visitors navigate the destination easily.

Offline Functionality
3
Many apps, like the National Park Service app, allow users to download content for offline use, which is crucial in areas with limited connectivity.

Personalization
4
Apps like Visit Orlando and Discover LA offer personalized recommendations based on user preferences, time, weather, and location.

The Japan Travel App exemplifies how a destination can simplify travel by combining features such as route planning, real-time schedules, offline maps, JR Pass integration, and booking support, offering accurate data and a user-friendly interface.

Japan Travel

Discover the best autumn foliage sports

Interactive railway map

Japan rail pass optimized routes
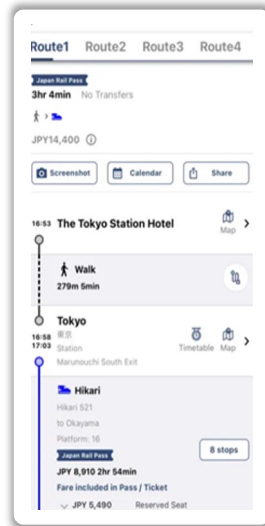
Navigation based on real-time traffic congestion
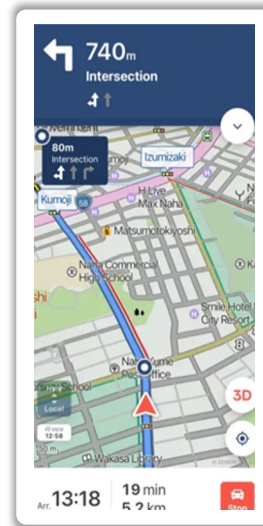
App Name	Japan Travel - Route,Map,Guide
Business Model	Freemium and Advertising
Google Play Downloads	1,000,000
***Estimated App Store Downloads**	1,440,000
Stars (Google Play)	4.1
Stars (App Store)	4.7
App Owner	NAVITIME JAPAN CO., LTD.

*Estimated App Store Downloads = Google Play Downloads × 1.44, based on U.S. market shares in 2024 (iOS: ~58.81%, Android: ~40.81%). Actual downloads may vary due to platform differences and user behavior. Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K

Visit Widget has emerged as a leading provider of custom-branded destination apps for DMOs. Out of the 150 apps identified 70% of the apps (105 apps) were developed by Visit Widget. These apps are almost exclusively focused on marketing with no real elements of destination management.

These apps offer features such as

- ⊘ Comprehensive trip planning tools

- ⊘ Interactive maps

- ⊘ Curated recommendations

- ⊘ Proximity-based notifications

- ⊘ Gamification elements (tours, passports, and goals)

- ⊘ A few examples of Other Tourisms that have worked with VisitWidget include: Oklahoma, Massachusetts, Delray Osage, Waco Texas, Buttery County Pennsylvania, Visit Jacksonville, Visit Florida
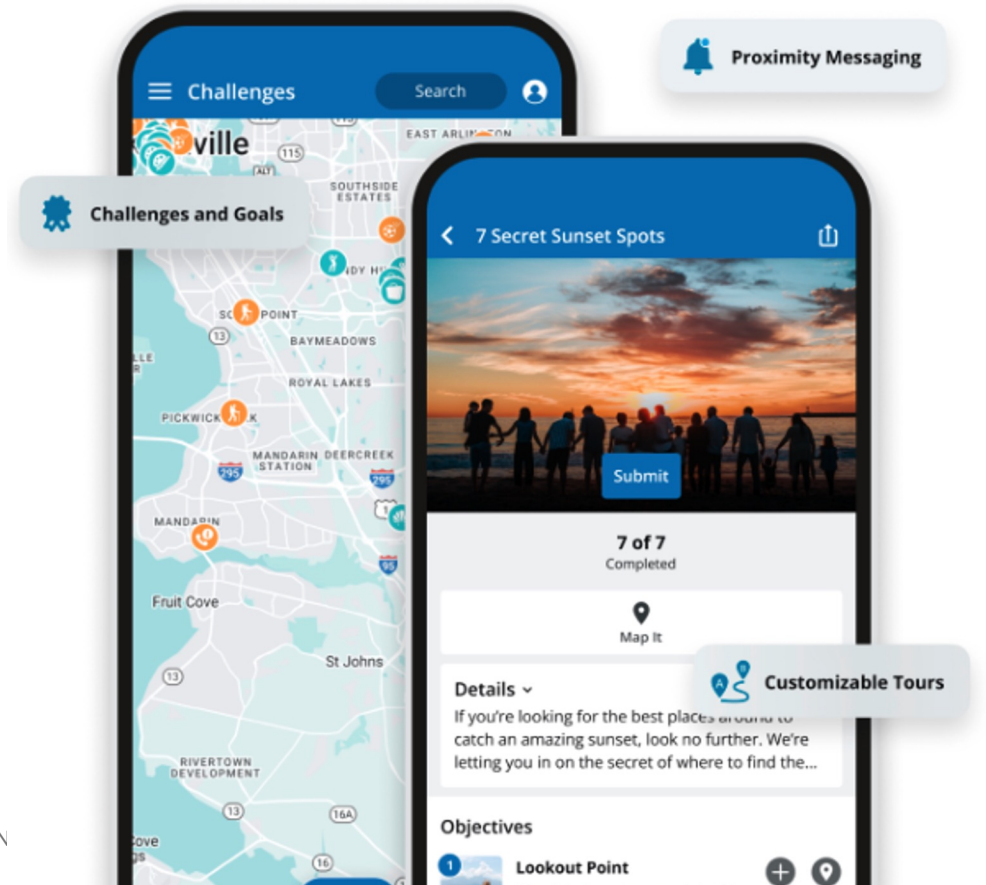
The Visit Lake Tahoe app showcases VisitWidget's success, offering customizable itineraries, activity recommendations, and real-time updates to enhance trip planning and the visitor experience.

Visit Lake Tahoe
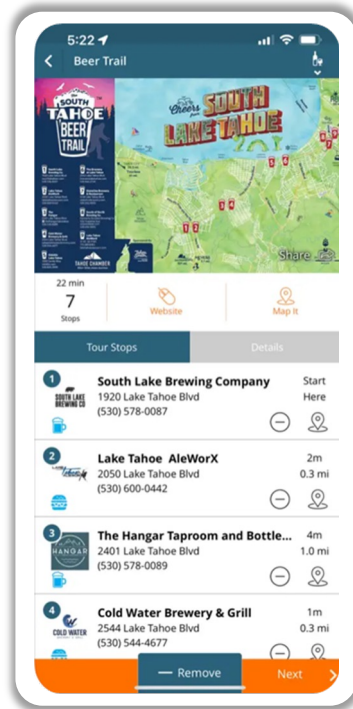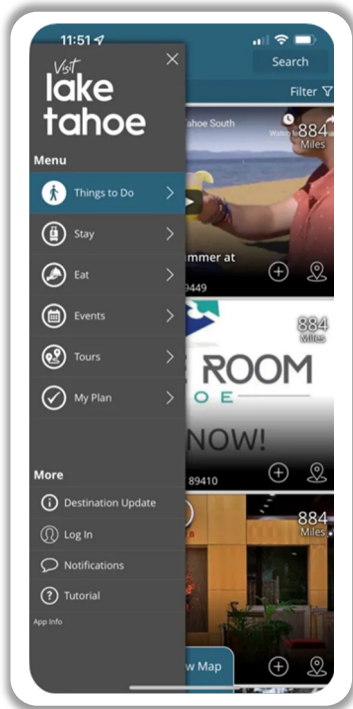
App Name	Visit Lake Tahoe
Business Model	Government Funded
Google Play Downloads	10,000
***Estimated App Store Downloads**	14,400
Stars (Google Play)	4.7
Stars (App Store)	4.8
App Owner	Lake Tahoe Visitors Authority, Inc.

*Estimated App Store Downloads = Google Play Downloads × 1.44, based on U.S. market shares in 2024 (iOS: ~58.81%, Android: ~40.81%). Actual downloads may vary due to platform differences and user behavior. Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K

To create an engaging app experience for Hawai'i, can also learn from cruise and amusement park apps, which excel in delivering comprehensive experiences.

In our research, we noticed that apps for cruise lines and amusement parks excel in delivering comprehensive, all-in-one experiences, largely due to the 'captive' nature of their environments.

Nearly everything passengers or visitors can experience – whether onboard the ship or inside the park – is integrated into these apps, providing seamless navigation, booking, and event updates.

This model is highly successful because users are entirely immersed in a single destination, allowing for focused, tailored content that enhances the experience and with limited, if any, competition.

By focusing on creating a similarly immersive experience, the app could integrate real-time updates, local insights, and offline capabilities to ensure that visitors can easily access information, make bookings, and navigate activities.

Additionally, personalizing the content based on specific regions or islands, much like these cruise and amusement park apps do, could improve engagement and user satisfaction.

Thirty percent of stakeholders cited the My Disney Experience app as inspiration, praising its comprehensive, connected experience and effective visitor flow management.
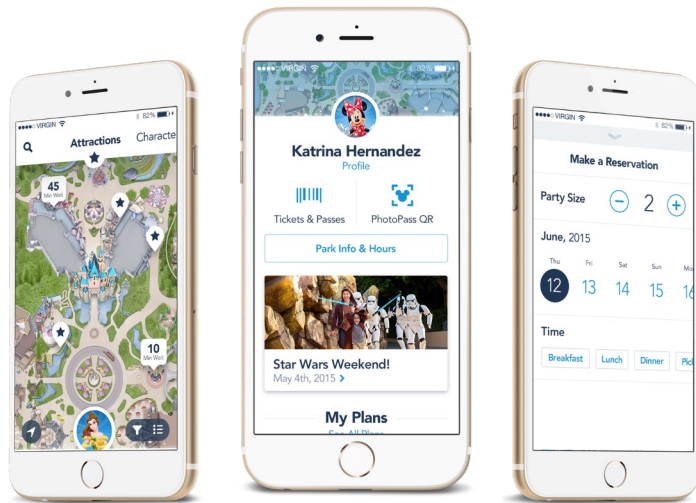
The app plays a crucial role in destination management for Disney theme parks, offering a comprehensive suite of features that enhance visitor experience and operational efficiency. This digital platform serves as a central hub for guests to plan, manage, and enjoy their Disney vacation.

> " If I think about an app like Disney's, it doesn't just give you a map or a schedule; it creates an integrated experience.
>
> You can plan your day, check line waits, and even feel like you have agency while Disney guides the flow of people across the park. That's the kind of integration we should aim for—not just for visitors, but also for managing the islands as a system.
>
> - Tourism Stakeholder

The success of the Disney app lies in its high utility for users. This is operationally feasible because Disney operates in a "closed" environment, where it either controls or has significant influence over all aspects of the park experience.

Real-Time Crowd Management

The app provides real-time wait times for attractions across the parks, allowing guests to optimize their visit. Disney uses this data to manage crowd flow, incentivizing guests to move to less congested areas through personalized promotions based on individual behavior patterns. This dynamic crowd management system has enabled Disney to increase park capacity by up to 30%

Reservations and Planning

Guests can make dining reservations up to 60 days in advance, book Lightning Lane entries, and manage their entire itinerary through the app. This feature not only enhances guest experience by reducing wait times but also allows Disney to better predict and manage resource allocation.

Integrated Payments

The app integrates with Disney's MagicBand+ system, allowing for seamless payments throughout the resort. This cashless system not only convenience for guests but also provides Disney with valuable data on spending patterns and preferences.

Data Collection Methods

Disney employs a sophisticated data collection system that includes:

1. RFID-enabled MagicBands
2. IoT sensors and cameras throughout the resort
3. Mobile app usage data
4. Purchase history

This comprehensive data ecosystem allows Disney to track guest activity with extreme precision, from ride preferences to dining habits.

By combining guest preferences with real-time park data and AI-driven recommendations, Disney aims to create a highly personalized and efficient park experience for each visitor. This level of customization is made possible by Disney's controlled environment and comprehensive data ecosystem within their parks.
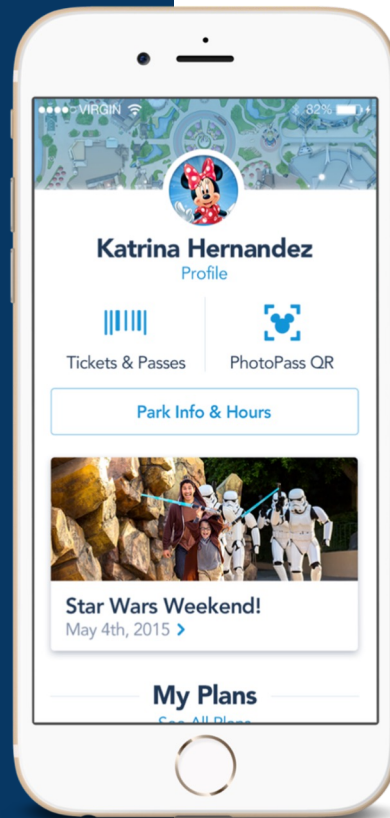
App Name	My Disney Experience
Purpose of App	Activity Booking, Events Information, Transportation & Navigation
Business Model	Freemium
Google Play Downloads	5,000,000
*Estimated App Store Downloads	7,200,000
Stars (Google Play)	4.4 Stars
Stars (App Store)	4.6 Stars
App Owner	Disney

*Estimated App Store Downloads = Google Play Downloads × 1.44, based on U.S. market shares in 2024 (iOS: ~58.81%, Android: ~40.81%). Actual downloads may vary due to platform differences and user behavior. Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K

Operational Advantages in Disney's Closed Environment

Disney's controlled environment offers unique advantages for implementing such a comprehensive system.

✅ **Complete ecosystem control**
Disney can integrate all aspects of the guest experience, from hotel check-in to ride access, within a single system.

✅ **Predictive analytics**
The closed loop of data allows Disney to predict guest behavior with high accuracy, optimizing everything from staffing to maintenance schedules.

✅ **Personalized experiences**
With access to comprehensive guest data, Disney can tailor experiences and offers to individual preferences.

✅ **Seamless integration**
The app works in conjunction with physical infrastructure like MagicBands, creating a cohesive guest experience.

> " I know people have been pointing to the Disney app as a model, and its main function is as a map tool to guide visitors around the park... It's about tracking, managing flow, and offering centralized information. But Hawaiʻi is not a theme park—we're a distributed destination across multiple islands.
>
> **– Apps & Technology Stakeholder**

While Disney's model is highly effective, replicating it in non-closed environments like a state tourism system would face numerous challenges.

Data fragmentation
Unlike Disney's controlled ecosystem, a state would need to coordinate data collection across multiple independent businesses and attractions

Privacy concerns
Collecting comprehensive data on visitors' movements and preferences outside a controlled environment raises significant privacy issues.

Infrastructure costs
Implementing a similar level of technological integration across an entire state would be prohibitively expensive.

User adoption
Without the incentive of a unified experience, getting visitors to consistently use a single app across various attractions would be challenging.

Lack of control
A state cannot control all aspects of a visitor's experience, limiting the effectiveness of predictive analytics and personalized offerings.

Diverse stakeholders
Coordinating between numerous independent businesses, attractions, and government entities would be complex.

Open environment
Unlike Disney's controlled space, visitors to Hawaiʻi move freely between public and private spaces, making comprehensive tracking infeasible.

Legal restrictions
State and federal laws may limit the extent of data collection and usage possible in a public setting.

Variable connectivity
Ensuring consistent app functionality across diverse geographical areas, including remote locations, would be challenging.

Tourism apps outside Hawai'i offer useful insights, like Hawai'i apps, they emphasize customization, diverse functionality, and providing accurate, timely information, but not much in the way of destination management.

Customization and User Engagement

Apps that offer **personalized experiences** and **detailed content** (e.g., *Tripadvisor*, *Skyscanner*) are particularly valued. Features like customizable itineraries, real-time notifications, and in-depth local insights allow users to tailor their travel experiences.

Performance Issues

Despite their usefulness, many tourism apps face issues with **reliability** and **performance**. Users frequently report **app crashes**, **payment and booking errors**, and **outdated or inaccurate information**. These problems can significantly detract from the overall user experience.

Local Support and Community Engagement

Some apps, such as *Yelp* and *WithLocals*, excel at promoting **local businesses** and **community engagement**, helping travelers discover authentic local experiences and support small businesses.

Diverse Functionality

Tourism apps like *Vrbo*, *Yelp*, *TripAdvisor*, and *Airbnb* cover a wide range of services, from **accommodation booking** and **travel planning** to **outdoor activities** and **local dining**. These apps help travelers manage their trips comprehensively, offering everything from reservations to user-generated reviews.

Key Takeaways: Key Learnings from Existing Apps

✓ **High Utility and Functionality:** Successful Tourism and DMO apps feature comprehensive travel guides, interactive maps, offline access, and trip-planning tools to enhance the visitor experience.

✓ **Customization and Timely Data**: Tourism and DMO apps should emphasize personalized experiences and accurate, timely information to improve engagement and satisfaction.

✓ **Performance Issues Quickly Deters Users:** Despite their usefulness, many apps face **issues with reliability and performance**. Users frequently report app crashes, payment and booking , and ouerrorstdated or inaccurate information. These problems can significantly detract from the overall user experience.

✓ **Lack of Destination Management:** Most current tourism related apps focus on marketing and visitor services, but there is a noticeable gap in true destination management functionality.

✓ **Complications in an Open Environment:** The *My Disney Experience* app excels in personalization and visitor flow management, leveraging real-time data and AI within a controlled environment. However, while Disney's app was referenced by stakeholders, it should be noted that unlike Disney's controlled environment, Hawai'i's mix of public and private spaces makes comprehensive visitor tracking infeasible.

> "
> "The app should be designed with the flexibility to evolve and adapt to technological changes, user feedback, and shifting destination management needs over time."
>
> *— Tourism Stakeholder*

Section 6

Marketing and User Acquisition

Ensuring widespread adoption of the smart app and continued engagement will require a well-executed marketing strategy that communicates the app's value, drives usage, and enhances the overall visitor experience.

Drive Awareness

Ensure potential users are aware of the app through targeted campaigns across key channels, including partnerships with airlines, hotels, and tourism boards.

Communicate Clear Value

Highlight the app's unique benefits, such as simplifying travel planning, enhancing the visitor experience, and potentially providing exclusive insights and offers.

Engage Users During their Stay

Leverage in-app notifications, real-time updates, and interactive features to keep users actively engaged while exploring Hawai'i.

Foster Long-Term Adoption

Implement strategies to encourage continued use after the visit, such as personalized content, future travel planning tools, and loyalty incentives.

> " My concern is why someone would choose this app over others like TripAdvisor, Hilton, or JTB. The key question is: what's the value proposition of this app compared to the many options already available? I don't have the answer, but I think it should focus on being less commercial and more informative.
>
> *– Supplier Stakeholder*

To avoid confusion with existing apps and resources, the smart app should be positioned as the official tourism resource for visitors and residents through clear messaging, stakeholder collaboration, and strategic branding.

A Unique and Unified Brand Identity	Stakeholder Buy-In and Unified Messaging	Aligning Resources	Strategic Communications Plan
Position the app as *the* official and primary tourism app for Hawaiʻi, endorsed by the state and key stakeholders.	Promote the app as the centralized hub where key resources can be easily accessed, complementing rather than replacing partner initiatives.	Clearly communicate what sets this app apart: comprehensive, real-time information that enhances the visitor experience and alleviates local pain points (e.g., congestion, cultural preservation).	Conduct an ongoing awareness campaign pre-launch and post-launch to highlight the app's benefits.

Beyond building awareness and adoption, the marketing strategy should also support the app in delivering tailored experiences, consistent updates, and continued value to keep users engaged.

What's the Value
Introduce users to the app's core features quickly and effectively, demonstrating immediate value by highlighting the apps features like real-time information and alerts, streamlined navigation and traffic updates.

Regular Updates
Continuously refresh app content with new information so that users are interested in frequently checking the app. Opportunities might include up to date information on events, special offers or nearby attractions.

Push Notifications
Use timely, relevant push notifications to remind users of new information that's relevant to their travels. Combining this feature with the upkeep of information in the app could increase continued usage of the app during visitor's travel.

Responsible Tourism
Stakeholders emphasized educating visitors about Hawaiʻi's unique culture, while also highlighting how the app can provide valuable insights on preserving the ecosystem and respecting Native Hawaiian traditions.

Personalization
Implement features that adapt to user preferences, such as personalized recommendations for itineraries or location-based alerts that provide information on things to do based on where a visitor is while in Hawaiʻi.

Defining the Target Market is Essential for Success: Determining whether the app serves visitors, residents, or both will be critical to tailoring both the design and promotion of the app to meet user needs and drive engagement effectively.

Targeted Messaging for Greater Engagement

Identify if the primary users are visitors, residents, or both to ensure messaging resonates and serves their distinct needs.

Highlight Dual Benefits to Encourage Broader Usage

Interviews suggest value to residents in reducing congestion and providing helpful information, even for locals unfamiliar with certain resources.

Drive User Satisfaction by Addressing Unique Needs

Defining the target audience lets the app cater specifically to either visitor or resident needs, boosting usability and satisfaction

"Visitors may be here temporarily, but while they're on our islands, they become part of our community. Supporting both visitors and residents with reliable, accessible information fosters a shared sense of respect and understanding. If we want residents to extend a welcoming spirit to visitors, they need the same tools to navigate and appreciate our islands fully.

– Tourism Stakeholder

SASSATO HAWAI'I TOURISM AUTHORITY

To drive downloads, the app must provide clear and compelling value for the target market.

This value generally aligns with three key factors: addressing an essential need, streamlining tasks, or delivering highly desired benefits.
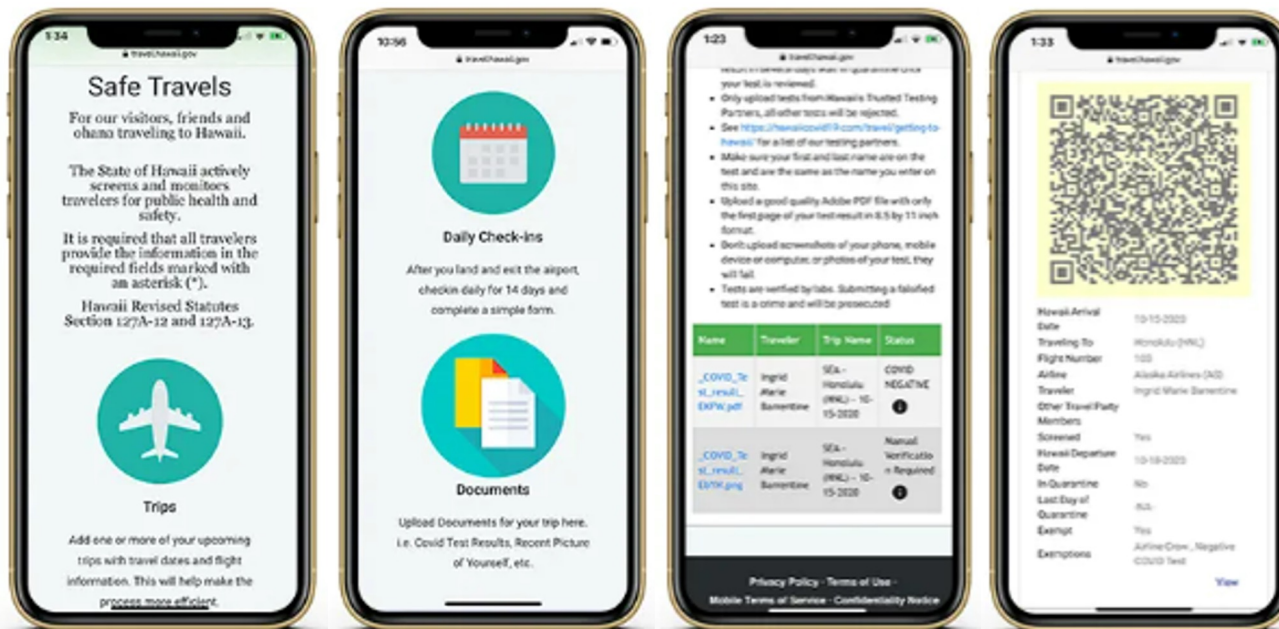
While safe travels was not an app but a website, it had widespread usage, because it met all three of the goals listed.

Stakeholder Suggestions

Essential Services
Features that provide immediate value and safety, such as real-time alerts, navigation and traffic updates, weather and surf conditions.

Experience and Convenience
Reservation and crowd management systems, trip planning, and public transportation information.

Cultural Engagement
Cultural and educational content, local business information, dining/shopping options, event information, and gamification for user engagement.

> " To make it work, I really want to have a carrot and the stick approach, where we provide an excellent alternative and iconic experience.
>
> *— Government Stakeholder*

Outside of value and positioning, the app will also need to be appropriately named to resonate with visitors while also remaining simple, memorable, and accessible.

Stakeholders emphasized the importance of a name that resonates with users, stands out in a competitive app landscape, and aligns with the app's purpose while remaining easy to find and recall.

Ease of Discovery
A name that is simple, intuitive, and easily searchable to maximize visibility.

Memorability and Appeal
Should be catchy and engaging to create a lasting impression.

Cultural Sensitivity
A balance should be struck between honoring culture without creating barriers to adoption.

Brand Identity
It should complement future marketing efforts and branding opportunities.

> " I think it's important to find a balance—something that resonates with the culture but is also easy for visitors to remember and engage with. We want it to reflect Hawaii, but not feel exclusionary or overly complex.
> *– Community Stakeholder*

Encouraging visitors to actively download the app requires a robust, strategic approach that aligns with their travel experience from pre-arrival to on-island activities and post-travel in Hawai'i.

Travelers go through multiple phases – pre-arrival planning, in-transit, on-island, and post-stay – each with unique needs and opportunities for engagement. For example, the needs of a visitor and the type of information they'll need from the app will be different prior to their arrival than when they're on island. Given this, a one-size-fits-all approach won't work. Each stage requires targeted messaging and strategies to maximize app awareness, downloads, and long-term retention.

Pre-Arrival Focus

Capture travelers' interest early with partnerships and promotions through channels like airlines, booking platforms, and travel sites to ensure they download the app before arrival.

On-Island Engagement

While visitors are exploring Hawai'i, leverage local partnerships and QR codes at key locations to provide real-time value and encourage app use.

Extend Value Post-Stay

After visitors leave, maintain engagement by offering features and content that keep them connected to Hawai'i, motivating them to retain the app for future trips.

Engaging travelers during trip planning ensures early app adoption, paving the way for a seamless and enriched visitor experience.

Key Opportunities for Pre-Visit Engagement

Partner with Travel Providers
Collaborate with airlines, cruises, hotels, and short-term rentals (Airbnb/VRBO) to promote the app. Emphasize the convenience of downloading the app before arrival to access essential services and local information.

Engage Travel Influencers and Bloggers
Collaborate with influencers and bloggers focused on Hawaiʻi travel to review and highlight the app, expanding reach to an audience actively seeking Hawaiʻi-specific travel information.

Collaborate with the Visitors Bureau
Work closely with the Hawaiʻi Visitors & Convention Bureau to integrate the app into their communications and outreach, reinforcing the app as an essential travel companion.

Feature on Airline and Cruise Websites
Work with airline and cruise partners to place app promotions on Hawaiʻi destination pages, adding credibility and early visibility.

Leverage Booking Platforms
Work closely with partners to feature the app on popular booking sites like Expedia and TripAdvisor, including download prompts in booking confirmations and destination pages, where travelers are actively planning their trip.

Include in Partner Newsletters and Emails
Utilize welcome emails and newsletters from partner businesses to promote the app as a must-have for their trip to Hawaiʻi, with download links for easy access.

Launch Targeted Social Media Ads
Run ads on platforms like Instagram and Facebook aimed at visitors planning a Hawaiʻi trip. Showcase how the app can assist with everything from itinerary planning to real-time updates.

Engaging travelers during their journey will provide key opportunities to introduce the app, showcase its value, and encourage downloads at critical moments of visitor travel.

Key Opportunities for In-Transit Engagement

Collaborate on QR Code Stickers with Local Brands:

- Distribute QR code stickers through in-transit amenities, like food trays, boarding passes, or even branded items handed out on Hawai'i-bound flights, reinforcing app awareness and easy access.

Showcase in Transit Hubs Beyond Hawai'i:

- Expand reach by displaying app promotions in transit hubs where many Hawai'i visitors connect, like LAX, SFO, or SEA, creating anticipation and encouraging downloads even before boarding.

In-Flight and Pre-Arrival Push Notifications:

- If partnering airlines offer Wifi, consider a pre-arrival push notification or email from the airline, linking directly to the app for immediate download and setup before landing.

Partner with Airlines for In-Flight Promotion:

- Work with airline partners like Hawaiian Airlines to feature the app in their in-flight videos, demonstrating its usefulness for navigating and exploring Hawai'i.
- Include app information in seat-back magazines with a QR code for easy download, reaching passengers during their flight.

Leverage Airport Signage and Digital Ads:

- Place app advertisements in high-traffic areas within Hawaii airports, such as baggage claim, security, and shuttle stops, where visitors are primed to think about their plans.
- Integrate digital screens or banners with a QR code for immediate download, capitalizing on visitor curiosity upon arrival.

Offer In-Airport Kiosks or Help Desks with app Information:

- Set up informational kiosks or help desks that provide assistance on the app, explaining its features and encouraging downloads as travelers transition from arrival to exploring the islands.

Partnering with local businesses and organizations can boost app adoption by highlighting its value to visitors. Leverage in-state activities and touchpoints that visitors commonly encounter to promote the app effectively.

Key Opportunities for During Visit Engagement

Partner with Local Businesses for QR Code Placement
Collaborate with hotels, restaurants, attractions, and tour operators to display **QR codes at check-in desks, menus, or lobby areas**. This provides an easy way for visitors to access the app and explore local offerings.

Feature the app Through Local Business Promotions
Encourage participating businesses to promote the app on their **websites, social media, or receipts**, positioning it as a valuable tool for visitors to discover and navigate their services.

Integrate with Popular Local Events and Festivals
Collaborate with event organizers to feature the app in **event programs or signage**. Having a presence at local festivals, cultural celebrations, or sports events ensures visitors see the app as a trusted local resource.

Use Digital Screens at Key Tourist Sites and Transit Points
Display app advertisements **on digital screens or kiosks at popular sites** like Lēʻahi (Diamond Head), Puʻuloa (Pearl Harbor), and beach access points. QR codes can direct users straight to the download page.

Collaborate with Rental Car and Shuttle Services
Provide app information and download **links in vehicles, such as in rental car packets, shuttle vans, or via QR stickers inside vehicles**, reaching visitors as they begin to explore.

Work with Hotels to Feature the app on TV Systems and In-Room Materials
Collaborate to include the app in **welcome channels or in-room guides**, positioning it as a tool for activities, dining, and planning.

Involve Local Influencers or Guides for On-the-Ground Promotion
Partner with **local tour guides, influencers, and concierges** to mention the app during interactions, enhancing credibility and creating a personal recommendation touchpoint for visitors.

While the app's main value is guiding users during their stay, maintaining relevance post-visit is crucial for long-term engagement. To achieve this, the app should include features that keep users connected to Hawai'i and offer value after they leave.

Key Opportunities for Post-Visit Engagement

Highlight Unique Post-Visit Features

Offer **exclusive content** on Hawaiian culture, recipes, and language tips, allowing users to bring a part of Hawai'i home with them and stay connected to the islands.

Provide Future Trip Planning Tools

Encourage return visits by enabling users to **save favorite spots, create wish lists**, or receive updates on special events, helping them plan a future trip to Hawai'i.

Share News and Updates about Hawai'i

Deliver periodic stories about Hawai'i's environment, culture, and local events, **keeping users in touch with the islands** and fostering ongoing interest.

Introduce Referral and Loyalty Incentives

Implement a **referral program** or loyalty rewards that benefit users who encourage sustainable tourism or who refer others, creating a reason to stay connected and share the app.

Feature a Digital Souvenir Store

Allow users to s**hop for unique Hawaiian items**, such as art or music, through an in-app store, giving them a tangible way to stay connected and support local artisans.

Foster a Community of Hawai'i Enthusiasts

Build a **virtual community** within the app, offering forums or exclusive Q&A sessions with locals, where past visitors can stay engaged with Hawai'i and each other.

> " To successfully encourage users to download and retain the app, it's essential to consider why they would keep it long-term. Part of the strategy for this app should focus on how to make it indispensable for visitors, ensuring they see lasting value in keeping a Hawai'i app on their phones.
>
> **– Tourism Stakeholder**

Gaining the trust and support of Hawai'i residents and community partners will not only enhance adoption but more importantly also ensure the app's long-term sustainability and positive impact over time.

Building Support Through Transparent Communication	• Clear communication about the benefits of Smart Tourism is essential for gaining community buy-in, especially when it comes to how initiatives are funded and how they will positively impact residents. • Effective communication strategies should highlight the direct advantages to the community, such as traffic reduction and efficient resource allocation.

Foster Resident Support and Participation

Show residents how the app benefits their daily lives, encouraging adoption and making the app a trusted tool.

Offer Real-Time Data and Local Insights for Resident Benefit

Present features that aid in congestion relief and share insights relevant to locals, making the app an asset rather than just a tourism tool.

Create Partnerships for Community-Led Growth

Engage local organizations and influencers to build credibility, strengthen the app's reputation, and promote community buy-in.

Identifying clear success criteria early will ensure the app's performance can be effectively measured, guiding improvements and aligning with user and stakeholder expectations.

Measurements of Success

#		Category	Details	
01		**Number of Downloads/Users**	• Total number of app downloads and installations • Number of Daily active users (DAU)	• Number of monthly active users (MAU)
02		**User Engagement Metrics**	• Time spent in the app • Number of sessions per user	• Number of screens viewed • Relative "stickiness" (DAU/MAU)
03		**Retention Rate**	• Percentage of users who continue using the app over time	• Often measured 1 day, 7 days, 30 days after install
04		**Conversion Rate**	• Percentage of users who take desired actions (e.g. make a purchase)	
05		**Revenue Metrics**	• Average revenue per user • Customer Lifetime Value	• Return on Investment
06		**App Store Metrics**	• Ratings and reviews • App Store ranking	
07		**Destination Management Impact**	• Reduced Traffic • Positive Environmental Impact	• Enhanced Visitor Experience • Community Well-Being

Cost per install (CPI) should be considered when allocating a marketing budget for the app's initial launch and ongoing support.

Understand and Leverage Cost Per Install (CPI)	• CPI is a critical metric for tracking the cost of acquiring users and measuring campaign effectiveness. • On average, platform-specific benchmarks are $4.70 for iOS and $3.40 for Android in 2024, guide budget allocation and optimization. This means that the marketing cost to acquire one download is between $3.40 and $4.70, dependent on the platform.

Source: Data sourced here are forecasted values for 2024. Note that data can vary and fluctuate based on app category, region, and specific time periods. CPI benchmarks referenced are based on data from Business of Apps.

CPI is Crucial to Understanding Effectiveness

Understanding the benchmark CPI can help the state estimate the appropriate budget allocation and optimization for maximum impact as well as to understand the ROI of marketing once the app has been released.

Reality Check: CPI Math

To acquire 1 million installs: The marketing spend would need to be about $4.3mm assuming 70% / 30% (IOS/ Android)

This number could be driven down by the potential of utilizing state and partner assets to get the message out.

Long-Term Sustainability

The marketing budget should support not only app downloads but also strategies to ensure long-term user engagement and retention.

Download Reality Check: Even with great success, the app is likely to be used by only a portion of visitors.

For example assume 10 million visitors.

Determining what % of downloads and usage is considered success should be determined as part of the business case to proceed.

- Average **3 people** per visitor group, that is **3.3 million.**

- Assume we want **50%** of the traveling groups to have at least one person download the app.

- That would be **1.7 million** downloads per year.

- This would be significantly higher than the currently most downloaded hawaii app (HNN) which has somewhere between 244K and 1.2mm downloads.

- Using recent CPI metrics indicates generating 1 million downloads through marketing would cost $4.3 million.

Note: These numbers are for illustrative purposes only

Key Takeaways: Setting the Foundation for App Success

⊘ **Clear Objectives and Target Market:** A well-defined target market—whether visitors, residents, or both—is critical to shaping the app's design, promotion, and messaging to drive adoption and engagement effectively.

⊘ **Early Adoption Strategies:** Reaching travelers during the pre-arrival phase is vital for early app downloads, setting the stage for a seamless and enriched visitor experience.

⊘ **Engagement During the Journey:** Marketing efforts should focus on leveraging on-island touchpoints, collaborations with local businesses, and in-app features to sustain engagement during the stay.

⊘ **Long-Term Value Post-Visit:** Ensuring the app remains relevant after the trip, through features that maintain users' connection to Hawai'i, is key to driving long-term success and engagement.

⊘ **Foundations for Measurable Success:** Establishing clear KPIs and cost-per-install benchmarks ensures the app's performance is monitored effectively, allowing for ongoing improvements and alignment with stakeholder expectations.

> " You need to set the expectation that the app will evolve over time—what you start with won't be the final version. Open conversations with stakeholders, advertisers, and revenue partners will be essential to guide this evolution effectively.
>
> *– Government Stakeholder*

Section 7

Business Requirements

Diverse stakeholder input drives an overwhelming list of functionality requests, underscoring the need for focus to ensure feasibility and impact.

Request for Services Local Ambassador/Service Integration Resources for disabled visitors Sustainable/Responsible Tourism Education

Webcams of popular spots Real-Time Updates and Visitor Assistance Drowning Prevention Tips Kualoa Ranch Private Nature Reserve

Local / Community Event Calendar Iolani Palace Features for Local Residents Emergency Preparedness Information and Response Fees and Payments System

Visitor Satisfaction Surveys Personalized Trip Planner Interactive Digital Mapping ʻĪao Valley State Monument

Visitor Educational and Informational Content USS Arizona Memorial Programs Cultural Storytelling (Local Stories) Pidgin English Translator

Kīlauea Point National Wildlife Refuge Hawaiian Language Resources Ford Island Bus Tour Hawaiian Word of the Day Curated Audio Tours Panic Button

Social Media Integration Local Cuisine and Dining Diamond Head State Monument Hawaiʻi GPT Integration with Platforms and Government Resources

Local Attractions / Lesser-Known Attractions Directory Geolocation Alerts and Insights County-Specific Versions Heat Mapping Top 10 Attractions

Capacity and Congestion Management Lyon Arboretum Donation Feature Geolocation and Navigation Explore Outdoor Oʻahu

Locals/Resident-Only Access Augmented Reality Nāpali Coast State Wilderness Park Comprehensive Reservation System Traffic and Travel Updates

Weather Updates and Surf Reports City and County of Honolulu Camping Reservations Wayfinding Features Job Postings

Comprehensive Listings Free Activities Directory Real-Time Alerts and Notifications Staycation Promotion State of Hawaiʻi Camping Reservations

Short-Term Rental Integration Pearl Harbor National Memorial Local and Hawaiian-Owned Business Directory Behavioral Guidelines

Destination Information Location-based Services Biki Bike Integration Visitor Guidance / Local Tips Hawaiian Homestead Information and Education

Directory of Local Nonprofits Queen Emma Summer Palace Cruise Line Integration Cultural Education and Resources Safety Information

Digitized Agriculture Forms Incentive Programs and Gamification Cultural Experiences Park Reservation System Integration Visitor Flow Management

Hāʻena State Park Influencer & User-Generated Content Parking Availability & Management Haleakalā National Park

Sustainable and Eco-Tourism Experiences Wai'ānapanapa State Park Peer-to-Peer Ratings Vendor/Attraction Directory

Waimea Valley Visitor Tracking Hanauma Bay Nature Preserve Private Sector Activity Booking Waikīkī Aquarium Local Laws and Regulations

Public Transit Integration Route Suggestions Dynamic Pricing Live Support Volunteer and Community Service Opportunities

Exclusive App Events and Programs Environmental Conservation and Green Initiatives Ocean Safety Information

Retail/Vendor Marketplace Wellness and Mindfulness Redirection to Safer Attractions/Alternative Activities

The large list of features and functionality identified by stakeholders was methodically narrowed down to create a more relevant and feasible list focused on features that might have the highest impact on destination management and visitor experience.

Analyze, Aggregate, Consolidate, and Prioritize

Input
- Interview process gathered 100+ features and functionality from the stakeholders

Analysis
- Unique features were analyzed, reviewed, consolidated and simplified into a list of 25

Focus
- These 25 were then categorized into groups and prioritized using a Prioritization Framework

Prioritization Framework

Features and Functionality are evaluated based on two key dimensions:

1. **Destination Management**: How well the feature supports effective management of the location.

2. **Visitor Experience**: How much the feature enhances visitor experience.

Prioritization Approach

- Features scoring high in both areas are identified as **core elements** and prioritized for implementation.

- Other features are assessed based on their specific value to either Destination Management or Visitor Experience.

Definitions Used

Destination Management
Refers to tools that improve the operational and logistical management of a destination, such as congestion control, reservations, and transportation systems.

Visitor Experience
Relates to features that enhance the enjoyment, engagement, and satisfaction of visitors, such as curated cultural content, social interaction, and ease of navigation.

Note: These determinations can be somewhat subject, and our prioritization is based on our interviews, research and industry expertise. But ultimately there will need to be a steering committee to make the final assessment. the potential for competing interests, differing priorities, and the challenge of balancing diverse stakeholder perspectives to achieve consensus.

The top features and functionality were grouped into 9 broad categories.

Local and Cultural Experiences

Cultural Experiences

Education

Hawaiian Word of the Day

Hawaiian Language Resources

Hawaiian Homestead Information and Education

Pidgin English Translator

Cultural Storytelling (Local Stories)

Sustainable and Eco-Tourism Experiences

Environmental Conservation and Green Initiatives

Top 10 Attractions

Local Attractions / Lesser-Known Attractions Directory

Curated Audio Tours

Events Calendar

Free Activities Directory

Comprehensive Listings

Community and Social Features

Local Ambassador/Service Integration

Volunteer and Community Service Opportunities

Directory of Local Nonprofits

Features for Local Residents

Local / Community Event Calendar

Locals/Resident-Only Access

Incentive Programs and Gamification

Exclusive App Events and Programs

Social Media Integration

Influencer & User-Generated Content

Visitor Engagement and Assistance

Destination Information

Visitor Guidance / Local Tips

Peer-to-Peer Ratings

Live Support

Personalized Trip Planner

Augmented Reality

Hawai'i GPT

Visitor Satisfaction Surveys

Wellness and Mindfulness

Reservations and Capacity Management

Park Reservation System Integration

Comprehensive Reservation System

Capacity and Congestion Management

Dynamic Pricing

Visitor Tracking

Visitor Flow Management

Parking Availability & Management

Heat Mapping

Real-Time Information and Alerts

Real-Time Alerts and Notifications

Weather Updates and Surf Reports

Traffic and Travel Updates

Geolocation Alerts and Insights

Redirection to Safer Attractions/Alternative Activities

Real-Time Updates and Visitor Assistance

Panic Button

Emergency Preparedness Information and Response

Safety Information

Ocean Safety Information

Behavioral Guidelines

Webcams of Popular Spots

Retail, Food, and Business Integration

Local Cuisine and Dining

Vendor/Attraction Directory

Local and Hawaiian-Owned Business Directory

Retail/Vendor Marketplace

Donation Feature

Navigation and Location-Based Services

Wayfinding Features

Interactive Digital Mapping

Geolocation and Navigation

Route Suggestions

Travel Purchases

Air Tickets

Hotels

Car Rental

Activities

Vacation Rentals

Transportation

Public Transit Integration

Biki Bike Integration

Rideshare Integration

This priority quadrant framework helped us identify priorities and define initial business requirements. The analysis highlights features that score highly in visitor experience and destination management.

Visitor Experience (vertical axis)

Enhancement
Visitor Engagement and Assistance
Local and Cultural Experiences
Community and Social Features

Core
Reservations and Capacity Management
Real-Time Information and Alerts
Navigation and Location-Based Services
Multilingual Capability

Opportunities
Retail, Food, and other Business Integration

Support
Transportation
Travel Bookings (Activities, Hotel, Car, etc)

Destination Management (horizontal axis)

Monetization and improved functionality through third-party partnerships or direct sales had mixed views, but is generally seen as a future phase priority and fell in the support function of our quadrant framework in the previous page.

Governance and Strategic Risks

- **Integrity:** Monetization may conflict with cultural and environmental goals.
- **Conflict of Interest:** Risk of favoring certain businesses, alienating smaller players.
- **Revenue Distribution:** Questions about fair sharing of profits with local businesses.
- **Over-commercialization:** Risk of shifting focus from core cultural and environmental missions

Operational and Technical Challenges

- **Quality Assurance:** Inconsistent service quality from third-party providers.
- **Integration Complexity:** Technical difficulties with external booking systems.
- **Data Privacy Risks:** Risks of non-compliance and user data misuse by third parties.

User-Centric Concerns

- **Resistance to Paid Features:** Users may reject paid features without clear value.
- **Fragmented Experience:** Redirecting users to external sites disrupts user journey.
- **Trust and Security:** Users may hesitate to trust third-party vendors.

Financial and Legal Risks

- **Liability Issues:** Unclear responsibility for issues with third-party services.
- **Monetization Fairness:** Balancing revenue generation with fairness and accessibility.

"If we focus on making money, we risk sidelining what makes Hawai'i special—its unique cultural heritage." (Tourism Stakeholder)

"Visitors already feel like they're spending a lot. Adding paid features could deter them unless the app's benefits are immediately obvious." (Environmental Stakeholder)

"How will profits be split? We need to ensure local businesses see tangible benefits." (Business Stakeholder)

"The app's reputation will depend on third-party quality, but we can't control them directly." (Tourism Stakeholder)

"Who's responsible if a tour booked through the app cancels or fails to meet expectations?" (Legal Stakeholder)

"We don't want the app to feel like just another marketplace. It should stay rooted in Hawai'i's identity." (Cultural Stakeholder)

"If third parties mishandle user data, the app's credibility will take a hit." (Technology Stakeholder)

While most of these concerns and issues can be addressed or mitigated it was mentioned numerous times that this should be a secondary and not primary goal, and initially the focus should be on highest priority areas.

How these items are categorized can be subjective, below is the rationale used, a similar process should be utilized by the team who will be leading this project.

Category	Priority Level	Reason
Real-Time Information and Alerts	Core	Enhances visitor decision-making (e.g., safety, weather) and aids destination management (e.g., congestion).
Navigation and Location-Based Services	Core	Simplifies visitor navigation while providing operational insights for geolocation and flow management.
Reservations and Capacity Management	Core	Ensures smooth visitor flow, prevents overcrowding, and benefits both visitors and operational logistics.
Transportation	Support	Improves logistics and infrastructure but has limited direct impact on visitor satisfaction.
Fees and Payments Systems	Support	Streamlines administrative processes for destinations but lacks engaging or transformative visitor benefits.
Visitor Engagement and Assistance	Enhancement	Improves visitor satisfaction with features like live support but has limited management utility.
Local and Cultural Experiences	Enhancement	Immersive experiences enrich visitor enjoyment but don't directly impact operational management.
Community and Social Features	Enhancement	Engages visitors socially and fosters community but has little impact on destination logistics.
Travel Purchases	Low Priority	Transactional in nature; limited value to visitor experience and no significant operational impact.
Retail, Food, and Business Integration	Low Priority	Focused on transactions; connects visitors to vendors but doesn't elevate experience or improve logistics.

With the potential challenges of this project, the recommended approach is to develop in phases with focus on highest priority ones that will enable the launch of a Minimum Marketable Product (MMP).

Definition: Minimum Marketable Product
Has specific characteristics that distinguish it from other product development stages. These characteristics ensure that the product is not only viable but also ready for the market, with enough value to attract customers and generate feedback.

Phased Approach

- Ideation and Research (In Progress)
  - Understand market and customer needs
- Concept and Prioritization (In Progress)
  - Define the core features for the MMP
- Development and Design
  - Build the MMP focusing on essentials
- Testing and Quality Assurance
  - Ensure the product is functional and stable
- Launch and Entry
  - Release to early adopters, track performance
- Feedback and Iteration
  - Gather insights and refine
- Scaling and Expansion
  - Grow the product features and markets

Characteristics

- Version of a product that has enough features to be launched to the market and is valuable enough to generate customer interest and feedback
- It is essentially a product that is not only viable but also has the core features necessary to fulfill customer needs and be marketable
- Balances simplicity, usability, and market readiness to achieve early validation and feedback

Goals

- Launch a Market-Ready Product
- Validate Market Demand and Fit
- Generate Customer Feedback on Core Features
- Build Brand and Market Presence
- Minimize Risk of Over-Development
- Set the Stage for Future Growth
- Minimize Risk and Uncertainty

> " I think it needs to be clear. I think it needs to be a phased approach. I think that there need to be very clear expectations for your phase one, your phase two, your phase three.
>
> *– Supplier Stakeholder*

Key Takeaways Business Requirements

✓ **Diverse Stakeholder Input**
Multiple stakeholders from various constituencies contribute a wide range of feature and functionality requests.

✓ **Feasibility Through Focus**
To develop a feasible approach, it is essential to narrow down requests based on clear, defined criteria.

✓ **Guiding Framework**
The priority quadrants provide a clear framework for the requirements team to evaluate and prioritize features moving forward.

✓ **Refine Feature Selection**
Use the priority quadrants to finalize the list of features, focusing on core and high-value support items.

✓ **Develop Implementation Plan**
Outline a phased approach for feature development, ensuring alignment with stakeholder priorities and resource availability.

> " The state's already referring to this as a second coming of the Go Hawaiʻi app... but I don't think it can be the 'everything-all-in-one' app.
> *– Tourism Stakeholder*

> " If the app focuses on solving real visitor problems and providing experiences that enhance their understanding and appreciation, that's what will make it successful.
> *– Technology Stakeholder*

Section 8

Technology and Operations

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Ensuring the app's success will be less about technology and more about organizational alignment and long-term support.

As the array of apps and digital tools currently available to Hawai'i visitors demonstrates, many groups have produced tools for their target audiences.

- What is more challenging is building an organizational architecture that supports HTA's long-term vision and the app's continued success. Elements of this architecture include:
  - Aligning stakeholders around the core objectives of this initiative
  - Ensuring all departments buy in to the app's goals and direction
  - Developing the right requirements to meet traveler needs
  - Driving downloads and usage by travelers
  - Establishing governance and ongoing support for this initiative to ensure its long-term success and sustainability
- Failing to address these core foundational issues will likely undermine the app's success long-term

> " It's difficult to maintain relevance for an app over time if there's no ongoing content generation or organizational commitment to keep it alive. Success comes from focusing on the bigger picture and consistent effort.
>
> **– Tourism Stakeholder**

Delivering a successful app requires a well-structured strategy and operational framework aligned with HTA's long-term objectives.

Strategy

Envisioning the future

- Market, customer, and operational insights
- Vision & values
- Growth & scalability
- Competitive landscape
- Potentially disruptive technologies and business models

Business Architecture

Defining your approach

- Vision & strategy articulation
- Customer journey definition
- Capability mapping & assessment
- Operating model design
- Organization design
- Process & technology roadmap

Tech and Operations

Putting it into practice

- Technology implementation
- Process development
- Human capital management
- Data architecture
- Project/program management

> " Start small...take an MVP approach and go iteratively and baby steps, you know, product test, all of that
> — *Community Stakeholder*

Interviews highlight reservations as one of the most important features, but this capability is already available to visitors through various alternative sources.

Hawai'i's current offering represents a scattered user experience across widely disparate platforms, and in some cases a strong desire to maintain independent reservation systems.

To drive downloads and adoption, HTA should aim for a selected solution that improves the visitor experience and doesn't simply compound the existing, highly fragmented environment.

Potential approaches include:

Option 1	Option 2	Option 3
Unify reservations experiences and systems into a single, distinct platform (ideally, connecting to disparate systems via APIs while providing visitors with a unified front end).	**Link** to existing reservations experiences from within a single portal application,.	Offer visitors a **hybrid experience**, developing a unified front end for some "coalition of the willing" reservations partners, and linking to others where time-to-market, cost, or other operational challenges make an integrated solution unfeasible.
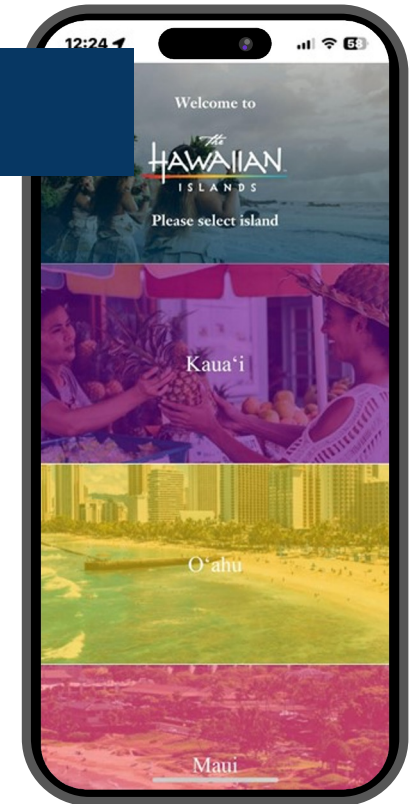
Implementing reservations for hotspot, widely cited as the a critical way to improve destination management, hinges on strategic planning, community buy-in, and strong execution.

Technology is a tool, not the solution.

Groundwork must be laid*
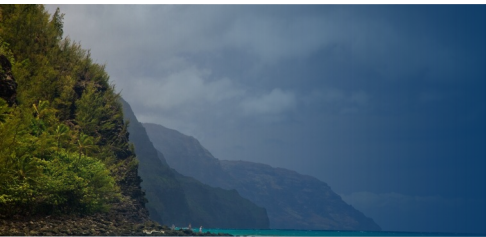
- Operational plans must be developed before implementing a reservation system on an app or website.
- A designated leader will be required to guide the development of these operational plans.
- Only after operational plans are finalized should discussions begin about integrating the reservation system with the app.
- Departments have expressed a strong preference to maintain control over existing reservation systems, necessitating a technical solution to link these systems to the app.
- For future sites, offering a centralized reservation system may be considered for those that prefer not to manage their own.
- This appears to be under way, as per Representative Quinlan has been quoted as saying that he has "asked all the counties to come up with three county parks that they would like to convert to a reservation system for the visitors."
- The heavy lifting will not be the technology but the on the ground decisions of how to manage the site(s).
- The Hāʻena State Park case study highlights the importance of a community-based approach, which can be time-intensive.

* "The Transformation of Haena State Park: A Case Study"

Haena State park is an example of the heavy lifting on-the ground that needs to be done before any technology system can be implemented.

Technology is a tool, not the solution.

> " As you can see from this Hāʻena State Park case study, this was not an easy journey to undertake… The most important thing is to bring the key stakeholders together. Do not short-cut the process of identifying who needs to be involved. About 15-20 members attended every meeting that we scheduled. Every member contributed to the process and the outcomes.*
> -   *Nadine Nakamura, House Speaker, State House of Representatives, District 15*

Hāʻena State Park Key Learnings*

Build Trust and Strong Relationships
Decades of collaboration and trust enabled successful plan implementation.

Fund and Develop Appropriate Plans and Roadmaps
Clear plans and community buy-in guided effective visitor management.

A Good Planning Process Strengthens Community
Inclusive, iterative planning builds community cohesion and ensures shared ownership of solutions.

Involve People Who Aren't in It for Recognition or Compensation
Unrecognized individuals contributed their dedication and resources to drive lasting solutions.

Leadership
Strong leaders unified stakeholders, resolved conflicts, and ensured successful implementation.

Facilitation
Effective facilitation, supported by strong logistical commitment, ensured stakeholder engagement over years of planning.

Unintended Consequences
Agencies must carefully consider the broader, unintended impacts of their decisions and work collaboratively to address them.

- Current hotspot sites that have reservations have chosen different technology as their reservation solutions.

- There is an opportunity to unify under a single technology for economies of scale, and interoperability. But interviews indicated there would likely be resistance to this.

- Going forward, where possible, it is recommended that all new sites that develop an operational plan and are ready to take reservations, use one of the existing platforms or choose platform that will be used by sites going forward.

* "The Transformation of Haena State Park: A Case Study"

The cost and effort involved in this project will clearly depend on the overall scope, but some cost efficient ways exist to create an MMP product potentially by building on top of "out of the box" solutions or utilizing existing vendors/platforms.

Multiple vendors — including some currently working within the Hawaiʻi tourism market — offer extant platforms that may address identified product needs including, but not limited to:

Reservations for key attractions

Real-time alerts and notifications

Sustainable/responsible tourism education

Behavioral guidelines

Visitor educational and informational guidelines

Cultural education and resources

Navigation and wayfinding

Geolocation alerts and insights

Traffic and travel updates

Route suggestions

Visitor preference management and personalization

Volunteer and community service opportunities

It appears likely that HTA has the greatest opportunity for success by focusing on a well-executed application that meets visitor needs and business objectives.

It may best be served by focusing on improving what already exists.

Access to data, whether from public or private partners, will play a key role in delivering a successful app experience.

HTA cannot provide a holistic experience without data from its partners, nor can it personalize the visitor experience without gaining data from those visitors.

HTA must plan a robust data architecture to ensure its app solution has timely, accurate access to necessary information about its island partners and visitors

An effective data strategy includes:

Alignment with business strategy What is it HTA is actually trying to accomplish?	**Governance** How does HTA make decisions about how to use the data?	**Quality** How does HTA make sure that it's got the "right" data?
Access Who can use the data and for what purposes?	**Security** How can HTA assure that the data does not pose risks to its customers, stakeholders, and the organization itself?	**Change management** How can HTA ensure that its people are equipped with the necessary skills and knowledge to use its data most effectively?
Training What do people need to know about its data and how to best put it to work?	**Analysis** What is the data telling us about our visitors and our organization?	**Reporting** How does HTA communicate what the data tells it?

> " The challenge is going to be: how do you make sure, number one, [that] the data [going in] is not garbage, right? [Because] if the data [going in] is garbage, [the output will] still be garbage. And so, if you cannot upkeep the data that's going in there, then you're going to have a problem...
>
> – *Community Stakeholder*

Despite potential challenges, multiple approaches to build an effective app exist which will allow HTA to reach its goals.

	Build New App		Extend Existing Apps	
	Pros	**Cons**	**Pros**	**Cons**
App provides single source of truth/holistic visitor experience	• Puts more wood behind fewer arrows, maximizing HTA efforts • Reduces fragmentation among visitor experiences	• No existing equity among visitors or stakeholders, increasing marketing efforts • Must compete with existing apps in marketplace • Connecting widely disparate stakeholders and visitor experiences make this solution costly and time-consuming to build and maintain • Difficult to manage operational issues (e.g., bad experience at location)	• Benefits from existing app adoption • Leveraging existing features reduces development time and cost	• Connecting widely disparate stakeholders and visitor experiences make this solution costly and time-consuming to build and maintain • Difficult to manage operational issues (e.g., bad experience at location) • Key functionality likely doesn't exist and will still require development time and cost
Portal (link to existing apps)	• Significantly lower cost and development timeline • Operational issues managed by partner locations, reducing operational load on HTA resources	• Likely introduces more limited and divergent visitor experiences • No existing equity among visitors, increasing marketing efforts • Must compete with existing apps in marketplace	• Benefits from existing app adoption • Significantly lower cost and development timeline • Operational issues managed by partner locations, reducing operational load on HTA resources	• Key functionality likely doesn't exist and will still require development time and cost • Likely delivers more limited and divergent visitor experiences
Hybrid	• May offer "best of both worlds" path, connecting deeply with "coalition of the willing" partner experiences for better visitor experience, while simplified development/management efforts for HTA • Reduces, while not entirely eliminating, fragmentation among visitor experiences	• May still be costly and time consuming to build • No existing equity among visitors, increasing marketing efforts • Must compete with existing apps in marketplace	• Benefits from existing app adoption • Again, may offer "best of both worlds" in terms of development time and cost • Reduces, while not entirely eliminating, fragmentation among visitor experiences	• Key functionality likely doesn't exist and will still require development time and cost • Likely delivers some limited/divergent visitor experiences

Several app developers, including those already working with Hawai'i government departments or experienced in destination apps, may be well-equipped to create an app like this.

Working with an experienced developer will help reduce cost and time to market.

Vendor	Tourism experience	Hawai'i market experience	Notes
True Omni Current partner for GoHawai'i.com Client Example: GoHawai'i.com	✔	✔	Long-time experience in market via the GoHawai'i app. Clear understanding of existing challenges around launching and supporting an app long-term
Accesso Provider of ticketing, point-of-sale, virtual queuing, and guest experience management solutions. Client example: IKON Pass	✔	✔	Significant expertise with mobile apps for tourism and geospatial solutions using mobile. They also appear to have a broad, genuine understanding of the Native Hawaiian population through their long-standing work with the Polynesian Cultural Center.
VisitWidget Most popular DMO app developer Client example: Visit Florida, Visit Lake Tahoe	✔	✖	Significant experience building in-market solutions for DMOs and individual venues. In-market solutions for public, private, and private-public partnerships at the state, county, city, and individual private entity level.
Phunware Cloud platform for mobile, enabling brands to engage, manage, and monetize their audiences. Client example: Atlantis Paradise Island Bahamas, Wailea Beach Resort	✔	✔	Popular SaaS app platform supporting, among other features, mapping, navigation, wayfinding, content management, personalization, geofenced messaging using beacons or GPS across outdoor venues, retail, and entertainment spaces.
Merit Currently in discussions with C&C about a similar "smart app" initiative. Client example: Tennessee Department of Labor and Workforce Development	✖	✖	Merit's lack of tourism and Hawai'i experience is a significant drawback. However, they have broad experience in building apps with government partners and understand the data space well. They may represent a solid subcontractor/consulting partner for developing components of the app.

All listed vendors offer off-the-shelf components and provide customization to the needs of the specific client. Alqimi and others were also evaluated but not included at this stage.

Native apps generally offer richer experiences, but other approaches may help HTA better meet its long-term goals for its app initiatives.

Core features and functionality, time-to-market, and cost must play a key role in determining HTA's best approach.

	Native App	Progressive Web App (PWA)	Responsive Website
Pros	• Generally higher performance than alternatives • Significantly better offline functionality • Full (or relatively full) access to device features such as GPS, camera, accelerometer, etrc. • Enhanced device access generally allows for more engaging experience	• Cross-platform compatibility simplifies development and maintenance • Can offer offline access to at least some features • Lightweight codebase typically requires less device storage and faster downloads • Simpler discovery through traditional search engines • Often more cost effective than native apps to build and maintain • No app store requirements streamlines update process	• Accessible to all devices without download or installation • Cross-platform compatibility simplifies development and maintenance • Easily discoverable throughout traditional search engines • Updates appear immediately for all users • Typically the least expensive/most cost-effective mobile development method
Cons	• Significant development and marketing costs to launch and maintain • Slower time to market • App store approval process can be time-consuming and may limit features/functionality and easy discovery • Frequent iOS and Android technology and app store approval policies require regular updates	• Decreased access to device features, such as GPS, and particularly on iOS • Performance, particularly on graphics-intensive tasks may be subpar compared with native apps • Browser dependencies may limit some functionality on some devices	• Limited access to device hardware reduces specific features and may diminish user experience • Essentially no offline access • Responsive websites generally exhibit lowest performance among alternatives, particularly for feature-rich applications

Visitors may not always have connectivity or have the app installed. A comprehensive strategy requires managing communications and driving action across the information space.

Instead, success in these initiatives likely requires a holistic approach to visitor experience across an array of touchpoints to meet the visitor where they are in their digital and physical journey.

Due to download and usage rates, an app alone may not be sufficient to accomplish HTA's overarching goals.

How can HTA connect with visitors throughout their visit?

" PWA, SMS, Facebook, WhatsApp, digital signage, kiosks, etc. have to be part of the overall strategy
– Technology Vendor

Successful app development and launch also depends on eliminating/mitigating likely risks.

HTA must develop sufficient plans to eliminate and mitigate the risks detailed in Appendix Section 8: ("Smart Tourism Risk Matrix" spreadsheet) as part of its development/launch process.

Likelihood	Low Impact	Medium Impact	High Impact
High	Low (Mitigate or Accept)	Medium (Mitigate)	High (Eliminate)
Medium	Low (Mitigate or Accept)	Medium (Mitigate)	High (Eliminate)
Low	Low (Mitigate or Accept)	Low (Mitigate or Accept)	Medium (Mitigate)
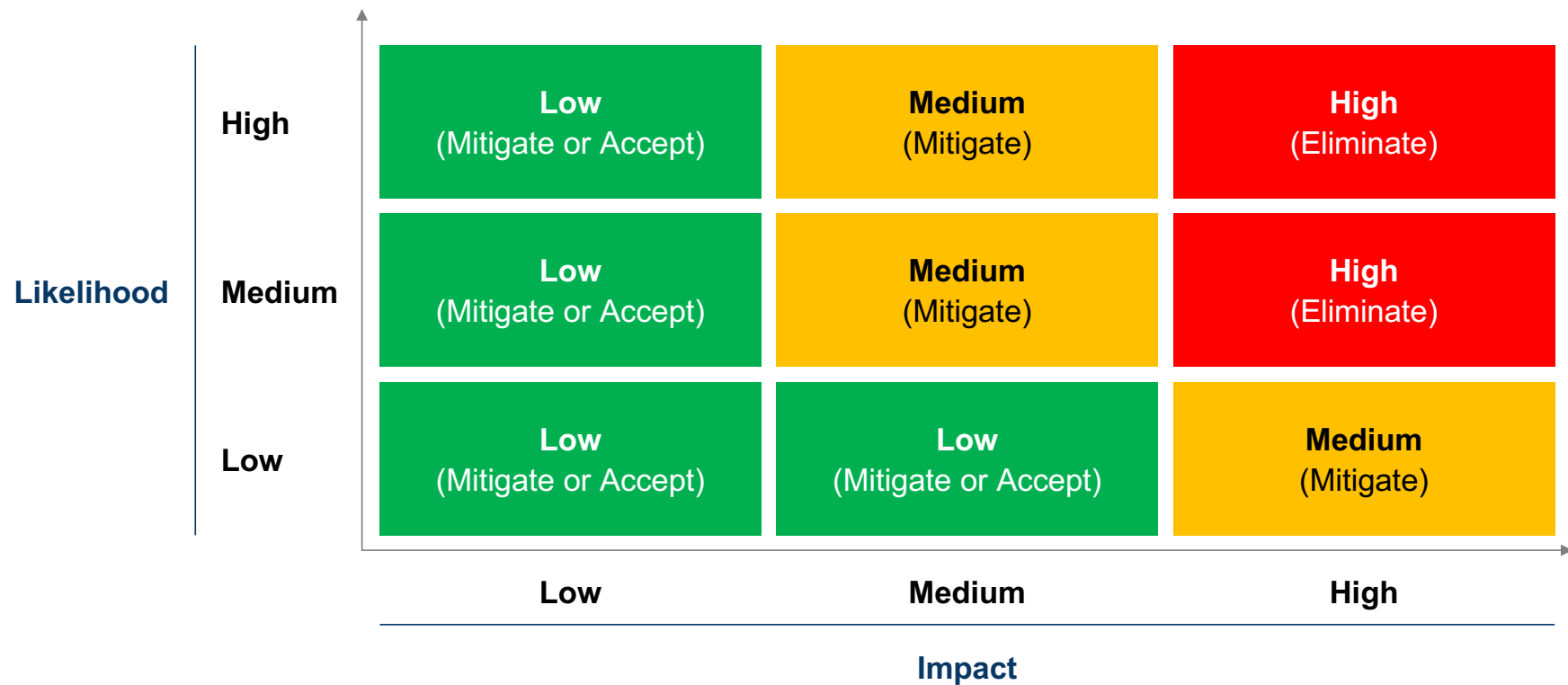
Impact

Based on stakeholder interviews, potential risks were identified and organized into a matrix to guide mitigation efforts.

Possible Risks, Problems, and Challenges	Risk Likelihood	Risk Impact
Privacy and Data Security Concerns	3 - High	3 - High
Stakeholder Alignment and Priority Conflicts	3 - High	3 - High
Technical Integration and Maintenance Challenges	3 - High	3 - High
Inconsistent Government Ownership and Bureaucratic Complexity	3 - High	3 - High
Funding and Long-Term Sustainability	2 - Medium	3 - High
Ensuring Resident and Community Inclusion	2 - Medium	3 - High
Content Curation and Cultural Sensitivity	2 - Medium	2 - Medium
Negative Public Perception and Marketing Gaps	2 - Medium	2 - Medium
Competition with Established Platforms	2 - Medium	2 - Medium
Balancing Visitor and Resident Needs	2 - Medium	2 - Medium
Economic Equity Concerns	2 - Medium	2 - Medium
Monetization Risks	2 - Medium	2 - Medium
Emergency and Crisis Response Preparedness	2 - Medium	2 - Medium
User Adoption and Engagement	2 - Medium	2 - Medium
Over-Ambition and Scope Creep	2 - Medium	1 - Low
Adapting to Visitor Tech Limitations	1 - Low	2 - Medium
Balancing Legislative and Commercial Objectives	1 - Low	2 - Medium
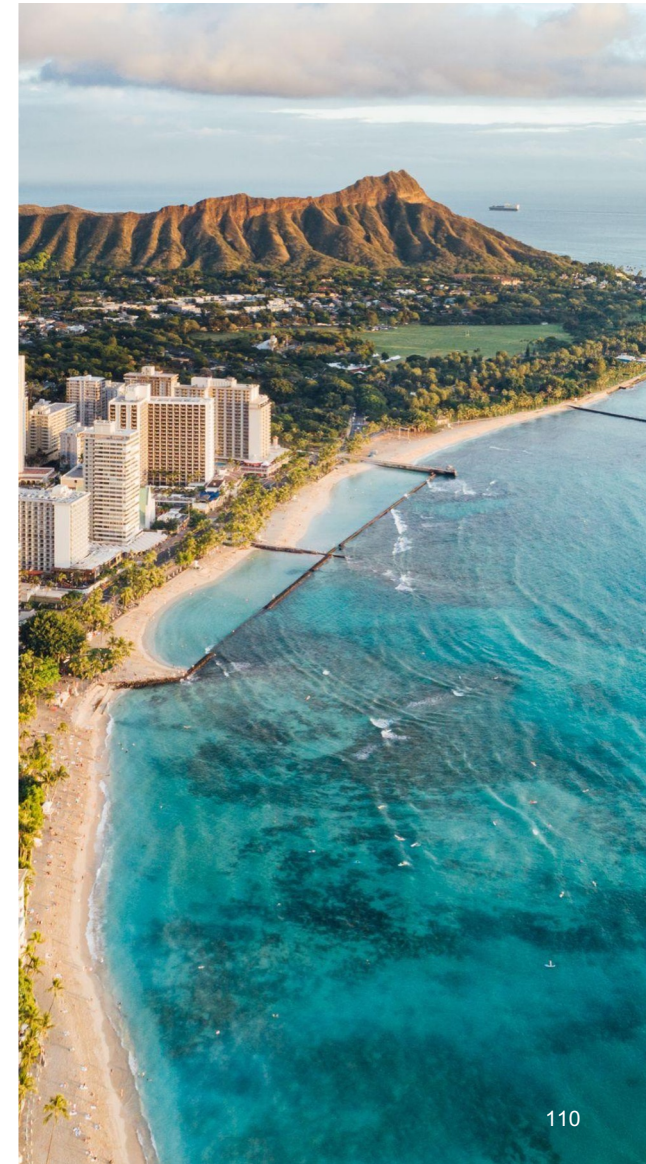
HTA's initial app development budget should be limited and focus on time-to-market to gain early feedback from the target audience.

Open ended projects can rapidly consume significant budget without necessarily delivering against core objectives.

- Given the current diverse set of possible requirements, potential development partners offered a wide range of costs from mid six figures to several million dollars.

- All advised that any app effort place limits around the budget and timeline to focus on developing a truly minimum marketable product.
  - Many stated that it's a mistake to try and provide "all things to all people."

  > " If ChatGPT can do it, the app should not.   *– Senior App Developer*

  > " No one likes a kitchen sink app. Everyone's talking about a 'super app,' but those don't really work here.
  >
  > *– Technology Stakeholder*

- HTA is likely better served releasing an app solution relatively quickly and inexpensively so it can rapidly learn what's working and what's not, then develop updates specifically targeted at addressing adoption/usage concerns.

> " Set a timeline for release to manage budget and meet project objectives.
>
> *– Technology Stakeholder*

Depending on the selected solution, maintaining HTA's app will require continual investment, totaling roughly 20%-35% per year of its initial investment.

Launching an app is only part of the solution. HTA must also keep pace with the market and changing visitor expectations.

- "Ongoing maintenance and updates" along with "system integration across stakeholders" and "data standardization/API integration" was the most commonly cited technology challenge among experts surveyed for this report

- The median update period for the Top 200 apps on iOS is 18 days
  - The most popular apps typically **update every 3 to 6 weeks**

- Apps with more regular updates generally gain more downloads and greater retention than those with less regular updates
  - Research shows that apps with frequent updates have greater user satisfaction (75% vs 30%) user satisfaction rating and **4 times the retention of apps** updated less frequently

- Even if HTA managed to deliver a perfect app experience at launch, Apple and Google regularly introduce operating system changes requiring app updates

- HTA must also account for ongoing content creation and translation costs

- Anticipate major upgrades every 3-5 years comparable to initial launch budget
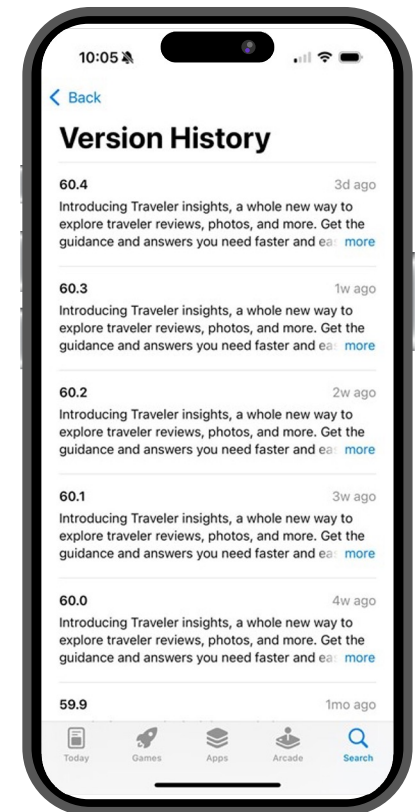
HTA should expect to introduce and launch major updates to its app experience every 3-5 years, representing additional expenditure comparable to its initial launch and release budget.

- Consumers upgrade their phones every 2-3 years on average
- Each year, phone manufacturers offer consumers bigger phones with larger and brighter screens, longer battery life, faster network access, and more powerful processors
  - For instance, 5G networks are already 5 years old and 6G networks — and their associated mobile devices — will start coming online in 4-5 years from now (late 2029-early 2030)
  - Phones released in 2024 are significantly faster and more powerful than those from just 2-3 years ago
- Consumers expectations for mobile devices and apps shift as new technologies come to market
  - The app experience HTA's users expect will likely be dramatically different in 2028 than they are today
- Additionally, iOS and Android app stores also remove "outdated" apps
  - Apple's developer documentation specifically states that "**apps that have not been updated within the last three years and fail to meet a minimal download threshold** — meaning the app has not been downloaded at all or extremely few times during a rolling 12 month period — receive an email notifying them that their app **has been identified for possible removal from the App Store**."
- HTA's business plan and app roadmap must plan for these long-term shifts or risk failing to keep up with user and manufacturer expectations

> 66 When the app becomes obsolete rather quickly if it's not used and maintained and updated, you know, on a daily basis. The truth is, apps require constant maintenance. Technology changes rapidly, and if you don't stay ahead of that curve, even something you launch today might feel outdated in a few months.
>
> - Apps & Technology Stakeholder

The Wild Card: Generative AI may reshape the app landscape, enhancing user experiences while potentially reducing reliance on traditional app functionality as users shift toward AI-driven platforms. Integrating AI capabilities can help apps stay relevant and competitive.

Generative AI is Changing the Landscape
- Dynamic, AI-driven interfaces may replace traditional app functionality.
- Users increasingly interact with platform-independent AI systems (e.g., ChatGPT, virtual assistants).

The Role of Generative AI in Augmenting Apps
- Enhanced User Experience: AI-driven personalization and real-time content creation.
- Operational Efficiency: Automated workflows, data analysis, and optimization for better app performance.
- Content and Insight Generation: AI can provide customized travel itineraries, recommendations, and insights directly to users.

Risks of Staying "Traditional"
- Obsolescence Threat: Competitors leveraging AI may offer more dynamic, adaptable solutions.
- Shifting User Expectations: Users may prefer AI-powered interfaces over static apps.

Strategic Considerations
- Work with vendor partners to understand their AI strategy.
- Design the app with modularity for easy integration of AI features.
- Experiment with AI Augmentation: Start small with features like AI chatbots, itinerary generators, or data-driven recommendations.
- Future-Proof the Technology Stack: Prioritize APIs, scalability, and interoperability with AI systems.
- HTA is currently evaluating various AI platforms and services.

> " With AI engagement, I can just wake up tomorrow and say, 'Hey, Siri, I want to go to the beach, tell me the best beaches to go to today, based on wave pattern, current conditions, etc. ChatGPT can already tell me this. So, is this an app, or is it the next iteration of an innovation network that leverages AI?
> *-Tourism Stakeholder*

> " AI could help make visitors smart, ensuring they are educated at the right place and time through curated content. With an app tied to AI, we can offer personalized, location-based recommendations that adapt dynamically as tourists move across the islands."
> *–Technology Stakeholder*

Key Takeaways: Building a Successful App is a Matter of Planning

Apps are not just a technology initiative. App developers must account for an array of strategic, business, and user needs, including:

✓ **Organizational alignment**
The organization must put together the right governance structure to address the needs of its constituents and stakeholders.

✓ **Strategic vision and focus**
Failing to identify and articulate key drivers of app downloads, adoption, and use may hinder the app's success before anyone writes a single line of code.

✓ **Core features and functionality**
Visitors and residents face a myriad of possible apps to meet their needs. How is this initiative providing utility beyond what already exists in the marketplace?

✓ **Go-to-market approach**
Building a new app is time-consuming and expensive. Extending an existing app may provide faster time-to-market, but risks distracting from the organization's core mission.

✓ **Identifying appropriate partners**
Any app solution will require working with competent, experienced developers aligned with HTA's vision.

✓ **Effective data strategy**
Ensuring that the app has access to the right data at the right time to meet user needs and drive users towards business goals.

✓ **Development platforms**
A PWA or responsive mobile website may provide a better long-term approach to meet business and customer needs and must be considered.

✓ **Risk mitigation**
HTA must review risks to the initiative and develop appropriate plans that eliminate or mitigate those most likely to cause impacts to its objectives.

✓ **Budget for development and maintenance**
Integrating AI capabilities is essential to future-proofing the app, ensuring it remains relevant as user preferences shift toward dynamic, AI-driven platforms.

✓ **Impacts of AI and Need to "Future Proof"**
Allocating budget for the full lifecycle of the app beyond just its initial development and launch is critical for long-term success.

Section 9

Recommendations and Next Steps

End-user research was outside the scope of this project, but given that this report is heavily stakeholder-driven, conducting such research could provide valuable insights into end-user desires, expectations and potential usage.

Current Insights on User Adoption and Acceptance

- Stakeholder interviews provided preliminary perspectives on potential user interest and challenges.
- Due to their roles, stakeholder perspectives are inherently biased and may not fully reflect the broader user base or community viewpoints.
- Global DMO app analysis highlights common challenges like driving user adoption and sustaining engagement.

Recommendations for Future Study

- Conduct a user survey, study or focus groups to evaluate interest and identify priority features from end user perspective.
- Assess potential barriers to adoption, such as technology access or willingness to use the app.
- Estimate app usage to support business case development and inform marketing strategies.

As Hawaiʻi moves forward with its Smart Tourism strategy, aligning with partners on other active tourism and technology initiatives will be essential to creating a cohesive and sustainable Smart Tourism ecosystem.

Enhancing Stakeholder Engagement to Ensure Success

- Collaboration with key stakeholders at all stages of the project will not only enrich the development process but also help Hawaiʻi Tourism Authority (HTA) gain the support needed to make this initiative a success.

- By fostering open dialogue and regularly updating the community, HTA can build trust and increase awareness of the project's value to Hawaiʻi.

Community Involvement as a Priority

- Many stakeholders expressed a strong interest in continuing to be a part of the Smart Tourism initiative, emphasizing the need for community involvement throughout the process.

- Involving community members allows them to provide valuable feedback and insights, helping to shape Hawaiʻi's app solution that genuinely addresses local needs and values.

> " Educating our communities about how Smart Tourism initiatives benefit Hawaiʻi is essential. Many positive efforts go unrecognized because we're not effectively communicating where tax dollars are going or the advantages of certain policies, like reducing traffic with motor coaches. People aren't fully aware because we haven't shared this information in a way that resonates with them.
>
> –Government Stakeholder

Establishing a clear path for mission, vision, and strategy is not possible without having a relatively small steering committee to make hard decisions as to what the overall objective and goal of the initiative is.

Analysis Purpose

One of the goals of this analysis was to gather input to draft a vision, mission, and strategic goals.

- Stakeholder interviews revealed a **wide range of conflicting priorities**, making it evident that it is not yet possible to develop foundational elements based solely on their input.

Recommended Approach

- Assign a **smaller steering group** to refine and finalize the mission, vision, and strategic goals.
- Use this report and its findings to help guide the discussion and decisions.

Strawman Proposal

- Based on gathered insights, we have created a **strawman draft** of the mission, vision, and strategic goals to serve as a starting point for the steering committee discussions.

A strawman proposal is a preliminary draft or idea presented to spark discussion and gather feedback for improvement.

Vision - Aspiration

"To be the leading platform for Hawai'i travelers and residents, providing seamless access to information, reservations, and services while promoting a thriving, sustainable, and culturally enriched destination."

Mission - Purpose

"To create an innovative and inclusive destination app that enhances visitor experiences, supports effective destination management, and fosters sustainable tourism while celebrating local culture and community."

★ Note: This reflects the Sassato team's view based on our interviews and research and expertise, but may not align with the final HTA/Stakeholder view.

Further work is needed before initiating the RFP process, including establishing and appointing a project leader, establishing a small steering committee, finalizing core objectives, defining features and functionality, and determining the approach with current reservations site stakeholders.

Key Areas of Focus

Establish Governance Structure

- Form a Small Steering Committee: Include representatives from key stakeholder groups (e.g., tourism board, local government, IT, user representatives).
- Appoint a Clear Project Manager/Facilitator: Designate a point person to drive alignment, manage communication, and oversee timelines.

Finalize Core Objectives

- Define success metrics and desired outcomes (e.g., usability, scalability).
- Align objectives with stakeholder priorities and ensure they are specific, measurable, and achievable.

Define Features and Functionality

- Prioritize essential features and functionality (e.g., reservations, payment systems).
- Incorporate stakeholder feedback and validate feasibility with technical advisors.

Determine Approach with Current Reservations Site Stakeholders

- Assess integration opportunities and limitations with existing systems.
- Identify potential synergies and clarify roles and responsibilities.

Ownership and governance will be critical to the success of this project, supported by clearly defined roles, responsibilities, and accountability.

Ownership Structure

Primary Owner(s)

- Interviews indicated strong preferences for this to be managed by HTA or one of its contractors, but to use a professional third party to build and maintain the technical aspects of the application.

Stakeholder Representation

- A small steering committee with a clear leader should be determined to drive the project and make decisions.

Financial Responsibility

- Stakeholders were mixed on the idea of monetizing the app and as seen in the ensuing pages, it is recommended that monetization come in a future phase.

- Since this project will be publicly funded (at least initially) there was significant concern about the politics changing and funding potentially being reduced or eliminated.

Governance Model

Governance Body

- Recommended structure (e.g., Steering Committee, Advisory Board, or Operational Committee).

- Members include representatives from state and local governments, tourism agencies, and private sector partners.

Decision-Making Process

- Outline clear pathways for decisions (e.g., majority voting, consensus-based).

- Levels of authority (e.g., strategic vs. operational).

Roles and Responsibilities

Executive Oversight

- Define who ensures alignment with strategic goals (e.g., HTA board or legislature).

Operational Management

- Assign roles for day-to-day tasks (e.g., app development firm, IT vendor, local marketing teams).

Data Governance

- Specify responsibility for maintaining data privacy, analytics, and content updates.

Accountability Mechanisms

Performance Metrics

- Include KPIs for app performance, user engagement, and stakeholder satisfaction.

- Impact on destination management metrics. (e.g., reduction in traffic, improved environmental measures, etc)

Regular Reviews

- Proposed schedule for governance body meetings (e.g., quarterly, semi-annual).

Conflict Resolution

- Create a process for addressing disagreements among stakeholders.

As part of our process, we always ask, 'How would we approach this if it were our project?' While the following steps provide a high-level outline, they should be considered alongside the detailed guidance and insights provided in this report.

Assemble a Core Decision Team	**Objective:** Create a small, cross-functional team with authority to make rapid decisions. With a clear project manager. **Participants:** Key stakeholders (e.g., CEO/leadership, product owner, tech lead, marketing, and finance).
Define the Core Problem and Goals	**Objective:** Align on the core problem the app is solving, its primary users, and the success metrics. - Hold a focused workshop to refine the problem statement (use the findings in this document as the basis). - Prioritize a limited amount of objectives (e.g., reducing congestion, reservations). - Set high-level KPIs (e.g., number of active users, app adoption rate).
Engage Current Solution Providers	**Objective:** Collaborate with existing developers of similar technology to gauge interest, ensure alignment, and foster collaboration. - Meet with key players (e.g., DLNR, Airport, Ag Form teams) and schedule meetings. - Discuss potential integration opportunities and their appetite to collaborate. - Address concerns and establish shared goals to create a cohesive approach. - Outline next steps for incorporating their systems into the project.
Define MMP Scope	**Objective:** Quickly assess feasibility and define the essential features for the MMP. - Review technical feasibility using existing platforms and tools. - Identify non-negotiable functionalities (e.g., reservations, alerts, etc) - Engage key stakeholders for quick input to avoid misalignment. - Create a BRD and an RFP
Leverage Existing Solutions and Potentially Existing Vendor to Build the MMP	**Objective:** Use off-the-shelf platforms and existing APIs to build the MMP quickly. - Partner with a tech vendor experienced in app development. - Focus on core features only—avoid scope creep. - Ensure the app has a feedback mechanism to collect user insights post-launch.
Launch the MMP and Measure Success (Ongoing Post-Launch)	**Objective:** Release the MMP to the market and track key performance metrics. - Launch in a limited market (e.g., specific island or user groups). - Track adoption rates, user feedback, and app performance. - Use data to plan the next iteration.

A phased approach should be implemented, with clearly defined deliverables, timelines, and assigned owners for each phase.

Phase 1: Alignment and Scope Definition

- Form Steering Committee.
- Choose Project Leader/Team.
- Workshop with Steering Committee and Project team to finalize approach
- Draft and finalize Business Requirements Document (BRD).
- Submit RFI to potential vendors.

Phase 2: Vendor Selection and Contracting

- Develop and issue RFP based on BRD and RFI.
- Evaluate vendor proposals (technical, operational, and cost criteria).
- Award contract and finalize project plan with selected vendor.

Phase 3: App Development and Testing

- Develop Minimum Marketable Product (MMP) with core features:
  – Reservations
  – Real-time updates
  – Navigation/Location Based Services
- Conduct iterative testing with user and stakeholder feedback.

Phase 4: Launch and Scale

- Launch MMP and monitor performance.
- Collect user feedback to refine features.
- Plan and implement phased feature expansions (e.g., trip planning, gamification, AI).

Next Steps

Finalize Core Objectives and Governance

Develop and Issue RFI/RFP

Leverage Existing Platforms

Build a Minimally Marketable Product (MMP)

Develop a Robust Marketing Plan

Launch and Scale Strategically

Closing Statement

Thank you for the opportunity to contribute to this important initiative. We look forward to seeing this project bring lasting benefits to Hawai'i residents, visitors, and the environment.

Team Sassato

Mahalo Nui Loa

Appendix

SASSATO   HAWAI'I TOURISM AUTHORITY

CONFIDENTIAL

Appendix 1

Stakeholder Analysis
Pages 127-171

In the post-interview process, data was analyzed utilizing multiple models along with thematic and visual analysis.

Post-Interview Process and Data Analysis

- All interviews were transcribed and run through multiple data models for qualitative analysis.
- Transcribed results were aggregated via a thematic analysis, overall and by category.
- Key features and functionalities were visually mapped for analysis to identify emerging trends overall and by stakeholder category.
- Sassato held weekly discussions and update meetings to review and discuss findings.

About the Data

- The following summary and insights are based on the interview transcripts, thematic, and visual data analysis and do not purport to represent statistical or scientific results in any form.
- Please note that stakeholder views may be in multiple different responses to each question due to the qualitative nature of the interview process and data.
- Sassato's presentation of the data and analysis is solely for the purpose of reporting the results of stakeholder interviews conducted to develop a matrix of desired features and functionalities and other areas as defined in the agreed upon Scope of Work.
- The interview analysis and derived insights helped to guide our research, analysis and evaluation.

Questions about strategic alignment and vision revealed a wide range of perspectives on the core objective of the app.

Strategic Alignment and Vision	Based on my introduction and any knowledge you have about this initiative, what do you think should be the core objective of this app?

The strategic alignment and vision questions set the stage for the interview by providing the stakeholder's initial overall view of the core objective of the app. These questions also helped define the stakeholders' definition and understanding of the "Smart Tourism" concept, target market for the app and how residents could be engaged by the app.

It quickly became apparent that perspectives varied widely, spanning from the core objectives of the app to its features, functionality, and target audience. The chart highlights the diverse perspectives of stakeholders, organized into main categories.

Stakeholder Perspectives on the Core Objective of the App

- Crowd Management & Flow Regulation (28%)
- Destination Management (19%)
- Cultural Education (16%)
- Enhance Visitor Experience (15%)
- Convenience and Consolidation (12%)
- Local Benefit through Visitor Compliance (11%)
- Safety & Alerts (11%)
- Accurate Information (9%)
- Protect Natural Resources (9%)
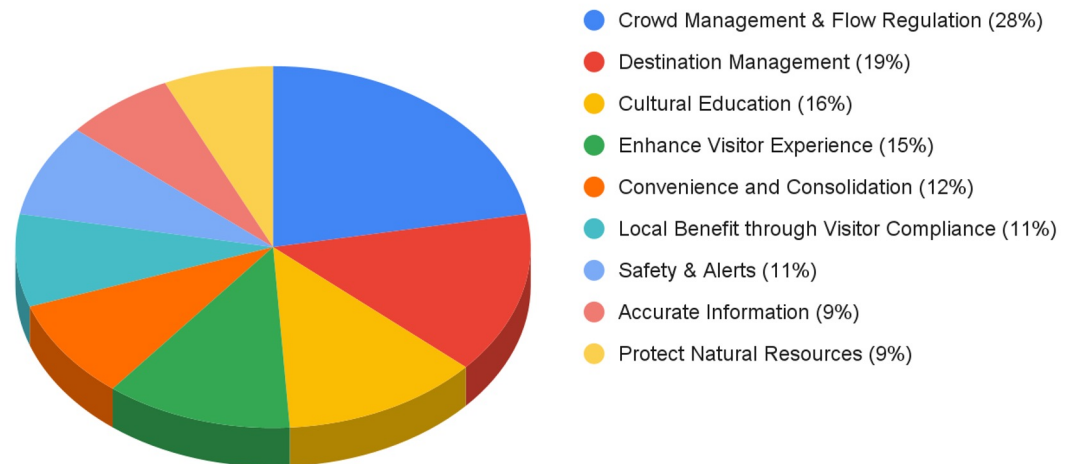
Most stakeholders shared a common perspective on destination management.

The more common view of destination management by stakeholders represented about 83% of the initial overall view of the core objective of the app. This included crowd management & flow regulation, cultural education, local benefit through visitor compliance, and protecting natural resources. Enhancing the visitor experience along with convenience and consolidation were included in about 27% of the responses with real-time information such as safety & alerts and accurate information also considered core at about 20%.

Stakeholder Perspectives on the Core Objective of the App

■ Tourism ■ Supplier ■ Government ■ Community ■ Apps & Technology
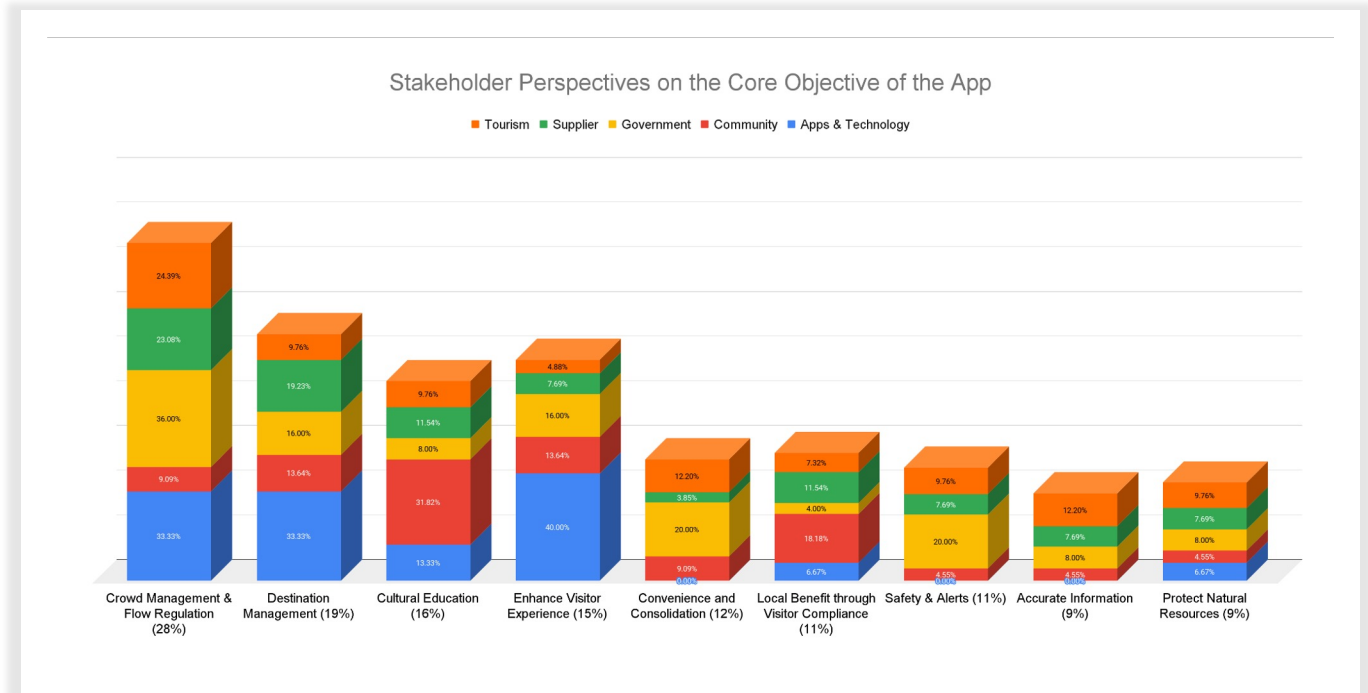
Priority core objectives varied based on the stakeholder's industry or area of knowledge.

The previous chart shows the variation of responses by area. Broken down by area, the chart provides insight into priority core objectives:

Apps & Technology	Enhancing the visitor experience was the top priority for this area (40%), with both crowd management & flow regulation and destination management each at 33.33%.
Community	Emphasized cultural education with local benefit through visitor compliance as the second most discussed objective. One stakeholder summed up the objective as having a main purpose to reframe tourism in Hawaiʻi by fostering respect for local culture and places, stressing that the app should emphasize cultural educational components, allowing visitors to understand Hawaiʻi's cultural heritage rather than simply consuming it as a vacation destination.
Government	Prioritized was crowd management and flow regulation followed by convenience and consolidation and real–time safety & alerts. A local politician stated the core objective of the app was to manage visitor flow and reduce overcrowding at key tourist sites, ensuring a balanced distribution of people and minimizing environmental impact while enhancing the overall tourist experience.
Supplier	Crowd management & flow regulation and destination management were the top priorities.
Tourism	At 22% of the responses, crowd management & flow regulation was the most stated core objective.

Congestion and insufficient visitor education emerged as the top-ranked issues the app could solve.

Strategic Alignment and Vision	What problems do you think this app could solve?

The response to the first question directly corresponds with the next question regarding what problems the app could solve.

Based on the overall responses, visitor issues such as congestion and lack of visitor education and compliance ranked high on the list of identified problems. These issues are further exacerbated by the lack of centralized and accurate information, emergency situations and traffic and parking issues.

By area, the same three issues were at the top of the list:
1) Visitor congestion;
2) Lack of visitor education and compliance; and
3) Emergency situations.

Centralized, accurate information and real-time alerts were mentioned as issues for visitors and residents. Most often mentioned were:
- Safety, ocean and weather alerts/emergencies
- Traffic congestion and road closures
- Destination overcrowding
- Parking availability and alternative transportation options

	All Stakeholders	All Stakeholders
Visitor Congestion (28%)	48	28.24%
Lack of Visitor Education and Compliance (18%)	31	18.24%
Emergency Situations (14%)	24	14.12%
Lack of Centralized and Accurate Information (15%)	25	14.71%
Fragmented Reservation Systems (10%)	17	10.00%
Traffic and Parking Issues (7%)	12	7.06%
Visitor Environmental Impact (5%)	8	4.71%

The concept of Smart Tourism and the development of a corresponding app are not yet firmly established.

Strategic Alignment and Vision	How can the app support "Smart Tourism" practices?

All Stakeholders: Features and Functionalities to Support "Smart Tourism" Practices

- Educational Engagement & Cultural Respect (21%)
- Real-Time Monitoring & Updates (21%)
- Crowd Management & Flow Regulation (21%)
- Safety and Sustainability Support (17%)
- Geo-Location & Personalized Experience (7%)
- Integration of Services & Incentives…
- Online Booking/Reservations (3%)
- Supporting Local Businesses (3%)
- Centralized Source of Information (…
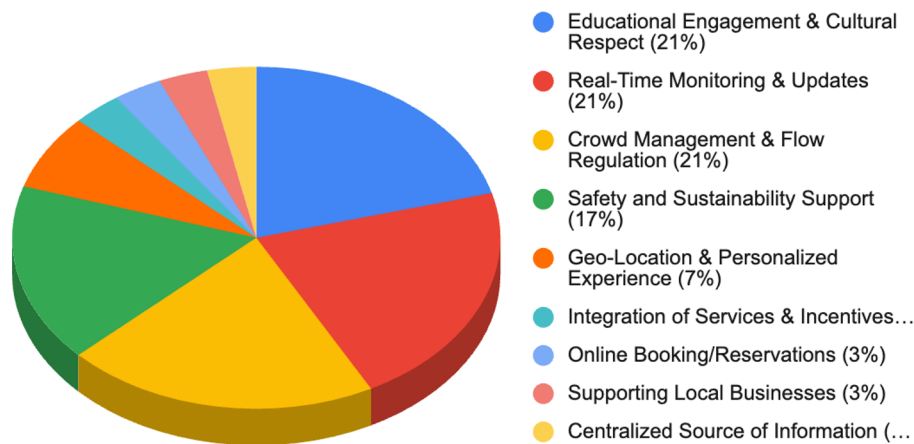
This question further supports the Pre-Call Survey findings that the "Smart Tourism" concept and related creation of an app are not yet strongly established. There are diverse opinions on the supporting features and functionalities because of the varying perspectives on the core objective(s) of the app.

From the community, tourism, and supplier perspective, educational engagement and cultural respect was high on the list. Features and functionalities identified by government stakeholders were more spread over educational & cultural engagement to crowd management, safety and real-time information.

In contrast, apps and technology emphasized practical functionalities such as real-time monitoring, updates, and crowd management and flow regulation. This approach reflected a more data and technology-focused perspective.

The app should benefit both visitors and residents.

Strategic Alignment and Vision	Do you think this app should be primarily for visitors or also for residents?

All Stakeholders: Intended Primary Audience

- ● Dual Audience Approach (61%)
- ● Visitor-Centric Approach (27%)
- ● Residents as a Secondary Audience (12%)
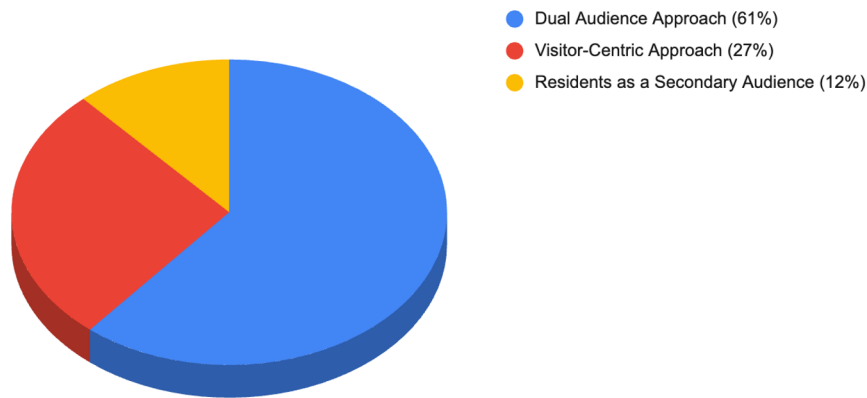
The majority of stakeholders agreed that the app should take a dual audience approach. Although its main focus would be geared toward visitors, the inclusion of residents would be beneficial overall. Residents travelling to non-home islands or visiting popular attractions were also acknowledged as a material part of the visitor segment.

An Apps & Technology sector stakeholder summarized the app as "one that should serve both visitors and residents. This dual approach would benefit both groups by providing shared experiences that highlight Hawai'i's values and support local businesses, while also enabling residents to access relevant local event information."

This view was affirmed by Community stakeholders who identified the benefits for residents to include: Use of same resources (e.g. parks, public transport), promotion of local businesses, and sharing of community information.

> " My opinion on this is that everything should be beneficial to the local first, and then the tourists will follow after that. And to me, I think that that's the most healthiest way of building a business, too.
> *– Supplier Stakeholder*

Residents should be encouraged to use the app, gaining additional benefits that support local businesses and foster a more positive tourism experience for the community.

Strategic Alignment and Vision	If also residents, what features and functionality might appeal to them that would get them to use the app?

All Stakeholders: Features and Functionalities to Engage Residents
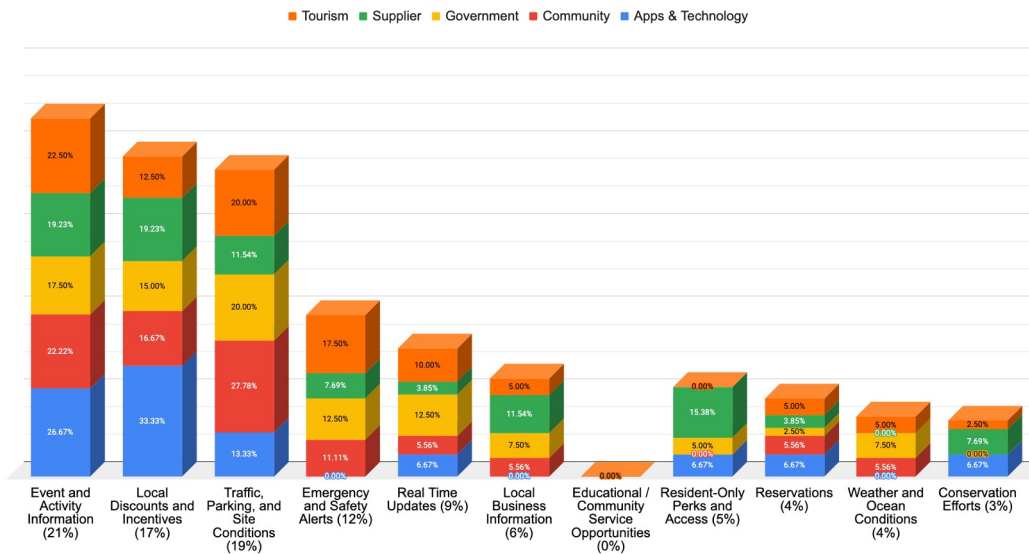
Highlighted features and functionality that might appeal to residents were event and activity information, and traffic, parking and site conditions, accompanied by local discounts and incentives to encourage use and engagement. Many stakeholders stated it was important to ensure that residents maintain priority access, options, and free/discounted fees. An additional benefit from resident use would be to promote local businesses and "make tourism more appealing to locals."

Stakeholders varied in their views on essential app features, but real-time information, reservation and crowd management, and cultural and educational integration were ranked highest.

Desired Features and Functionalities	What core features or functions do you believe are essential for the app's success?	
	All Stakeholders	**All Stakeholders**
Real-Time Information and Alerts (24%)	49	24.38%
Reservation and Crowd Management Systems (20%)	41	20.40%
Cultural and Educational Integration (15%)	31	15.42%
Navigation and Traffic Updates (7%)	15	7.46%
Local Business Information (4%)	9	4.48%
Ease of Use and User Experience Design (3%)	7	3.48%
Event Information (3%)	7	3.48%
Public Transportation Information (3%)	6	2.99%
Dining / Shopping Options (2%)	5	2.49%
Weather and Surf Conditions (2%)	5	2.49%
User Engagement and Gamification (2%)	4	1.99%
Commercial Partnerships and Monetization (2%)	4	1.99%
Digitize Agriculture Form (2%)	4	1.99%
Incentive Structure / Discounts (2%)	4	1.99%
Trip Planning (3%)	6	2.99%
Multi-language support (1%)	3	1.49%

Views on essential features or functions for the app's success yielded more detailed answers than the previous question that addressed encouragement of user adoption.

Amongst community, government, tourism and to a lesser extent supplier stakeholders, real-time information and alerts and reservation and crowd management systems were deemed essential to the app's success.

Apps & technology stakeholders emphasized the importance of data and metrics in the development of key features and functionality as well as the measurement for usage and feedback.

User engagement, adoption metrics, and visitor satisfaction feedback were overwhelmingly highlighted as key measures of the app's success.

Desired Features and Functionalities	How do you measure success?

All Stakeholders: Key Metrics for Measuring App Success

- User Engagement and Adoption Metrics (41%)
- Visitor Satisfaction and Feedback (24%)
- Visitor Flow and Congestion Management (13%)
- Tourist Behavioral Changes (13%)
- Revenue Generation and Economic Impact (6%)
- Cultural and Educational Engagement (3%)
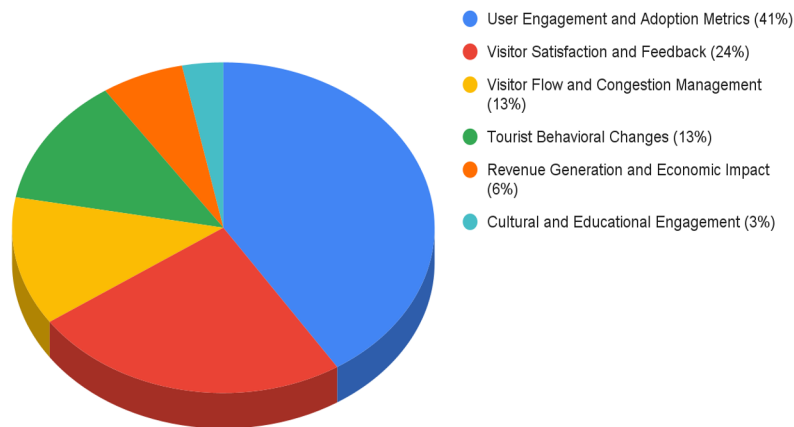
User engagement and adoption metrics along with visitor satisfaction and feedback overwhelmingly were more frequently mentioned as the keys to measuring success of the app.

Also mentioned was success being ultimately measured by the changes in tourist behavior and profile, such as decreased overcrowding, sustainable tourism choices, and improved ecological indicators and community adoption.

Feedback from visitors, residents and businesses would be necessary to assess satisfaction and areas for improvement. Some suggestions were use of D-MAPs (destination action management plans), KPI dashboards, and engagement and usage metrics.

The majority of stakeholders emphasized cultural and environmental education as the unique feature essential to addressing Hawai'i's destination management needs.

All Stakeholders: Features Prioritized for Hawaii's Unique Needs

■ Tourism ■ Supplier ■ Government ■ Community ■ Apps & Technology
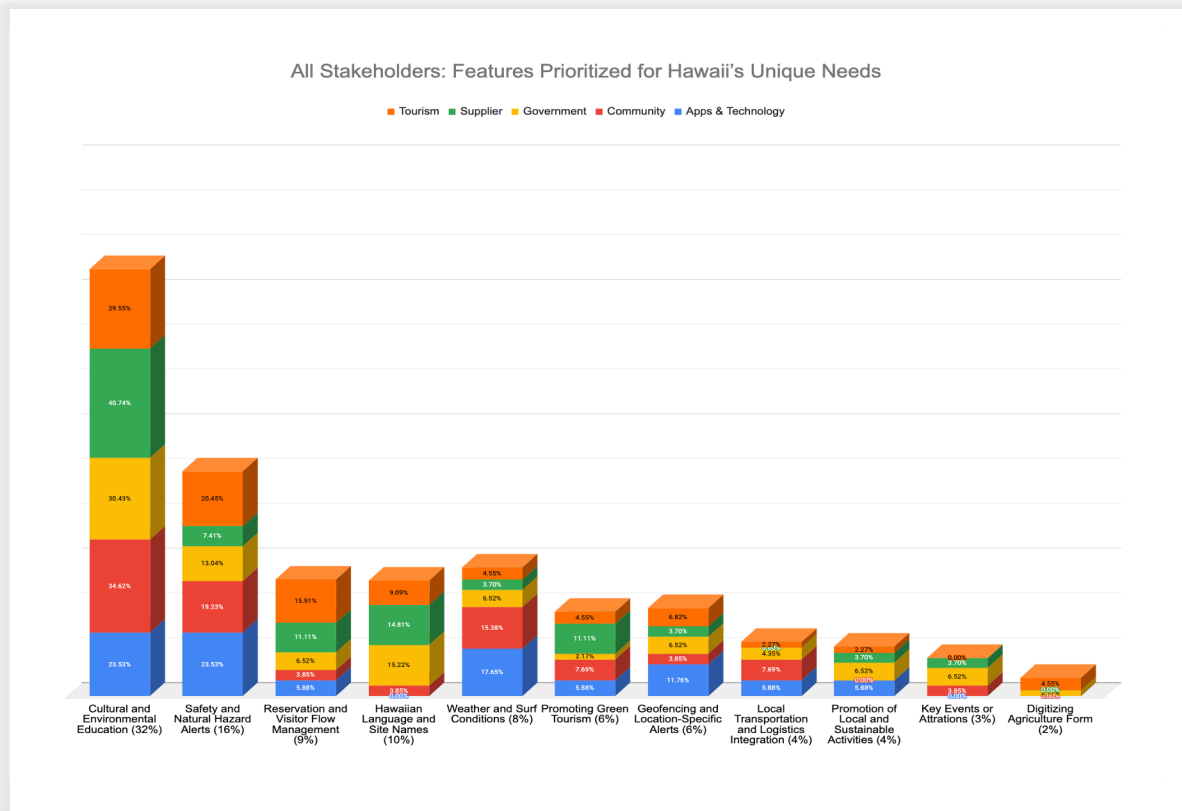
Desired Features & Functionalities	Are there any specific features that you think are unique to Hawai'i's needs that should be prioritized?

The majority of stakeholders prioritized cultural and environmental education as the specific feature unique to Hawai'i's needs. This coincides with the overall destination management discussion and widespread concerns for better management and preservation of Hawai'i's unique environment, culture, and traditions.

Stakeholders overwhelmingly preferred a hybrid public-private partnership model for the app's ownership and oversight, with many emphasizing the importance of state involvement in its governance.

Governance and Ownership	In your opinion, who should have primary ownership and oversight of the app (e.g., government agency, private sector, public-private partnership)?

All Stakeholders: Preferred Ownership and Oversight of the App

- Public-Private Partnership (35%)
- Hawaii Tourism Authority (HTA) Oversight (27%)
- Concerns About Sole Government Control (11%)
- Collaborative Oversight (HTA, HVCB, Kilohana) (10%)
- Private Sector (8%)
- Government Agency with Contracted Management (5%)
- CHNA (3%)
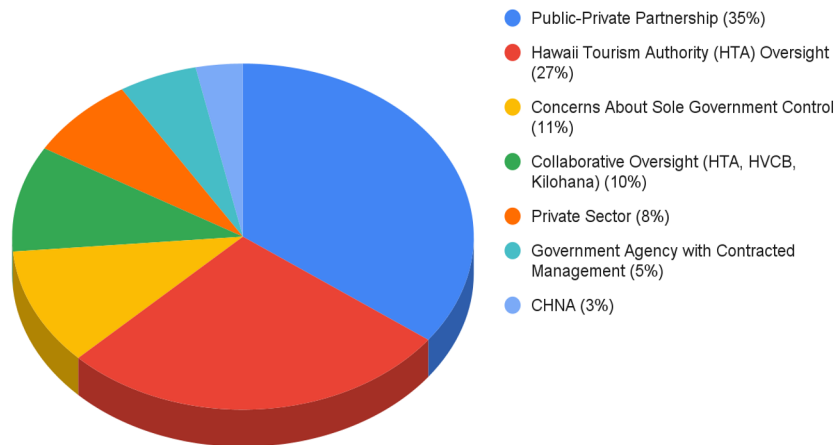
Overwhelmingly stakeholders prefer a hybrid model of public/private partnership for the ownership and oversight of the app. The need to have oversight by the state was commonly brought up, as well as some more commonly cited comments and concerns:

- Question of whether HTA has the capability to manage the app effectively.
- Government oversight is necessary, but politicization needs to be kept at a minimum.
- Negative perception by locals could be reduced by separating the app from HTA control, although oversight would still be necessary to align with state goals.
- Find a way to make the app sustainable through fees or some kind of monetization, reducing its reliance on legislative funding.

> " If this is run by a government agency, the politicians will find a way to mess it up.
>
> *– Supplier Stakeholder*

The hybrid model with a public focus was the most favored, with monetization seen as a means to ensure the app's sustainability and support roles created by implementing Smart Tourism practices.

Business Model and Monetization	What are your thoughts on potential business models for the app? Should it be a public service, a monetized platform, or a hybrid?

All Stakeholders: Exploring Business Models

● Hybrid Model (55%)
● Public Service Focus (28%)
● Monetized to offset costs (8%)
● Light Monetization and Ad Integration (5%)
● Partnerships with Local Businesses (5%)
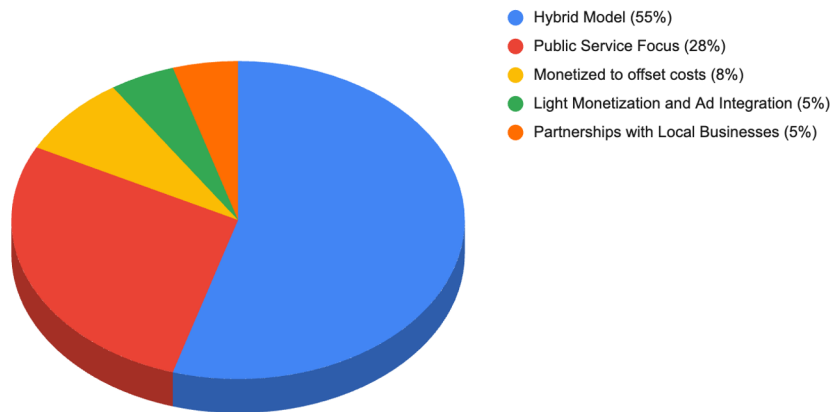
The hybrid model with a public focus emerged as the most favored response, with monetization seen as a means to ensure the app's sustainability. This approach could also support staffing needs created by implementing Smart Tourism practices at sites and attractions, such as ticket collectors or cultural guides.

Monetization strategies varied, with the most commonly mentioned being partnerships with local businesses, advertisements and sponsored content, commission-based models, and premium feature purchases.

Business Model and Monetization	If monetization is pursued, what strategies (e.g., in-app purchases, advertisements, partnerships) do you think would be most effective?

	All Stakeholders	All Stakeholders
Partnerships with Local Businesses (25%)	31	24.80%
Advertisements and Sponsored Content (17%)	21	16.80%
Commission-Based Transactions (14%)	17	13.60%
In-App Purchases and Premium Features (14%)	17	13.60%
Premium Features (14%)	17	13.60%
Integration with Third-Party Services (9%)	11	8.80%
Donations and Voluntary Fees (5%)	6	4.80%

Strategies provided frequently focused on partnering with local businesses, utilizing advertisements and sponsored content, commission based transactions and additional premium features for purchase.

The primary strategies suggested included leveraging available technology, implementing revenue management or demand/yield pricing, and promoting user engagement through popular tools like gamification, incentives, and discounts.

Revenue collection that is currently collected from 3rd party vendors could be re-routed to the app over time to allow fees to be collected by the state and therefore utilized to sustain the app and resources needed for Smart Tourism location staffing.

> 66 The number one risk is that it becomes a marketing tool and not a destination management tool.
>
> *– Community Stakeholder*

The most mentioned top apps or good models for a Hawaiʻi app to look at were the Disney app, Japan Travel and the Shaka Guide.

User Experience	Are there any destination or other apps that you have used or looked at that are a good model for the Hawaiʻi App?

All Stakeholders: Top Apps mentioned as Inspiration
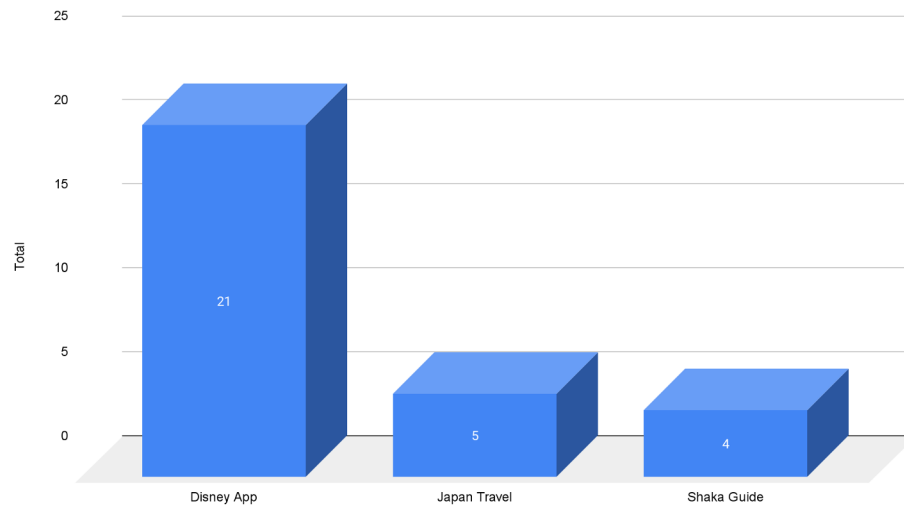
The top three destination or other apps identified by stakeholders were:

- Disney App
- Japan Travel
- Shaka Guide

No other apps were identified more than once or twice except for the National Park Service app which was mentioned three times. This may be due to the lack of common definition and the broad perspectives on the objective, features and functionality. Stakeholders may have an idea of what the app might look like, but have not seen a state or country consolidated app that would encompass all aspects that have been discussed.

Please refer to the next slide for the full list of apps identified by stakeholders.

Along with the Disney app, Japan Travel and the Shaka Guide stakeholders mentioned the following 34 apps as excellent apps that would make for a good model for Hawai'i.

App	Times Mentioned	App	Times Mentioned
Disney App	21	Whova	1
Japan Travel	5	Discover Los Angeles	1
Shaka Guide	4	Merit	1
National Park Service	3	Galapagos	1
Aulani	2	Ski Resorts	1
New Zealand App	2	Cruise Ship Apps	1
Google Maps	2	DOH Drowning Prevention Website	1
Monterey Bay Aquarium	1	Dublin Airport	1
San Francisco Museum	1	Auckland Airport	1
Go Akamai	1	Berlin App	1
Hawaiian Airlines	1	TripAdvisor	1
Avenza	1	AirBNB	1
Ctrip	1	Uber	1
OuterSpatial	1	The Villages (Florida)	1
MGM	1	Klook	1
Nutmeg	1	Rome 2 Rio	1
Safe Travels Hawai'i	1	Transit App	1

The majority of stakeholders emphasized the importance of integrating or linking the app with existing state and county platforms, public transportation systems, and wayfinding services.

Integration with Existing Systems	Are there existing state, local government platforms or services that the app should integrate with or link to? Do you know what system(s) are used and whether they have an API or integration capabilities?

	All Stakeholders	All Stakeholders
Reservation and Park Management Systems (43%)	34	42.50%
Traffic, Weather, and Emergency Alerts (23%)	18	22.50%
Public Transportation and Wayfinding Services (19%)	15	18.75%
Event and Tourism Databases (11%)	9	11.25%

The majority of the stakeholders identified the Reservation and Park Management Systems, Traffic, Weather, and Emergency Alerts, along with Public Transportation and Wayfinding Services as the existing state, local government platforms or services that the app should integrate with or link to. Many referred to the existing systems that enable reservations or scheduling such as Hanauma Bay, Diamond Head, national parks and certain state parks.

The response analysis links reservation systems with the need for public transportation and wayfinding services. The wayfinding definition, as defined as a subcategory of reservation systems, encompassed not only the ability to make and pay for reservations, but further explored adding trip planning and custom itineraries. This included "know before you go" information, tools, maps and other guidance to better plan trips primarily to achieve with destination management goals, yet also to enhance the visitor experience while easing the burden on local residents, communities and natural resources.

Stakeholders prioritized integration of existing apps for comprehensive trip planning and itinerary management.

Integration with Existing Systems	Besides the government platforms mentioned above are there other existing platforms or services that the app should integrate with or link to?

All Stakeholders: Additional Platforms and Services for Potential App Integration

- Private Sector and Commercial Platforms (32%)
- Local Business and Event Platforms (21%)
- Ticketing and Reservation Systems (13%)
- Navigation and Traffic Systems (12%)
- Weather, Surf, and Environmental Apps (7%)
- Emergency and Safety Services (4%)
- Conservation Groups (4%)
- Hawaiian Associations (3%)
- Social Media and Influencer Feeds (3%)
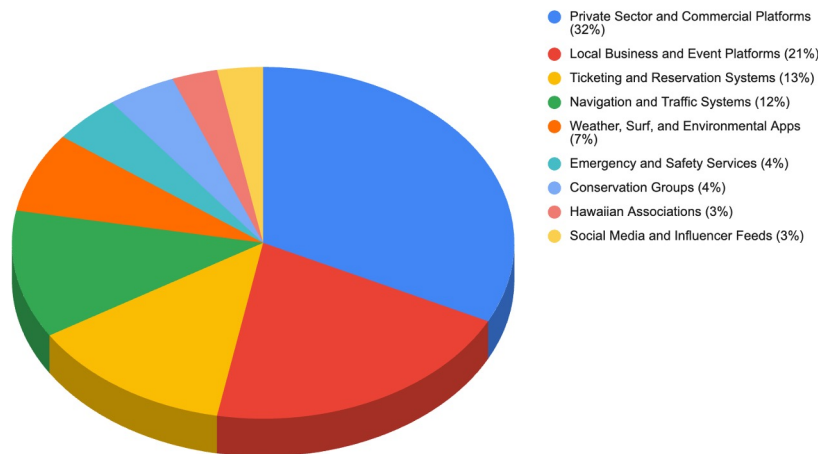
Trip planning spanned personalized trip planning and itinerary features to interactive map-based trip planning with ability to add attractions, events and dining options, to integration with transportation schedules and options, wait times, traffic and real time mapping. The examples given included:

1) Current trip planning or reservation apps such as Expedia, TripAdvisor, and Kayak;

2) State and county systems such as the trail system apps, Biki, Transit App; and

3) Private sites such as Pearl Harbor or the Polynesian Cultural Center.

There was a strong emphasis on integrating existing apps rather than developing a new reservation system. The focus was on leveraging the best available technologies and apps to support the proposed consolidated platform.

Biggest risks included user adoption, funding, privacy, and technical issues, with solutions focused on clear marketing, seamless integration, and leveraging proven technology.

Risks, Challenges, and Opportunities | What do you see as the biggest risks or challenges in developing and launching this app?

All Stakeholders: Perceived Risks and Challenges in App Development and Launch

- User Adoption and Engagement (22%)
- Securing buy-in from various organizations (10%)
- Funding and Financial Sustainability (10%)
- Scope Creep and Over-Complexity (8%)
- Technical Integration and Expertise (8%)
- Updating Information (8%)
- Political and Bureaucratic Challenges (7%)
- Privacy and Security Concerns (7%)
- Bias, Controversy, and Balancing Content (5%)
- Community Resistance (5%)
- Marketing and Pre-Arrival Engagement (3%)
- Redundancy (3%)
- Authentic Hawaiian Cultural Input (1%)
- Development/Lead Time (1%)

User adoption and engagement was cited as the biggest risk or challenge in the development and launch of the app. This was followed by securing buy-in from various organizations and funding and financial sustainability concerns.

Many stakeholders from the areas of apps & technology, government and tourism found these areas to with the most risks and challenges. By contrast, community stakeholders additionally cited privacy and security concerns, community resistance and technical related issues as posing as much risk or challenge. Supplier stakeholders also deemed scope creep and bias, controversy and balancing content as possible risks or challenges.

To mitigate these risks or challenges, many solutions were offered, from utilization of marketing strategies with very clear, direct messaging to providing seamless integration with existing and other platforms enabling an easy to use and navigate, intuitive user experience. By utilizing effective existing technology, concerns regarding security, offline functionality, accurate data, scalability and updating/maintenance could be reduced addressed.

Stakeholders suggested using pre-arrival forms, existing networks, and "captive" travel audiences to drive app awareness and downloads.

Risks, Challenges, and Opportunities	Getting people to use and download may be a challenge, any thoughts on how we can make visitors aware of and get them to download the app?

	All Stakeholders	All Stakeholders
Leveraging Captive Audiences in Transit (27%)	37	27.01%
Leveraging Existing Tourism Networks (17%)	23	16.79%
Pre-Arrival Integration and Mandatory Use (16%)	22	16.06%
Incentives and Rewards (12%)	17	12.41%
Targeted Marketing Campaigns (10%)	14	10.22%
Social Media and Influencer Engagement (7%)	10	7.30%
Grassroots Marketing (4%)	6	4.38%
Geo-Fencing and Location-Based Notifications (3%)	4	2.92%

To increase visitor awareness of the app and to encourage downloading the app, the prevalent view was to leverage the captive audience of visitors traveling from outside of Hawai'i and utilization of existing networks as well as the mandatory pre-arrival form.

Visitors traveling to Hawai'i via airplane or ship are more easily engaged due to the "captive" nature of the transportation mode. This provides an opportunity to utilize the mandatory pre-arrival agricultural forms and other possible Smart Tourism requirements to highly encourage the use of the app. References were made to the Japan Web site that facilitates immigration, customs and other pre-arrival services through an online website and to Hawai'i's required use of the Safe Travels app during the COVID period.

Existing technology storytelling sites like the Shaka Guide and Hawaiian Airlines' guides on how to be a responsible tourist in Hawai'i were cited as examples of how targeted marketing could work. By partnering with airlines, cruise lines, hotels, attractions and other travel related companies, targeted content could be promoted to increase user adoption from pre- to post-travel, as well as in future return travel promotions. For some attractions, the app could be required to make a reservation and review guidelines prior to arriving. Incentives and discounts with local businesses, as well as gamification were also suggested as ways to drive user adoption.

> " The core objective of this app really needs to be defined... If there's something that [visitors] can use immediately once they get on the ground and it would prompt them to use it because it is useful... then I think... it's just getting that one hook so that people start using it more.
>
> *– Tourism Stakeholder*

Stakeholders preferred a simple, culturally relevant app name, with some caution about Hawaiian names being hard for visitors to pronounce or remember.

Risks, Challenges, and Opportunities	Do you have any thoughts on what to name the app?

Most stakeholders did not have ideas for possible app names, but many suggested simplicity or names that were appealing with a cultural relevance. A stakeholder suggested choosing a name that feels relevant to Hawai'i's culture and can represent the app's purpose for both tourists and residents, while others did voice concerns that a lesser known or Hawaiian name or phrase might make it hard for visitors to pronounce or remember. Of the opinions provided, a simple, clear name that conveys its purpose was preferred.

Specific names mentioned included:

- **Hawai'i Smart Tourism App**
- **Hawai'i Tourism Authority**
- **HTA Tourism App**
- **Hawai'i App**
- **Aloha**
- **Holo Holo App**
- **"Huaka'i" (which means "outing" in Hawaiian)**
- **"Kipa," (which means "hosting individuals" in Hawaiian)**

Marketing ideas mirrored user adoption strategies, emphasizing airline and hotel partnerships, HTA channels, QR codes, social media, and influencers.

Risks, Challenges, and Opportunities	How it should be marketed?

All Stakeholders: Effective Marketing Strategies for the App

- Airline and Hotel Partnerships (29%)
- Social Media and Influencer Collaboration (13%)
- Local and Community-Centric Approach (11%)
- Global Tourism Networks (12%)
- Pre-Arrival Engagement (8%)
- Incentives for Engagement (8%)
- QR Codes at High-Traffic Locations (7%)
- Travel Agencies (5%)
- Emphasives App Features (5%)
- Grassroots Marketing (2%)
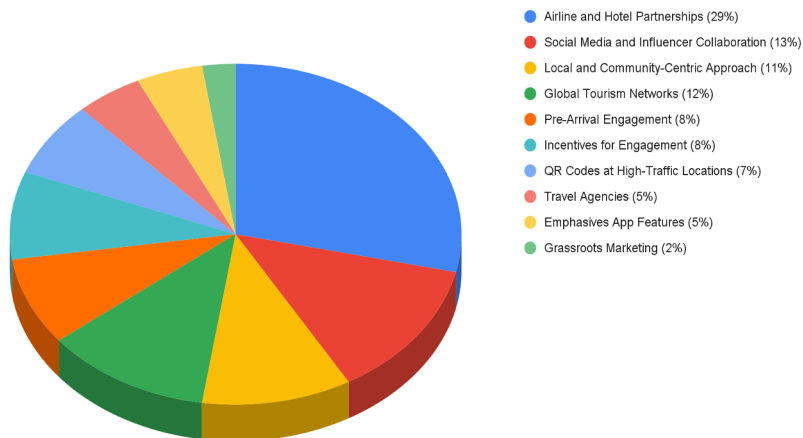
Marketing ideas were similar to the previous question on user adoption, citing airline and hotel partnerships and collaborations. Use of current HTA promotion and channels, QR codes, as well as social media and influencers were also suggested.

A supplier stakeholder recommended a community based perspective first, with the app being marketed with a "community-centric approach." The thought was that by focusing on Hawaiian values and connecting with local stories, it will deliver an authentic cultural perspective.

Stakeholders overwhelmingly preferred seamless integration with existing platforms for consistency, advocating a hybrid approach to ensure a unified user experience while leveraging proven technologies rather than creating new ones.

Risks, Challenges, and Opportunities	Many of the features and functionality we've discussed already exist on other platforms. Should the goal of this app be to link to those sites, integrate with them so the transactions feel seamless within the app, create our own version, or a combination of these approaches?

All Stakeholders: Preferred Approach for Feature Integration and Development in the App

● Seamless Integration for Consistency (67%)
● Combination Approach (33%)
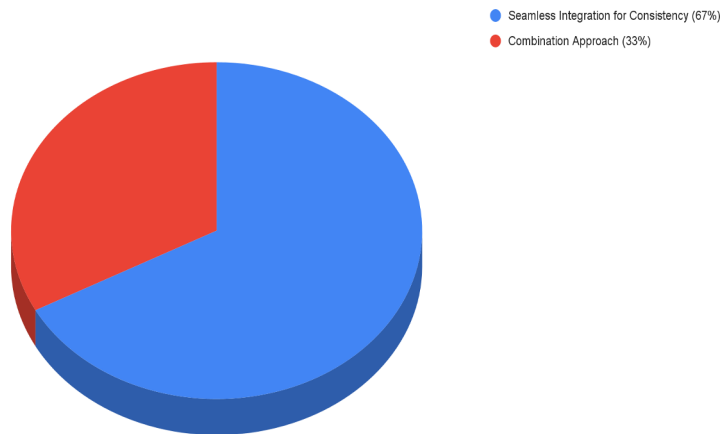
Although the analysis shows seamless integration of existing platforms for consistency overwhelmingly preferred by stakeholders, most also advocated the hybrid or combination approach to ensure a unified experience for users. Many advocated utilizing existing technology that is already providing these services well and cautioned against trying to recreate the wheel or build new platforms.

Also of mention:

- Avoiding duplication of efforts and services that has occurred with various agencies and departments separately developing and funding similar projects which could be consolidated.

- Centralized, seamless experience, not just linking out to other platforms.

- If linking to other platforms, link directly to relevant pages rather that general homepages to provide users with immediate access to information they seek.

Stakeholder contributions reflected their sectors, with tourism and government focusing on promotion and content, and tech stakeholders on support and integration.

Stakeholder Collaboration	How do you see your organization contributing to the development, launch, or promotion of the app?	

	All Stakeholders	All Stakeholders
Promotion and Marketing Support (29%)	28	29.17%
Content and Cultural Contributions (18%)	17	17.71%
Knowledge Sharing and Expertise (17%)	16	16.67%
Development and Technical Support (18%)	17	17.71%
Service Integration and Partnership (15%)	14	14.58%

Contribution fell along the lines of the stakeholder's organization or area. Tourism, supplier and government stakeholders most mentioned organizational contributions would be promotion and marketing support along with content and cultural contributions. In the apps & technology area, stakeholders offered more knowledge, technical support and development, and service integration and partnership.

Stakeholders in government were more restricted in contribution, based on their department, agency or branch of government. However, these stakeholders expressed their willingness to contribute with advice, content, promotion and support.

The overall response was that the stakeholder's organization would be more than willing to contribute once the objective of the app is determined and would be open to participating in planning and/or development.

Most stakeholders supported the app initiative, with cautious optimism indicating that clearer objectives could strengthen overall support.

Strategic Alignment and Vision	Do you think building this app is a good idea and will be beneficial for visitors, residents of the state and the management of the destination?

All Stakeholders: Support for App Development

- ● Support for the Intiative (40%)
- ● Strong Support for the Initiative (27%)
- ● Skepticism and Cautious Optimism (14%)
- ● Conditional Support Dependent on Execution (13%)
- ● Concerns About Adoption and Impact (6%)
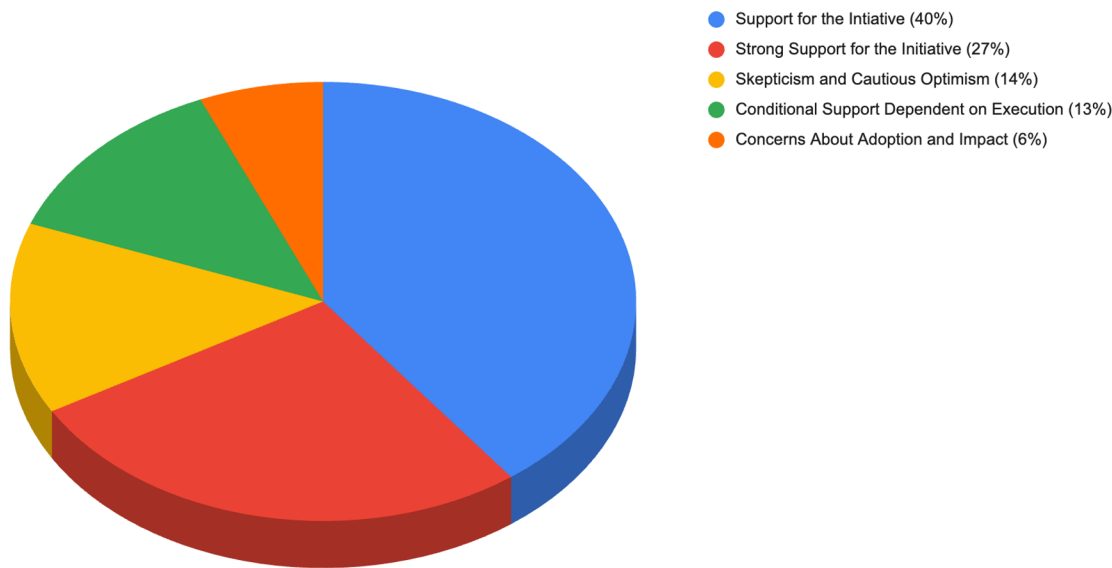
More than half of the stakeholders interviewed expressed support for the app initiative. There was cautious optimism and some conditional support dependent on execution conveyed by about 27% and 6% had concerns about adoption and impact. This supports the beginning premise that with the further definition and understanding of Smart Tourism and the objective of the app, more stakeholders will get behind it and support the effort.

Stakeholders were asked additional targeted questions tailored to specific areas of knowledge or expertise.

Additional Interview Questions, as applicable in specific areas of knowledge or expertise:

- Tourism
- Government
- Community
- Suppliers (Airlines, Hotels, F&B, etc.)
- Apps & Technology

Tourism stakeholders identified local nonprofits, government services, and travel companies as key partnerships to enhance tourism experiences and app promotion.

What partnerships or integrations with existing tourism services would be beneficial?

	Tourism	Tourism
Small Businesses (18%)	6	17.65%
Airlines and Hotels (9%)	3	8.82%
State Parks and Recreation Services (12%)	4	11.76%
Emergency Response (9%)	3	8.82%
Local Product Companies (9%)	3	8.82%
Transportation Networks (9%)	3	8.82%
Tour Operators (6%)	2	5.88%
Local Content Creators (6%)	2	5.88%
Restaurants (9%)	3	8.82%
Major Travel Companies and OTAS (6%)	2	5.88%
Cultural Institutions and Museums (6%)	2	5.88%
Volunteer and Community-Based Organizations (3%)	1	2.94%

Tourism Stakeholders: Potential Partnerships and Integrations

- Small Businesses (18%)
- Airlines and Hotels (9%)
- State Parks and Recreation Services (12%)
- Emergency Response (9%)
- Local Product Companies (9%)
- Transportation Networks (9%)
- Tour Operators (6%)
- Local Content Creators (6%)
- Restaurants (9%)
- Major Travel Companies and OTAS (6%)
- Cultural Institutions and Museums (6%)
- Volunteer and Community-Based Organizations (3%)

There were 17 tourism related stakeholders who were interviewed and asked three additional specific tourism related questions.

The first question regarding beneficial partnerships or integrations with existing tourism services yielded many results. These included organizations such as Kanu Hawai'i for volunteer opportunities and other local nonprofits to provide unique community-based tourism experiences. Also important would be providing comprehensive and practical information through integration with local government services for emergency response resources and access to transportation networks such as TheBus. Partnerships with major travel companies could also be beneficial for promoting the app during the booking process.

Cultural and historical education emerged as a key priority for tourism stakeholders, emphasizing responsible tourism while enriching both visitor and local experiences.

What kinds of content (e.g., events, tours, local attractions) should be prioritized on the app?

	Tourism	Tourism
Cultural and Historical Education (23%)	10	22.73%
Local Events and Community Happenings (23%)	10	22.73%
Safety and Environmental Guidelines (18%)	8	18.18%
Crowd Control and Reservation Systems (11%)	5	11.36%
Validated Sustainability Information (9%)	4	9.09%
Dining and Culinary Experiences (5%)	2	4.55%
Alternative Destinations and Travel Tips (5%)	2	4.55%
Community-Based and Volunteer Tourism (2%)	1	2.27%

Tourism Stakeholders: Prioritized Content Types for the App

- Cultural and Historical Education (23%)
- Local Events and Community Happenings (23%)
- Safety and Environmental Guidelines (18%)
- Crowd Control and Reservation Systems (11%)
- Validated Sustainability Information (9%)
- Dining and Culinary Experiences (5%)
- Alternative Destinations and Travel Tips (5%)
- Community-Based and Volunteer Tourism (2%)
- Local Business Highlights (5%)

Cultural and historical education was a common priority not only in this group but across the board. Most responses in this area highlighted, in many cases, to not only provide guidance for responsible tourism, but also to enhance the visitor and also local experience:
- Information on Native Hawaiian and local culture
- Guidance on cultural etiquette
- Environmental protection and safety
- Cultural and historical significance of Hawai'i's sites
- Respectful behavior

Also highlighted by all groups, not only tourism stakeholders, were: local event and community listings to facilitate community engagement and volunteer opportunities and promoting local businesses.

Stakeholders agreed that existing content is scattered across various platforms with inconsistent accuracy and updates, reinforcing the need for a consolidated app.

Does this content already exist? If so where? And how do you think the content can be kept current?

	Tourism	Tourism
Centralized Content Management (20%)	5	20.00%
GoHawaiʻi.com (20%)	5	20.00%
Dedicated Update Team (16%)	4	16.00%
HTA Resources (12%)	3	12.00%
Cultural Institutions and Local Stakeholders (8%)	2	8.00%
API Integrations for Real-Time Updates (8%)	2	8.00%
Partner Platforms (4%)	1	4.00%
Social Media and Advertising Channels (4%)	1	4.00%
Collaboration with Local Organizations (4%)	1	4.00%
Community Content Creators (4%)	1	4.00%

Tourism Stakeholders: Existing Content Sources and Strategies

- Centralized Content Management (20%)
- GoHawaii.com (20%)
- Dedicated Update Team (16%)
- HTA Resources (12%)
- Cultural Institutions and Local Stakeholders (8%)
- API Integrations for Real-Time Updates (8%)
- Partner Platforms (4%)
- Social Media and Advertising Channels (4%)
- Collaboration with Local Organizations (4%)
- Community Content Creators (4%)

There was common agreement that most of the content already exists on many different sites and platforms with varying degrees of accuracy, real-time information and updating. This premise supports the proposed need for a consolidated app. Platforms specifically noted by stakeholders included:
- DLNR and OuterSpatial systems
- HTA and HVB GoHawaiʻi
- Shaka Guide
- Open Table, TripAdvisor
- NOAA, state park systems

Government stakeholders noted unclear legislative goals and a disconnect between expectations and feasibility, including an ambiguous destination management definition.

The legislature has earmarked funds for this, but there is not a lot of detail in what this app should do, from you perspective what does the legislature want to see?

	Tourism	Tourism
Visitor Management and Traffic Control (25%)	4	25.00%
Revenue Generation and Transparent Funding (19%)	3	18.75%
It is unclear (19%)	3	18.75%
Efficiency and Modernization of Processes (13%)	2	12.50%
Resource Protection and Sustainable Tourism (6%)	1	6.25%
Public Safety and Visitor Security (6%)	1	6.25%
Demonstrating Early Success (6%)	1	6.25%
Disseminate Timely & Relevant Information (6%)	1	6.25%

Government Stakeholders: Essential Public Services and Information to Include in the App

- Emergency Alerts and Safety Information (32%)
- Ocean and Surf Safety Tips (17%)
- Cultural and Environmental Guidelines (15%)
- Public Transportation and Traffic Updates (12%)
- Local Attractions and Event Calendar (7%)
- Law Enforcement and Security Support (5%)
- Educational Content on Site Significance (5%)
- Wildlife and Environmental Respect Reminders (5%)
- Verified Booking Options (2%)
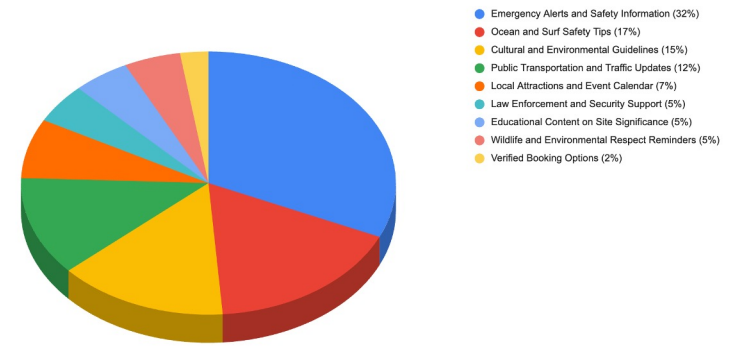
Nineteen interviews were conducted with government officials and stakeholders who were also asked four additional questions.

- The first question asked stakeholders what they think the legislature wants the app to accomplish. A few stakeholders voiced that it is unclear. One stakeholder expressed that there is a disconnect between legislative expectations and feasibility. Although destination management is highlighted, its ambiguous definition and lack of legislative consensus makes it difficult to answer this question for many of the stakeholders.
- Ten responses were related to visitor management and traffic control, revenue generation and transparent funding, efficiency and modernization of processes, and resource protection and sustainable tourism.

Government stakeholders lacked clear consensus from constituents and other stakeholders.

What are you hearing from your constituents or stakeholders regarding this project that we should know about?

	Government	Government
No Feedback (22%)	5	21.74%
Overcrowding and Visitor Management (13%)	3	13.04%
Skepticism About State Involvement (9%)	2	8.70%
Local Benefits and Resident Access (9%)	2	8.70%
Visitor Safety and Security (9%)	2	8.70%
Sustainability and Environmental Impact (9%)	2	8.70%
Mixed Support for Reservations and Access Controls (9%)	2	8.70%
First Time Hearing About the Initiative (9%)	2	8.70%
Consolidation and Redundancy Concerns (4%)	1	4.35%
Revenue Allocation Transparency (4%)	1	4.35%
General Support (4%)	1	4.35%

Government Stakeholders: Key Feedback from Constituents and Stakeholders on the App Project

- No Feedback (22%)
- Overcrowding and Visitor Management (13%)
- Skepticism About State Involvement (9%)
- Local Benefits and Resident Access (9%)
- Visitor Safety and Security (9%)
- Sustainability and Environmental Impact (9%)
- Mixed Support for Reservations and Access Controls (9%)
- First Time Hearing About the Intiative (9%)
- Consolidation and Redundancy Concerns (4%)
- Revenue Allocation Transparency (4%)
- General Support (4%)

- No real consensus emerged in the answers to this question. Answers, if given, varied. One stakeholder highlighted the general sentiment of skepticism about another tourism management app, pointing out that many stakeholders feel that there are too many competing initiatives and not enough coordination. There has been a recurring concern that there is a need for a single, effective platform to consolidate efforts and reduce redundancy.
- Some constituents may expect the app to provide control over visitor numbers through reservations, thereby also addressing community concerns regarding overcrowding and locals' access and benefits

Some of the ways to align the app with local and state tourism policies include promoting sustainable tourism, supporting DMAPs, and emphasizing cultural and environmental stewardship.

How can the app be aligned with local and state tourism policies and strategies?

	Government	Government
Promote Sustainable Tourism Practices (21%)	6	21.43%
Support Destination Management Action Plan (DMAP) (14%)	4	14.29%
Highlight Cultural and Environmental Stewardship (14%)	4	14.29%
Local Community Benefits (14%)	4	14.29%
Collaboration with Local Operators (14%)	4	14.29%
Support Existing Reservation Policies and Systems (11%)	3	10.71%
Visitor Safety and Security (11%)	3	10.71%

Government Stakeholders: Aligning the App with Local and State Tourism Policies and Strategies

- Promote Sustainable Tourism Practices (21%)
- Support Destination Management Action Plan (DMAP) (14%)
- Highlight Cultural and Environmental Stewardship (14%)
- Local Community Benefits (14%)
- Collaboration with Local Operators (14%)
- Support Existing Reservation Policies and Systems (11%)
- Visitor Safety and Security (11%)

Here are some of the responses that had specific suggestions:
- The app should respond to Destination Management Action Plans (DMAPs), aligning with tourism management strategies, especially related to visitor congestion.
- Align with policies by promoting sustainable tourism, supporting local businesses and ensuring resident access.
- App should integrate with local cultural and environmental education.

- Incorporate HTA's visitor management strategy and cultural initiatives like the Pono Pledge.
- Ensure that local communities benefit from tourism revenue.
- Keep communication open with local entities and stakeholders as the app is developed.

Emergency alerts and safety information were the most frequently mentioned public services to include in the app.

Are there any public services or information that should be included in the app?

	Government	Government
Emergency Alerts and Safety Information (32%)	13	31.71%
Ocean and Surf Safety Tips (17%)	7	17.07%
Cultural and Environmental Guidelines (15%)	6	14.63%
Public Transportation and Traffic Updates (12%)	5	12.20%
Local Attractions and Event Calendar (7%)	3	7.32%
Law Enforcement and Security Support (5%)	2	4.88%
Educational Content on Site Significance (5%)	2	4.88%
Wildlife and Environmental Respect Reminders (5%)	2	4.88%
Verified Booking Options (2%)	1	2.44%

Government Stakeholders: Essential Public Services and Information to Include in the App

- Emergency Alerts and Safety Information (32%)
- Ocean and Surf Safety Tips (17%)
- Cultural and Environmental Guidelines (15%)
- Public Transportation and Traffic Updates (12%)
- Local Attractions and Event Calendar (7%)
- Law Enforcement and Security Support (5%)
- Educational Content on Site Significance (5%)
- Wildlife and Environmental Respect Reminders (5%)
- Verified Booking Options (2%)

Emergency alerts and safety tips were common comments by the government stakeholders and overall. The emergency alerts, safety information, public service announcements and transportation options mentioned included:

- Safety tips for fire prevention, drowning prevention and general beach safety
- Emergency alerts for situations such as wildfires, tsunamis or hurricanes
- Transportation options, including alternative methods and accessibility

- Customs processes
- Educational and cultural guidance

Community stakeholders emphasized accurate information through official platforms, with suggestions like in-flight videos, community-driven content, and mandatory pre-visit educational videos to educate visitors on responsible tourism.

How can the app contribute to educating visitors about responsible tourism and respectful behavior while in Hawai'i?

	Community Stakeholders	Community Stakeholders
Cultural Etiquette and Environmental Guidelines (41%)	9	40.91%
Local Narratives and Site Significance (18%)	4	18.18%
Real-Time Updates on Site Capacity and Behavior Reminders (14%)	3	13.64%
Engaging and Bite-Sized Content (9%)	2	9.09%
Push Notifications and Location-Based Reminders (9%)	2	9.09%
Involvement of Community Members in Content Creation (5%)	1	4.55%
Incentivize Responsible Actions (5%)	1	4.55%

Community Stakeholders: Promoting Responsible Tourism

- Cultural Etiquette and Environmental Guidelines (41%)
- Local Narratives and Site Significance (18%)
- Real-Time Updates on Site Capacity and Behavior Reminders (14%)
- Engaging and Bite-Sized Content (9%)
- Push Notifications and Location-Based Reminders (9%)
- Involvement of Community Members in Content Creation (5%)
- Incentivize Responsible Actions (5%)

Twelve community stakeholders were interviewed and asked an additional 3 questions.
- The first question related to how the app could educate visitors about responsible tourism and respectful behavior. Responses included the importance of having reliable and accurate information and providing an official platform for educating visitors on knowledgeable and respectful behavior.
- Examples and ideas for providing content included the Hawaiian Airlines in-flight videos, engaging knowledgeable community members in content development, and requiring educational videos pre-visit (similar to terms & conditions for using the app).

" The subtle messages within the app have a bigger impact than a section that says 'do this, don't do that

– Community Stakeholder

Community stakeholders prioritized respect for community spaces and cultural sites, benefits and access for residents, and environmental and cultural preservation.

What are the most important concerns or priorities for your community regarding this app?

	Community Stakeholders	Community Stakeholders
Respect for Community Spaces and Cultural Sites (35%)	6	35.29%
Local Benefits and Resident Access (18%)	3	17.65%
Environmental and Cultural Preservation (18%)	3	17.65%
Repairing Relationships with Tourists (12%)	2	11.76%
Traffic and Safety Management (6%)	1	5.88%
Economic Support for Local Businesses (6%)	1	5.88%
Consistent Updates and Data Privacy (6%)	1	5.88%

Community Stakeholders: Community Concerns and Priorities for the App Development

- Respect for Community Spaces and Cultural Sites (35%)
- Local Benefits and Resident Access (18%)
- Environmental and Cultural Preservation (18%)
- Repairing Relationships with Tourists (12%)
- Traffic and Safety Management (6%)
- Economic Support for Local Businesses (6%)
- Consistent Updates and Data Privacy (6%)

This question generated more location specific responses as well as reiterated much of the previous responses.

Notable responses included:
- Residents need to benefit from the app as much as tourists do. Provide practical, daily use purposes for residents.
- Use of Lāna'i as a possible testing ground due to its small and controlled environment.
- Prioritize repair of relationships between locals and tourists. The app could be used to correct past negative tourism practices.
- Create new job opportunities for locals in the tourism industry.
- Emphasize the importance of supporting local businesses and further integrate locally sourced products and services.

Most stakeholders agreed that highlighting authentic, community-driven cultural and local events could enhance visitor engagement and foster appreciation of local culture and values like aloha 'āina.

How could the app enhance visitor engagement with community-led events or services?

	Community Stakeholders	All Stakeholders
Community-Endorsed Events and Activities (41%)	9	40.91%
Highlight Cultural and Educational Experiences (23%)	5	22.73%
Collaborate with Local Artists and Cultural Leaders (14%)	3	13.64%
Expand Events Beyond Tourist Hubs (9%)	2	9.09%
Promote Volunteer Opportunities (5%)	1	4.55%
Directory of Local Nonprofits and Programs (5%)	1	4.55%
Responsible Engagement Messaging (5%)	1	4.55%
In-App Recognition for Engagement (0%)	0	0.00%

Community Stakeholders: Enhancing Visitor Engagement with Community-Led Events and Services Through the App

- Community-Endorsed Events and Activities (41%)
- Highlight Cultural and Educational Experiences (23%)
- Collaborate with Local Artists and Cultural Leaders (14%)
- Expand Events Beyond Tourist Hubs (9%)
- Promote Volunteer Opportunities (5%)
- Directory of Local Nonprofits and Programs (5%)
- Responsible Engagement Messaging (5%)

- Most stakeholders agreed that highlighting cultural and local events, if authentic and community-driven could be helpful to enhance visitor engagement and encourage appreciation of local culture and values such as aloha 'āina. Examples of possible community-led experiences included farm tours by the Waipā Foundation and visits to Limahuli Gardens.
- Also suggested was partnering with nonprofits and the promotion of volunteerism, providing visitors an opportunity to engage in community projects such as beach cleanups, which positively impact the local community and environment. This interaction could potentially also help bridge the perceived widening gap between locals and visitors.

Supplier stakeholders identified promotional opportunities, incentives, and useful information for clients as the most valuable ways to engage with the app.

What would make the app valuable for your business to engage with?

	Suppliers	Suppliers
Promotional Opportunities and Incentives (25%)	4	25.00%
Provide Useful information for Clients (31%)	5	31.25%
Low-Cost or Free Listings (13%)	2	12.50%
Support for Small Businesses (19%)	3	18.75%
Highlighting Cultural Relevance (6%)	1	6.25%
Alignment with Educational and Conservation Goals (6%)	1	6.25%

Supplier Stakeholders: Key Features That Drive Business Engagement with the App

- Promotional Opportunities and Incentives (25%)
- Provide Useful information for Clients (31%)
- Low-Cost or Free Listings (13%)
- Support for Small Businesses (19%)
- Highlighting Cultural Relevance (6%)
- Alignment with Educational and Conservation Goals (6%)
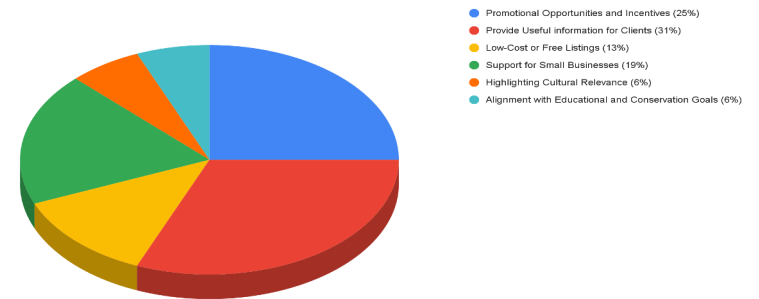
Thirteen stakeholders in the supplier area were interviewed and asked four supplier specific additional questions.

- The first question asked what would make the app valuable to encourage engagement. Responses were mainly related to opportunities for promotion of local businesses and providing useful information for customers and clients. Specific responses included:
  - Businesses already contribute by paying taxes, so a low-cost or free option should be offered to businesses to participate and engage.

- Businesses could offer promotions and incentives to users which would increase user adoption and benefit the businesses.
- Enhancing visitor experience by offering useful educational and informational content, including info aligning with local organizations' missions and purposes.
- Support of small businesses.
- Kamaʻāina rates for locals to enhance value and user adoption.

Exclusive discounts and promotions were the top features for driving engagement, followed by booking capabilities, with tools like push notifications and geo-fencing enhancing targeted, community-aligned engagement.

What features or partnerships would drive the highest engagement from your perspective?

	Suppliers	Suppliers
Exclusive Discounts and Promotions (25%)	4	25.00%
Booking and Reservation Capabilities (31%)	5	31.25%
Partnerships with Local Businesses and Cultural Organizations (25%)	4	25.00%
Push Notifications and Geo-Fencing (6%)	1	6.25%
Augmented Reality and Multimedia Content (6%)	1	6.25%
Curated Experiences and Incentives for Cultural Engagement (6%)	1	6.25%

Supplier Stakeholders: Features and Partnerships to Maximize Engagement

- Exclusive Discounts and Promotions (25%)
- Booking and Reservation Capabilities (31%)
- Partnerships with Local Businesses and Cultural Organizations (25%)
- Push Notifications and Geo-Fencing (6%)
- Augmented Reality and Multimedia Content (6%)
- Curated Experiences and Incentives for Cultural Engagement (6%)

- Exclusive discounts, incentives and promotions was the most referred to feature that would drive the highest engagement, followed by booking and reservation capabilities. Utilizing technology tools such as push notifications and geo-fencing for targeted information would also drive engagement, keeping in mind alignment with both community and visitor needs.
- One stakeholder suggested partnering with a booking platform such as Fair Harbor to ensure fairness and inclusivity for all operators and leveling the field for small businesses to be included. Another stakeholder commented that integration with larger businesses such as cruise lines and airlines would also drive higher engagement. This was also a common comment by many across the board.

Five supplier stakeholders supported the idea of supporting real-time communication or transactions with customers, while others emphasized integration and caution about mandatory location tracking.

Should the app support real-time communication or transactions with customers?

	Suppliers	Suppliers
Booking and Transactional Capabilities (36%)	4	36.36%
Customer Support with Live Agents or Chat Functions (18%)	2	18.18%
Support but not further details (18%)	2	18.18%
Real-Time Alerts for Safety and Closures (18%)	2	18.18%
Optional Location-Based Guidance (9%)	1	9.09%

Supplier Stakeholders: The Role of Real-Time Communication and Transactions in the App

- Booking and Transactional Capabilities (36%)
- Customer Support with Live Agents or Chat Functions (18%)
- Support but not further details (18%)
- Real-Time Alerts for Safety and Closures (18%)
- Optional Location-Based Guidance (9%)
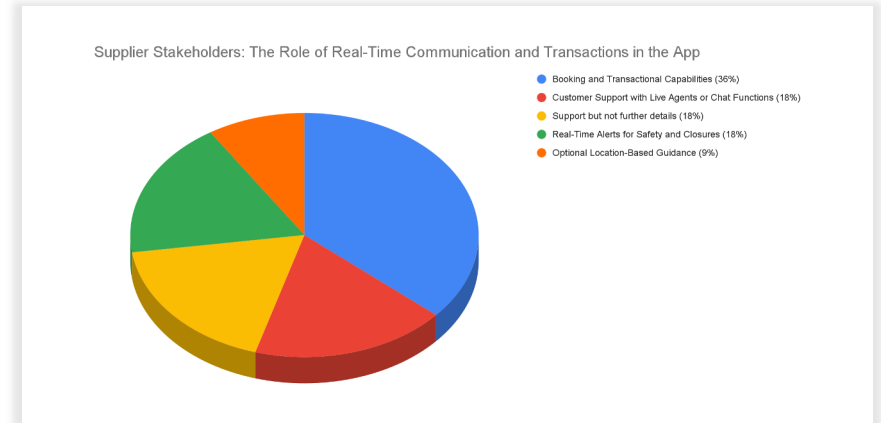
- There were five clear "yes" responses and a few ambiguous ones which emphasized the importance of integration and streamlining visitor interactions. Caution was urged that users may not want location tracking enabled, so interactive information upon request should be offered rather than solely location-based prompts.
- Another stakeholder agreed that real-time communication could be beneficial, however it would need to be supported by live agents or meaningful chat functions. Further, poor customer service would frustrate users and negatively impact usage.

Supplier stakeholders expressed willingness to promote the app, particularly if it provides value to visitors, locals, and businesses and aligns with their goals and Hawai'i's cultural and tourism objectives.

Would you be willing to promote this APP to your customers? Why or Why Not?

	Suppliers	Suppliers
Alignment with Business Goals (33%)	5	33.33%
Support for Cultural and Educational Objectives (27%)	4	26.67%
Alignment with Stewardship Goals (20%)	3	20.00%
Utility and Relevance to Visitor Experience (20%)	3	20.00%

Supplier Stakeholders: The Role of Real-Time Communication and Transactions in the App

- Alignment with Business Goals (33%)
- Support for Cultural and Educational Objectives (27%)
- Alignment with Stewardship Goals (20%)
- Utility and Relevance to Visitor Experience (20%)
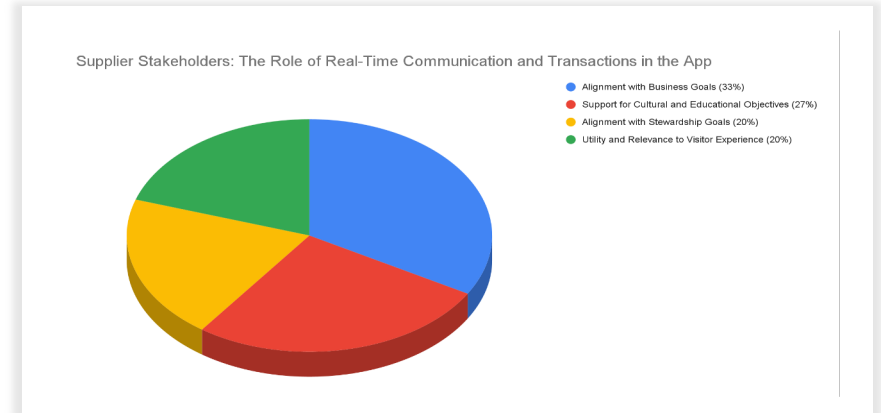
- All stakeholders in the supplier category said their organizations would be willing to promote or likely support promotion of the app to their customers, especially if there is value for visitors, locals and businesses. Stakeholders further mentioned that there is definitely potential if the app aligns with their organizations' goals and "aligns with Hawai'i's cultural and tourism objectives."

Anticipated technical challenges included system integration across stakeholders, data standardization, and ongoing maintenance, concerns echoed by many stakeholders outside of the technical category.

What technical challenges should we anticipate in the development process?
What lessons can we learn from other successful or unsuccessful destination apps?
What opportunities do you see for innovation or differentiation with this app?
How do you think the app should be maintained and updated over time?

	Technology	Technology
System Integration Across Stakeholders (18%)	3	17.65%
Data Standardization and API Integration (24%)	4	23.53%
Ongoing Maintenance and Updates (18%)	3	17.65%
User-Friendly UI/UX Design (12%)	2	11.76%
Compliance with Privacy Laws (12%)	2	11.76%
Internet Accessibility in Remote Areas (6%)	1	5.88%
Real-Time Updates and Geo-Fencing (6%)	1	5.88%

Apps & Technology Stakeholders: Anticipated Technical Challenges in App Development
- System Integration Across Stakeholders (18%)
- Data Standardization and API Integration (24%)
- Ongoing Maintenance and Updates (18%)
- User-Friendly UI/UX Design (12%)
- Compliance with Privacy Laws (12%)
- Internet Accessibility in Remote Areas (6%)
- Real-Time Updates and Geo-Fencing (6%)
- Talent and Resource Availability (6%)

Nine apps & technology stakeholders were interviewed and provided with four additional questions.

- The first question addressed anticipated technical challenges in the development process. The top three areas were 1) system integration across stakeholders; 2) data standardization; and 3) ongoing maintenance and updates. These challenges were also noted by many outside of this area.
- One stakeholder anticipated integration challenges revolving around integrating various disparate systems and ensuring collaboration without any one group attempting to monopolize the system.
- Although local developers would encouraged, the challenge of finding ones with the necessary skills and talent might be an issue.

Apps & tech stakeholders found that key lessons from other destination apps emphasized prioritizing real-time data and user-friendly design.

What technical challenges should we anticipate in the development process?
What lessons can we learn from other successful or unsuccessful destination apps?
What opportunities do you see for innovation or differentiation with this app?
How do you think the app should be maintained and updated over time?

	Technology	Technology
Prioritize Real-Time Data and Ease of Use (29%)	4	28.57%
Avoid Feature Creep and Keep It Focused (14%)	2	14.29%
Gamification and Interactive Features (14%)	2	14.29%
Geographic and Activity-Based Personalization (14%)	2	14.29%
Make the App Engaging and Memorable (14%)	2	14.29%
Effective Marketing and Demonstrating Value (7%)	1	7.14%

Apps & Technology Stakeholders: Lessons from Successful and Unsuccessful Destination Apps
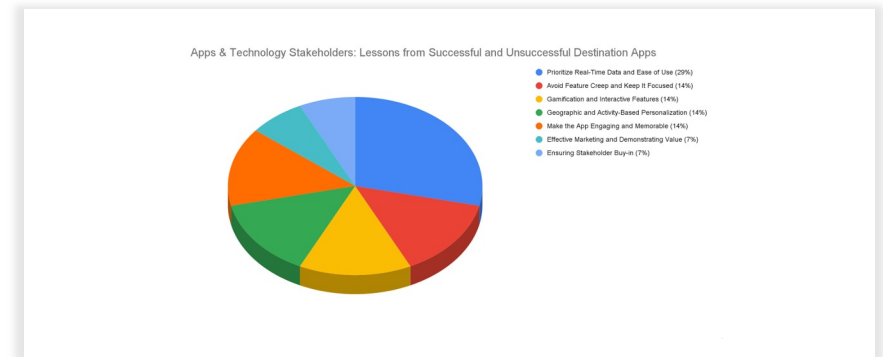
- Highlighted lessons to be learned from other successful and unsuccessful destination apps were mainly prioritizing real-time date and ease of use.
- Examples given were the Aulani and JTB apps. The Aulani app engages users through its interactive experiences, providing ease of use and utilizing gamification to boost engagement. Another example highlighted the JTB app which found that users often deleted the app after their visits. Making the app fun and engaging encourages users to keep the app even after they leave Hawaiʻi.

A variety of innovations or differentiations were mentioned, including gamified Eco-tourism, real-time safety and hazard alerts and augmented reality for cultural and historical engagement.

What technical challenges should we anticipate in the development process?
What lessons can we learn from other successful or unsuccessful destination apps?
What opportunities do you see for innovation or differentiation with this app?
How do you think the app should be maintained and updated over time?

	Technology	Technology
Real-Time Safety and Hazard Alerts (17%)	2	16.67%
Gamified Eco-Tourism and Badge System (25%)	3	25.00%
Augmented Reality (AR) for Cultural and Historical Engagement (25%)	3	25.00%
Culturally Curated and Immersive Itineraries (17%)	2	16.67%

Apps & Technology Stakeholders: Opportunities for Innovation
- Real-Time Safety and Hazard Alerts (17%)
- Gamified Eco-Tourism and Badge System (25%)
- Augmented Reality (AR) for Cultural and Historical Engagement (25%)
- Culturally Curated and Immersive Itineraries (17%)
- Interactive Games and Educational Tools (17%)
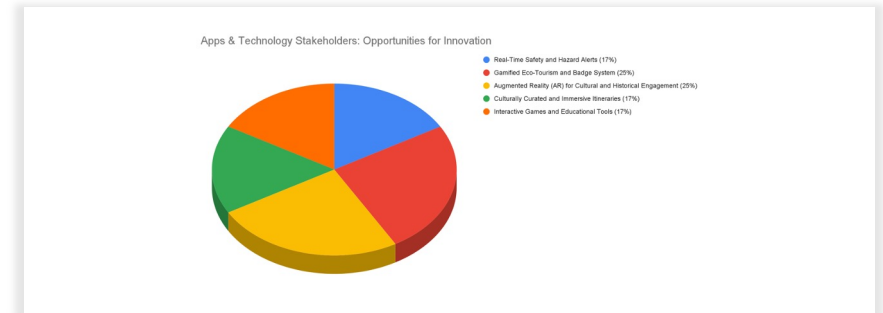
There were a variety of innovations or differentiation ideas put forth by this group. These included:
- AI for dynamic pricing and personalized experiences
- Hazard maps for tsunami evacuation routes
- Augmented reality and gamified experiences
- Accessible and engaging educational content, including eco-friendly practices for mindful tourism
- Dwell time tracking and location-based notifications
- Real-time visitor management information

A dedicated maintenance team, sustainable funding, user feedback loops, and regular content updates were recommended for the app's long-term upkeep.
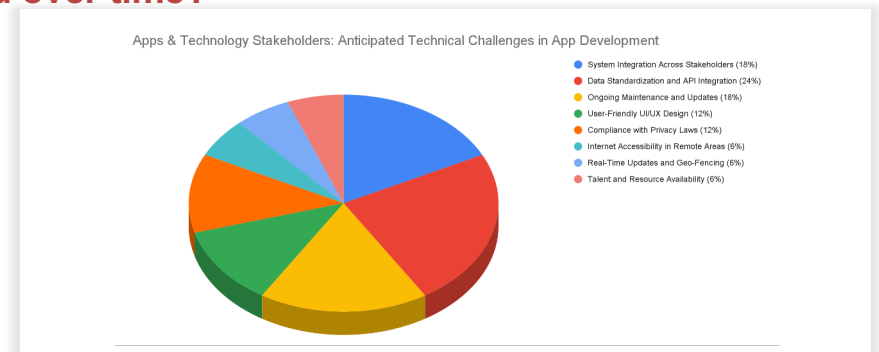
What technical challenges should we anticipate in the development process?
What lessons can we learn from other successful or unsuccessful destination apps?
What opportunities do you see for innovation or differentiation with this app?
How do you think the app should be maintained and updated over time?

	Technology	Technology
Dedicated Maintenance Team (25%)	3	25.00%
Long-Term Funding and Sustainable Budgeting (25%)	3	25.00%
User Feedback Loops and Content Refreshes (17%)	2	16.67%
Public-Private Partnership (8%)	1	8.33%
Leverage Real-Time Data Sources (8%)	1	8.33%
Annual or Semi-Annual Stakeholder Outreach (8%)	1	8.33%

Apps & Technology Stakeholders: Strategies for Long-Term Maintenance and Updates of the App
- Dedicated Maintenance Team (25%)
- Long-Term Funding and Sustainable Budgeting (25%)
- User Feedback Loops and Content Refreshes (17%)
- Public-Private Partnership (8%)
- Leverage Real-Time Data Sources (8%)
- Annual or Semi-Annual Stakeholder Outreach (8%)
- SaaS Model for Scalability and Efficiency (8%)

Thoughts in this area varied:

- Dedicated team continuously monitoring and updating based on usage data and feedback with long-term, possibly sustainable funding
- Constant updates and relevant features such as hazard maps
- Use of off-the-shelf software approach over open source to avoid long-term support issues
- Public-private partnership approach where the private sector ensures updates and new technology adaptations to prevent the app from becoming outdated

Appendix 2

Pre-Call Survey Results
Pages 172-180

The Pre-Call Survey results revealed strong participant support for the concept of an app, though opinions differed regarding specific features and feasibility.

The table below summarizes the Pre-Call Survey results. Optional demographic data was also collected, which can be found in the following pages, along with complete survey results and more details.

	Pre-Call Survey Question	Pre-Call Survey Response
1	Have you previously participated in or contributed to discussions regarding tourism-related digital platforms?	Yes 54%, No 36%
2	How familiar are you with the concept of smart tourism?	Not Familiar 13.1%, Somewhat Familiar 55.7%, Very Familiar 31.1%
3	How familiar are you with the proposal to create an app to improve destination management?	Not Familiar 21.3%, Somewhat Familiar 50.8%, Very Familiar 27.9%
4	If an app is developed to enhance destination management and visitor experience, please rank the following functionalities in order of importance to you.	Average rank in order of importance: Data from Third Party Sites (Surf Report, All Trains, etc.) 3.93, Supplier Information (eg. Air, Car, Hotels, Activites) 3.92, Event Calendar 3.56, Public Transportation Schedules 3.43, Reservations for State and County Parks 3.10, State Announcements and Alerts 2.90
5	How important do you think it is to have a centralized app for managing tourism in Hawai'i?	Scale Results: 1 - 0%, 2 - 6.6%, 3 - 26.2%, 4 - 21.3%, to 5 - 45.9% (Highest benefit at 5)
6	How well do you think this app could align with Hawai'i's broader tourism and economic development goals?	Scale Results: 1 - 1.6%, 2 - 8.2%, 3 - 27.9%, 4 - 29.5%, 5 - 32.8% (Perfect alignment at 5)
7	How successful do you believe a Hawai'i Smart Tourism destination app would be in achieving its goals of reducing environmental impact, enhancing visitor experience?	Scale Results (count of responses) : 1 - 1, 2 - 5, 3 - 18, 4 - 18, 5 - 19 (Highest likelihood at 5)
8	What are your top concerns about the development of this tourism app? (Select up to 2)	Cost/funding 32.8%, Technological challenges 21.3%, User adoption 34.4%, Cultural representation 9.8%, Other 1.6%: Privacy/security, Deciding on other app objectives, Lack of alignment to State's macroeconomic initiatives, etc., Partner & data aggregation
9	Should the app provide multilingual support (e.g., Japanese, Chinese, Korean) for this app, considering Hawai'i's visitor demographics?	Yes 96.7%, No 3.3%

The Pre-Call survey showed more than half of the stakeholders having previously participated in or contributed to previous discussions regarding tourism-related digital platforms.

54% of respondents had previously participated in or contributed to discussions regarding tourism-related platforms.

- 31% of respondents were very familiar with the Smart Tourism concept, 56% somewhat familiar, and approximately 13.1% not familiar at all.
- 21.3% of respondents were not familiar with the proposal to create an app with 50.8% somewhat familiar.

Have you previously participated in or contributed to discussions regarding tourism-related digital platforms?

Yes
54.1%

No
45.9%
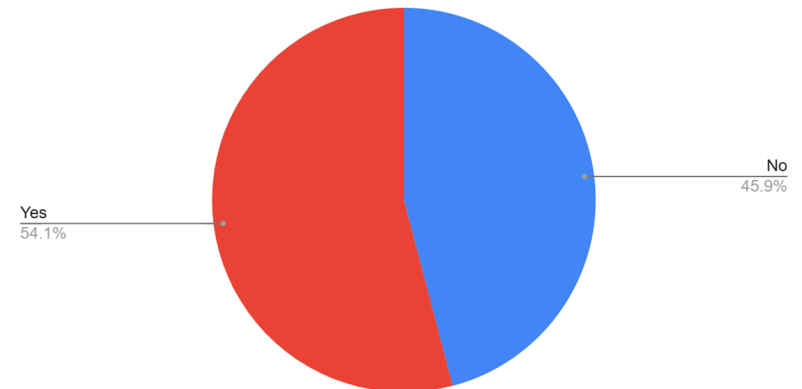
Pre-Call Survey results indicated that the concept of Smart Tourism and creation of an app had not yet created a strong awareness for the majority of the stakeholders.

Only 31.1% of stakeholders were very familiar with the proposal to create a destination management app, with 55.7% being somewhat familiar. Familiarity with the proposal to create an app to improve destination management showed a little less familiarity, with 21.3% not familiar at all with the idea.

The pre-call survey results indicate that the concept of Smart Tourism and related creation of an app had achieved some familiarity, but had not yet created a strong awareness for the majority of the stakeholders, with around 70% of stakeholders being either somewhat familiar or not familiar at all.

How familiar are you with the concept of Smart Tourism?

Very Familiar
31.1%

Somewhat Familiar
55.7%

Not Familiar
13.1%

How familiar are you with the proposal to create an App to improve destination management?

Not Familiar
21.3%

Somewhat Familiar
50.8%

Very Familiar
27.9%
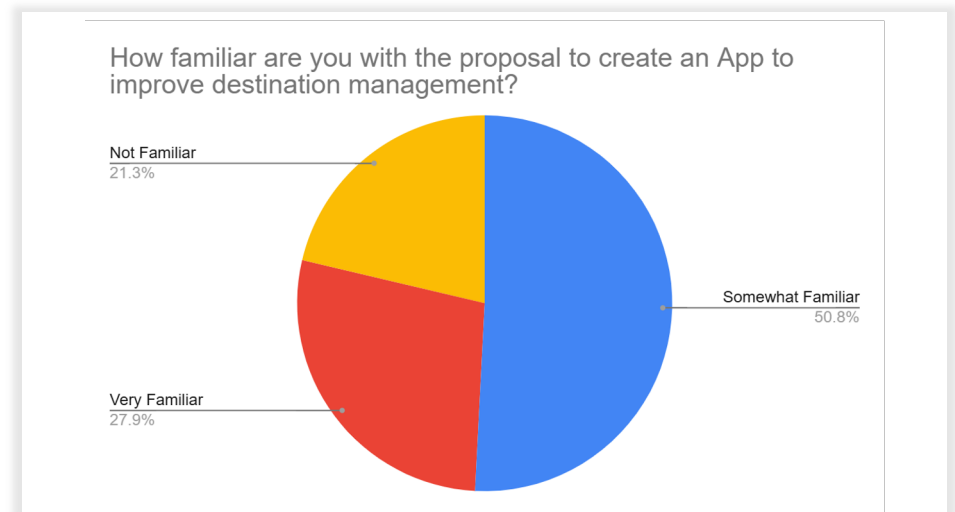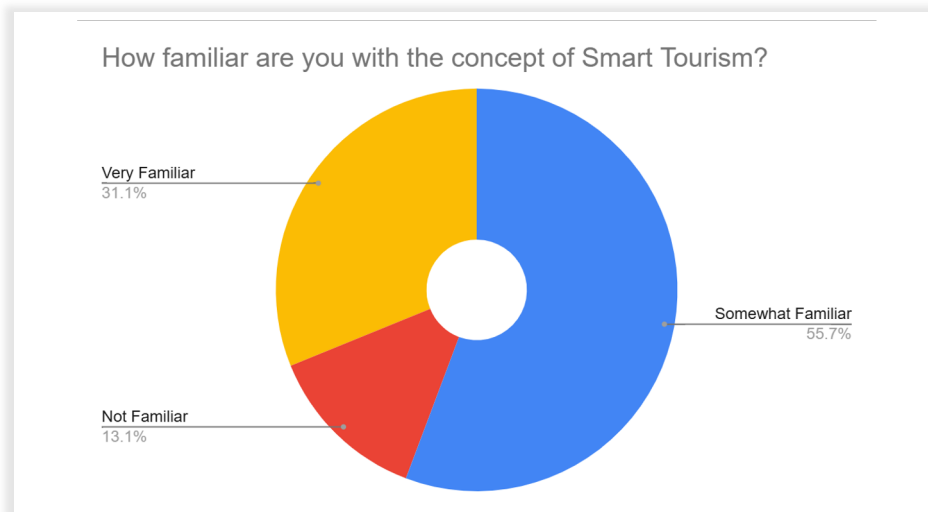
The Pre-Call Survey results revealed diverse perspectives on the prioritization of functions for an app designed to enhance destination management and improve the experience for both visitors and residents.

Respondents were asked to rank the following functionalities in order of importance:

- Reservations for State and County Parks

- Public Transportation Schedules

- Event Calendar

- Data from Third Party Sites (Surf Report, All Trails, etc.)

- State Announcements and Alerts

- Supplier Information (eg. Air, Car, Hotels, Activities)

The chart to the right plots the average ranking of the importance of each functionality.

If an app is developed to enhance destination management and visitor and resident experience, please rank the following functionalities in order of importance to you. (1 as most important and 6 as least important)
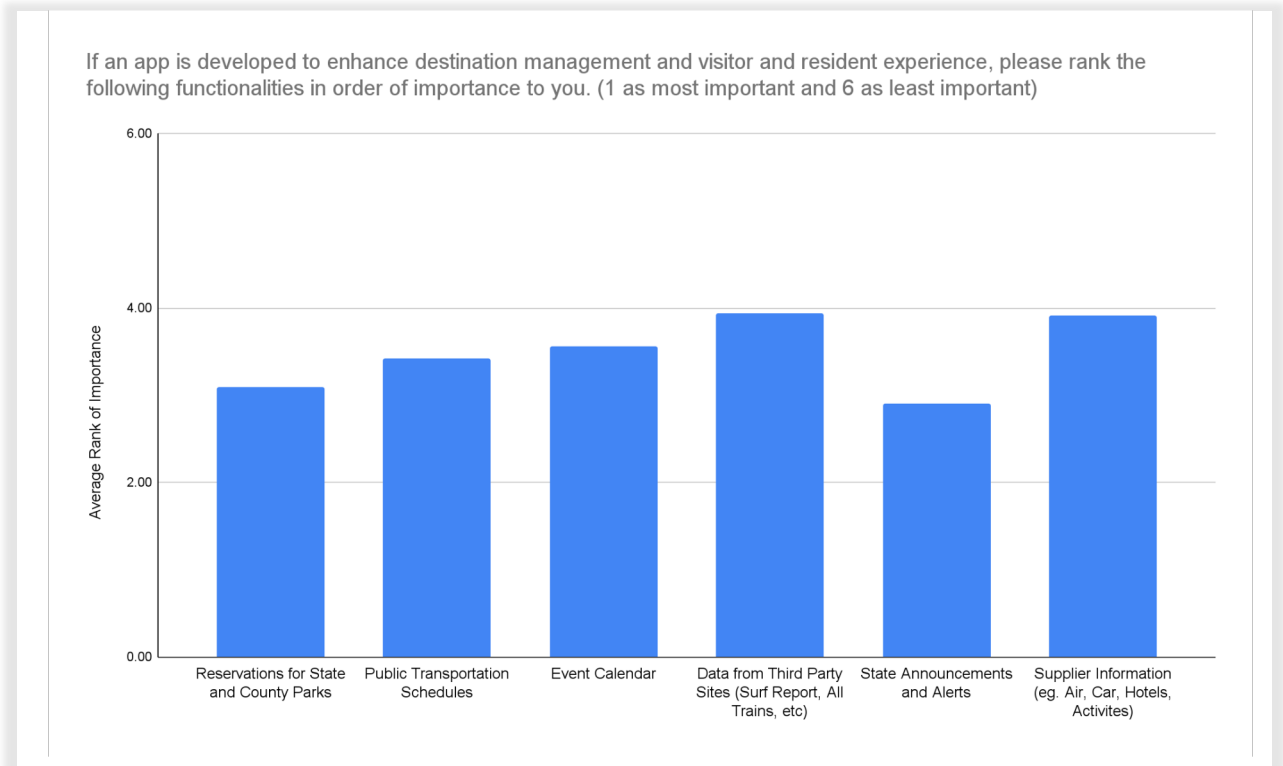
Over 93.4% of stakeholders find benefits to having a centralized app for managing tourism in Hawai'i and 62.3% agree that an app would align with Hawai'i's broader tourism and economic development goals.

Overall response regarding the importance of a centralized app for managing tourism in Hawai'i and whether the app would align with Hawai'i's broader tourism and economic development goals was positive:

- All respondents thought that there was some benefit to having a centralized app, with 93.4% of respondents rating at least 3 or higher on a scale of 1- no benefit to 5- significant benefit.

- 62.3% of respondents agreed, with a rating of at least 4 or above on a scale of 1- too many challenges to 5- aligns perfectly, that it was likely that the the app would align with Hawai'i's broader tourism and economic development goals.

How important do you think it is to have a centralized app for managing tourism in Hawaii? (1- no benefit, 5- significant benefit)
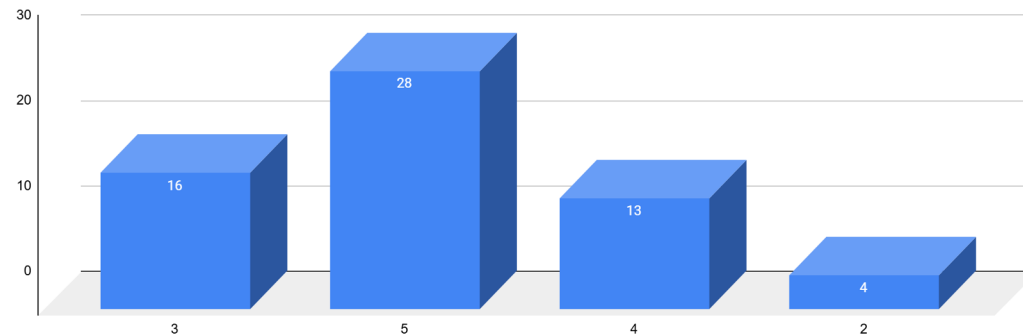
How well do you think this app could align with Hawaii's broader tourism and economic development goals?

1 - Does Not Align at All
1.6%
2 - Poor Alignment
8.2%
4 - Strong Alignment
29.5%
3 - Moderate Alignment
27.9%
5 - Perfect Alignment
32.8%
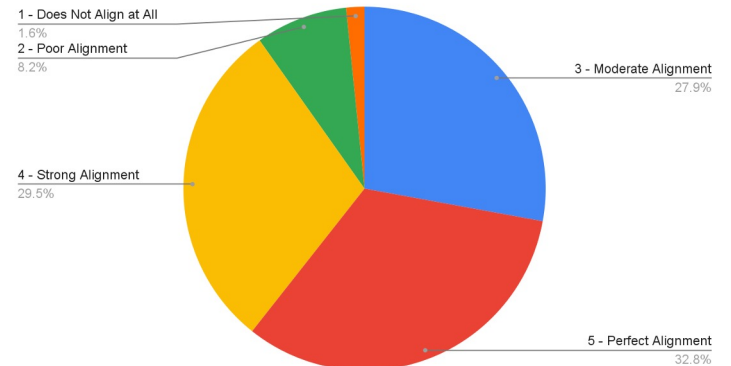
Almost all agreed that multilingual support in various languages is necessary considering Hawai'i's visitor demographics.

Hawai'i's own diverse cultures and nationalities encourage the support of various languages for Hawai'i's visitors. There was very little disparity in the response to this Pre-Call Survey question.
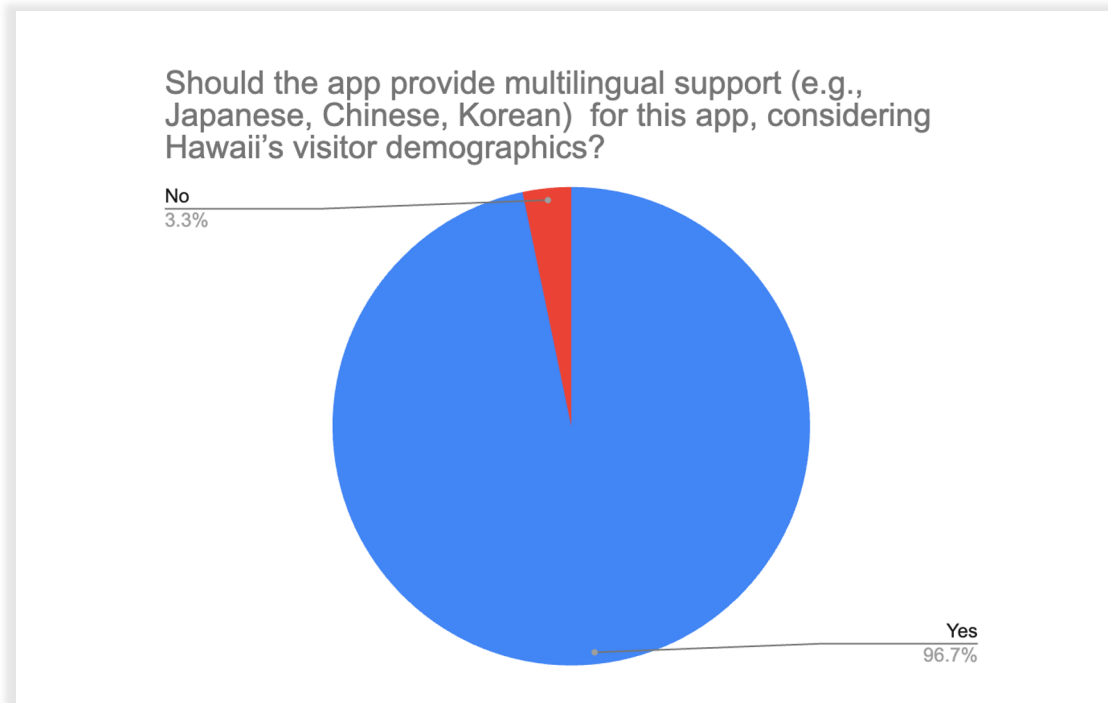
Should the app provide multilingual support (e.g., Japanese, Chinese, Korean) for this app, considering Hawaii's visitor demographics?

No
3.3%

Yes
96.7%

The Pre-Call Survey included optional demographic questions to offer a foundational understanding of the stakeholder population being interviewed.

Occupational Roles of Surveyed Stakeholders

Technology 1.6%
Professional 4.9%
Business Owner 9.8%
Retired 1.6%
Sales 3.3%
Government 26.2%
Management/Executive 49.2%
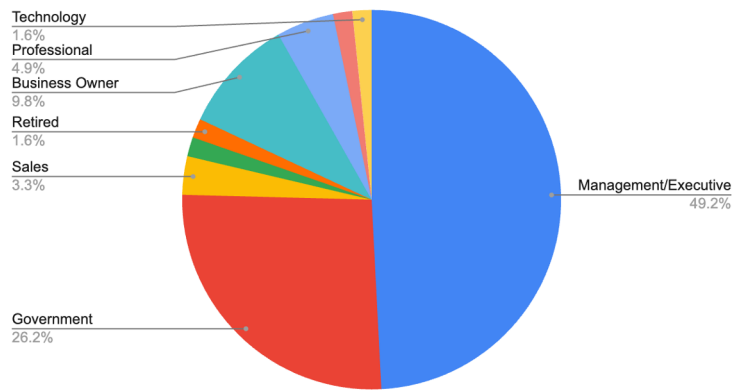
Surveyed Stakeholder Residence Across Hawaiian Islands

Maui 4.9%
Island of Hawai'i 4.9%
Moloka'i/Lana'i 1.6%
Kaua'i 9.8%
Do not live in Hawai'i 8.2%
O'ahu 70.5%
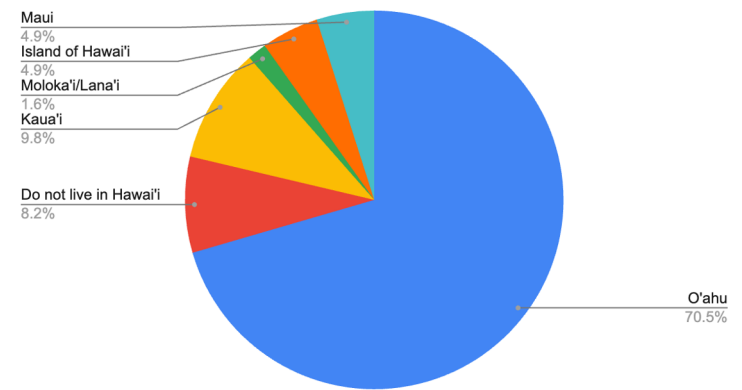
Scope Surveyed of Stakeholder Responsibilities: Statewide vs. Area-Specific

Hawaii Island 3.3%
Global 6.6%
Kauai 4.9%
Oahu 13.1%
Statewide 70.5%
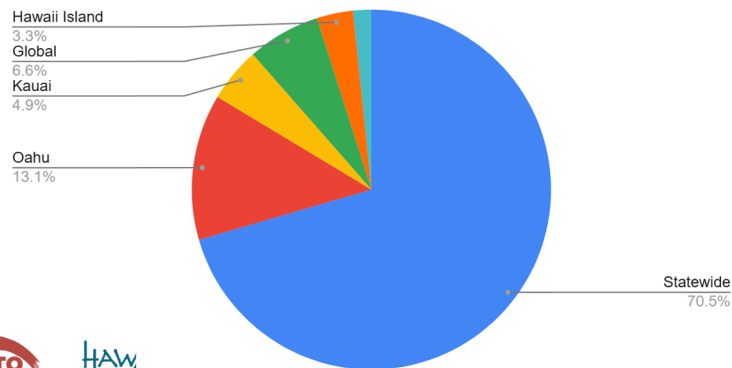
Years of Residency in Hawai'i Among Surveyed Stakeholders
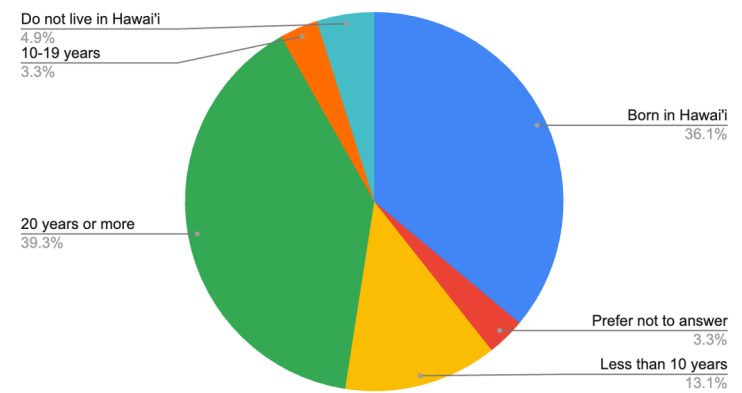
Do not live in Hawai'i 4.9%
10-19 years 3.3%
Born in Hawai'i 36.1%
20 years or more 39.3%
Prefer not to answer 3.3%
Less than 10 years 13.1%

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The Pre-Call Survey included optional demographic questions to provide a baseline profile of the stakeholder population participating in the interviews.
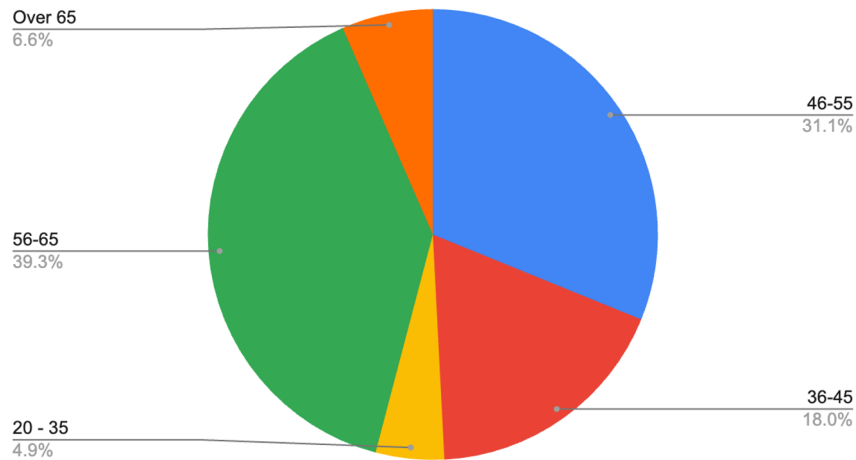
Ethnicities of Surveyed Stakeholders

- White (36%)
- Asian (23%)
- Hawaiian (20%)
- Japanese (10%)
- Hispanic/Latin American (5%)
- Filipino (5%)
- Mixed Ethnicity (1%)
- Black (1%)

Age Distribution of Surveyed Stakeholders

Over 65
6.6%

46-55
31.1%

56-65
39.3%

36-45
18.0%

20 - 35
4.9%
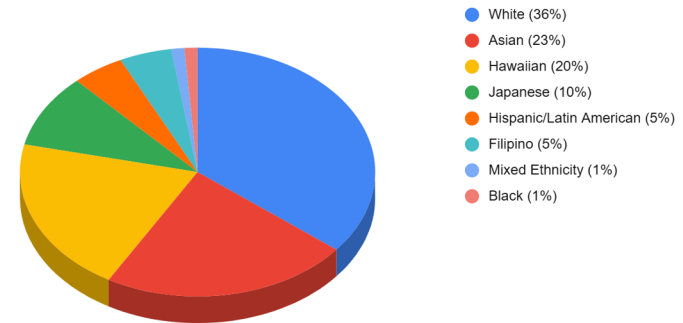
Gender Distribution of Surveyed Stakeholders

Female
47.5%

Male
52.5%
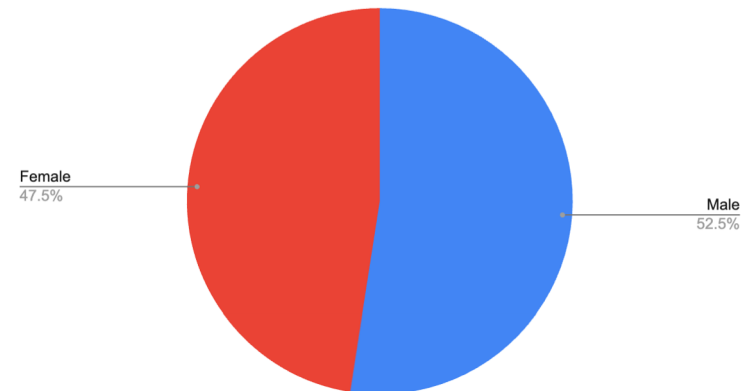
Appendix 3

Interview and Pre-Call Survey Questions
Pages 181-188

Interview Questions

Strategic Alignment and Vision

1 Based on my introduction and any knowledge you have about this initiative, what do you think should be the core objective of this app?

2 What problems do you think this app could solve?

3 How can the app support "Smart Tourism" practices?

4 Do you think this app should be primarily for visitors or also for residents?

5 If also residents what features and functionality might appeal to them that would get them to use the app?

Desired Features and Functionalities

1 What core features or functions do you believe are essential for the app's success?

2 How do you measure success?

3 Are there any specific features that you think are unique to Hawaiʻi's needs that should be prioritized?

Governance and Ownership

1 In your opinion, who should have primary ownership and oversight of the app (e.g., government agency, private sector, public-private partnership)?

Interview Questions (Continued 1)

Integration with Existing Systems

1. Are there existing state, local government platforms or services that the app should integrate with or link to?

2. Do you know what system(s) are used and whether they have an API or integration capabilities?

3. Besides the government platforms mentioned above are there other existing platforms or services that the app should integrate with or link to?

Strategic Alignment and Vision

1. What do you see as the biggest risks or challenges in developing and launching this app?

2. Getting people to use and download may be a challenge, any thoughts on how we can make visitors aware of and get them to download the app?

3. Do you have any thoughts on what to name the app?

4. How it should be marketed?

5. Many of the features and functionality we've discussed already exist on other platforms. Should the goal of this app be to link to those sites, integrate with them so the transactions feel seamless within the app, create our own version, or a combination of these approaches?

Interview Questions (Continued 2)

Business Model and Monetization

1 What are your thoughts on potential business models for the app? Should it be a public service, a monetized platform, or a hybrid?

2 If monetization is pursued, what strategies (e.g., in-app purchases, advertisements, partnerships) do you think would be most effective?

Stakeholder Collaboration

1 How do you see your organization contributing to the development, launch, or promotion of the app?

Strategic Alignment and Vision

1 Do you think building this app is a good idea and will be beneficial for visitors, residents of the state and the management of the destination?

User Experience

1 Are there any destination or other apps that you have used or looked at that are a good model for the Hawai'i App?

Closing and Next Steps

1 Is there anything else you'd like to add that we haven't covered?

Stakeholder Specific Interview Questions

Z-Tourism

1. What partnerships or integrations with existing tourism services would be beneficial?

2. What kinds of content (e.g., events, tours, local attractions) should be prioritized on the app?

3. Does this content already exist? If so where? And how do you think the content can be kept current?

Z- Government

1. The legislature has earmarked funds for this, but there is not a lot of detail in what this app should do, from you perspective what does the legislature want to see?

2. What are you hearing from your constituents or stakeholders regarding this project that we should know about?

3. How can the app be aligned with local and state tourism policies and strategies?

4. Are there any public services or information that should be included in the app?

Z - Community Stakeholders

1. How can the app contribute to educating visitors about responsible tourism and respectful behavior while in Hawaiʻi?

2. What are the most important concerns or priorities for your community regarding this app?

3. How could the app enhance visitor engagement with community-led events or services?

SASSATO

HAWAIʻI TOURISM
AUTHORITY

Stakeholder Specific Interview Questions (Continued)

Z. Suppliers (Airlines, Hotels, F&B, etc.)

1 What would make the app valuable for your business to engage with?

2 What features or partnerships would drive the highest engagement from your perspective?

3 Should the app support real-time communication or transactions with customers?

4 Would you be willing to promote this app to your customers? Why or Why Not?

Z. Technology Experts

1 What technical challenges should we anticipate in the development process?

2 What lessons can we learn from other successful or unsuccessful destination apps?

3 What opportunities do you see for innovation or differentiation with this app?

4 How do you think the app should be maintained and updated over time?

Pre-Call Survey Questions

Pre-Call Survey Questions

1. Have you previously participated in or contributed to discussions regarding tourism-related digital platforms?

2. How familiar are you with the concept of Smart Tourism?

3. How familiar are you with the proposal to create an App to improve destination management?

4. If an app is developed to enhance destination management and visitor and resident experience, please rank the following functionalities in order of importance to you. (1 as most important and 6 as least important)

5. How important do you think it is to have a centralized app for managing tourism in Hawaiʻi?

6. How well do you think this app could align with Hawaiʻi's broader tourism and economic development goals?

7. How successful do you believe a Hawaiʻi Smart Tourism destination app would be in achieving its goals of reducing environmental impact, enhancing visitor experience?

8. What are your top concerns about the development of this tourism app? (Select up to 2)

9. Should the app provide multilingual support (e.g., Japanese, Chinese, Korean) is for this app, considering Hawaiʻi's visitor demographics?

Pre-Call Survey Questions (Continued)

Participant Demographic Information

1 Where do you live?

2 How many years have you lived in Hawai'i?

3 What is your age?

4 What is your occupation/role?

5 Is your occupation/role responsibility Statewide or Area-specific?

6 Gender

7 What is your ethnicity?

Desired Features and Functionality List
Pages 189-194

Summarized Features and Functionality Analysis

Desired Functionality	Destination Management (1 DM, 2 Maybe, 3 No)	In Go Hawai'i App?	In Current Gov't App/Website	Exists in Private Sector
Weather and Environmental Updates	1 - DM	No	Yes	Yes
Dynamic Navigation and Wayfinding	1 - DM	Partially	Partially	Yes
Real-Time Alerts and Updates	1 - DM	Partially	Partially	Yes
Parking and Transportation Management	1 - DM	No	No	Yes
Alternative and Sustainable Tourism Guidance	1 - DM	Partially	Partially	Partially
Safety and Emergency Features	1 - DM	Partially	Partially	Partially
Visitor Flow and Congestion Management	1 - DM	No	No	Partially
Integrated Reservation Systems	1 - DM	Partially	No	No
Accessibility and Inclusivity	2 - Maybe	Yes	Yes	Yes
Cultural and Educational Resources	2 - Maybe	Partially	Partially	Yes
Local Expertise and Support	2 - Maybe	Partially	Partially	Yes
Local Guide	2 - Maybe	Partially	No	Yes
Event and Activity Listings	2 - Maybe	Partially	Partially	Partially
Local Business and Vendor Support	2 - Maybe	Partially	Partially	Partially
Augmented Reality and Technological Features	2 - Maybe	No	No	Partially
Interactive Feedback and Engagement	2 - Maybe	No	No	Partially
Community and Nonprofit Engagement	3 - No	Partially	Yes	Yes
Dining and Cuisine Exploration	3 - No	Yes	No	Yes
Community-Only Features	3 - No	No	Yes	Partially
Cultural Preservation	3 - No	Partially	Partially	Partially
Personalized Trip Planning	3 - No	Partially	Partially	Partially
App Monetization and Incentives	3 - No	No	Partially	Partially
Employment and Economic Opportunities	3 - No	No	Partially	Partially
Integration with Existing Platforms	3 - No	No	Partially	Partially

Full Desired Features and Functionality List

Desired Functionality	Category	Destination Management (1 DM, 2 Maybe, 3 No)	In Go Hawai'i App?	In Current Gov't App/Website	Exists in Private Sector
Digitized Agriculture Forms	Accessibility and User Convenience	2	No	No	No
Resources for disabled visitors	Accessibility and User Convenience	2	Yes (Website)	Yes	Yes
Live Support	Accessibility and User Convenience	3	No	No	No
Destination Information	Accessibility and User Convenience	3	Yes	Yes	No
Donation Feature	Community Engagement and Local Support	2	No	Yes	Yes
Directory of Local Nonprofits	Community Engagement and Local Support	2	No	Yes	Yes
Volunteer and Community Service Opportunities	Community Engagement and Local Support	2	Yes	Yes	Yes
Behavioral Guidelines	Community Engagement and Local Support	2	Yes	Yes	Yes
Local Ambassador/Service Integration	Community Engagement and Local Support	3	No	No	Yes
Job Postings	Community Engagement and Local Support	3	No	No	Yes
Curated Audio Tours	Cultural and Educational Experiences	2	No	No	Yes
Visitor Guidance / Local Tips	Cultural and Educational Experiences	2	Yes	Yes	Yes
Education	Cultural and Educational Experiences	2	Yes	Yes	Yes
Cultural Experiences	Cultural and Educational Experiences	2	Yes	Yes	Yes
Pidgin English Translator	Cultural and Educational Experiences	3	No	No	Yes
Hawaiian Word of the Day	Cultural and Educational Experiences	3	No	No	Yes
Hawaiian Language Resources	Cultural and Educational Experiences	3	No	Yes	Yes
Hawaiian Homestead Information and Education	Cultural and Educational Experiences	3	No	Yes	No
Cultural Storytelling (Local Stories)	Cultural and Educational Experiences	3	No	No	Yes
Real-Time Alerts and Notifications	Emergency and Safety Features	1	No	Yes	Yes

Full Desired Features and Functionality List (Continued 1)

Desired Functionality	Category	Destination Management (1 DM, 2 Maybe, 3 No)	In Go Hawai'i App?	In Current Gov't App/Website	Exists in Private Sector
Geolocation Alerts and Insights	Emergency and Safety Features	1	Yes	No	Yes
Weather Updates and Surf Reports	Emergency and Safety Features	2	No	Yes	Yes
Panic Button	Emergency and Safety Features	2	No	No	No
Local Laws and Regulations	Emergency and Safety Features	2	No	Yes	No
Drowning Prevention Tips	Emergency and Safety Features	2	No	Yes	Yes
Safety Information	Emergency and Safety Features	2	Yes	Yes	Yes
Ocean Safety Information	Emergency and Safety Features	2	Yes	Yes	Yes
Request for Services	Emergency and Safety Features	3	No	No	No
Emergency Preparedness Information and Response	Emergency and Safety Features	3	Yes	Yes	No
Sustainable and Eco-Tourism Experiences	Environmental Conservation	2	Yes	Yes	Yes
Environmental Conservation and Green Initiatives	Environmental Conservation	2	Yes	Yes	Yes
Top 10 Attractions	Events and Activities	2	No	No	Yes
Local Attractions / Lesser-Known Attractions Directory	Events and Activities	2	Yes	No	Yes
Wellness and Mindfulness	Events and Activities	3	No	No	Yes
Local Cuisine and Dining	Events and Activities	3	Yes	No	Yes
Local / Community Event Calendar	Events and Activities	3	Yes	Yes	No
Free Activities Directory	Events and Activities	3	No	Yes	Yes
Peer-to-Peer Ratings	Incentives and Rewards	2	No	No	Yes
Features for Local Residents	Incentives and Rewards	2	No	Yes	No
Webcams of popular spots	Incentives and Rewards	3	No	Yes	Yes
Staycation Promotion	Incentives and Rewards	3	No	No	Yes

Full Desired Features and Functionality List (Continued 2)

Desired Functionality	Category	Destination Management (1 DM, 2 Maybe, 3 No)	In Go Hawaiʻi App?	In Current Gov't App/Website	Exists in Private Sector
Locals/Resident-Only Access	Incentives and Rewards	3	No	Yes	Yes
Incentive Programs and Gamification	Incentives and Rewards	3	No	No	Yes
Exclusive App Events and Programs	Incentives and Rewards	3	No	No	Yes
Dynamic Pricing	Incentives and Rewards	3	No	No	Yes
Integration with Platforms and Government Resources	Integration and Collaboration	2	No	Yes	No
Social Media Integration	Integration and Collaboration	3	No	No	N/A
Short-Term Rental Integration	Integration and Collaboration	3	No	No	Yes
Private Sector Activity Booking	Integration and Collaboration	3	No	No	Yes
Influencer & User-Generated Content	Integration and Collaboration	3	No	No	N/A
Vendor/Attraction Directory	Local Business and Vendor Support	2	Yes	Yes	Yes
Local and Hawaiian-Owned Business Directory	Local Business and Vendor Support	2	No	Yes	Yes
Comprehensive Listings	Local Business and Vendor Support	2	Yes	No	Yes
Retail/Vendor Marketplace	Local Business and Vendor Support	3	No	Yes	No
County-Specific Versions	Local Business and Vendor Support	3	No	No	No
Traffic and Travel Updates	Navigation and Wayfinding	1	No	Yes	Yes
Route Suggestions	Navigation and Wayfinding	1	No	Yes	Yes
Parking Availability & Management	Navigation and Wayfinding	1	No	No	Yes
Wayfinding Features	Navigation and Wayfinding	2	Yes	Yes	Yes
Interactive Digital Mapping	Navigation and Wayfinding	2	Yes	No	Yes
Geolocation and Navigation	Navigation and Wayfinding	2	Yes	No	Yes
Personalized Trip Planner	Personalization and Gamification	3	No	No	Yes

Full Desired Features and Functionality List (Continued 3)

Desired Functionality	Category	Destination Management (1 DM, 2 Maybe, 3 No)	In Go Hawai'i App?	In Current Gov't App/Website	Exists in Private Sector
Hawai'i GPT	Personalization and Gamification	3	No	No	No
Augmented Reality	Personalization and Gamification	3	No	No	Yes
Visitor Satisfaction Surveys	Revenue and Feedback Mechanisms	2	No	No	No
Fees and Payments System	Revenue and Feedback Mechanisms	2	No	Yes	N/A
Visitor Tracking	Visitor Management and Flow	1	No	No	No
Visitor Flow Management	Visitor Management and Flow	1	No	No	No
Redirection to Safer Attractions/Alternative Activities	Visitor Management and Flow	1	No	No	No
Real-Time Updates and Visitor Assistance	Visitor Management and Flow	1	No	No	No
Public Transit Integration	Visitor Management and Flow	1	No	No	Yes
Park Reservation System Integration	Visitor Management and Flow	1	No	No	No
Location-based Services	Visitor Management and Flow	1	No	No	Yes
Heat Mapping	Visitor Management and Flow	1	No	No	Yes
Comprehensive Reservation System	Visitor Management and Flow	1	No	No	No
Capacity and Congestion Management	Visitor Management and Flow	1	No	No	No
Biki Bike Integration	Visitor Management and Flow	2	No	No	Yes
Cruise Line Integration	Visitor Management and Flow	3	No	Yes	Yes

Existing App Research
Pages 195-214

Appendix 5: Existing App Research

Hawai'i Apps

App Name	Purpose of App	Business Model	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Hawai'i News Now Weather	Weather & Surf Conditions	Advertising Supported	100,000	1,090	4.6	5,400	4.7
KHON2 WX - Radar & Forecasts	Weather & Surf Conditions	Advertising Supported	10,000	100	4.3	1,600	4.6
Kaua'i Beach Guide	Travel Guides	Advertising Supported	1,000	86	4.4	615	4.8
Maui Now	News	Advertising Supported	1,000	40	3.7	303	4.8
Big Island Now	News	Advertising Supported	1,000	46	4.6	250	4.8
Island Weather - KITV4	Weather & Surf Conditions	Advertising Supported	10,000	52	3.6	125	4.6
Kaua'i Travel by TripBucket	Travel Guides	Advertising Supported	1,000	7	3.2	67	4.6
Maui Happy Hours	Dining and Food	Advertising Supported	5,000	27	5	23	4.3
Maui Activities	Travel Guides	Advertising Supported, In-App Purchases	N/A	N/A	N/A	5	3.4
The Garden Island News	News	Advertising Supported, Subscription Model	N/A	N/A	N/A	166	4.4
Hawai'i Travel Guide ..	Travel Guides	Freemium	1,000	13	3.4	168	4.7
Honolulu Travel Guide .	Travel Guides	Freemium	500	0	N/A	80	4.7
O'ahu Bucket List	Travel Guides	Freemium, In-App Purchases	100	0	N/A	6	4.3
HEA-TheBus	Transportation & Navigation	Freemium	5,000	45	3.7	N/A	N/A
DaBus2 - The O'ahu Bus App	Transportation & Navigation	Government Funded	100,000	881	3.8	294	2.7
HNL Info	News	Government Funded	10,000	66	3.3	33	2.6
Honolulu 311	News	Government Funded	10,000	163	2.6	32	2.7
GoHawai'i App	Travel Guides	Government Funded	10,000	29	2.7	16	2.6
Maui Bus	Transportation & Navigation	Government Funded	10,000	74	4	13	3.5
The Kaua'i Bus Tracker	Transportation & Navigation	Government Funded	1,000	5	2.8	10	2.5

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Hawaiʻi Apps (Continued)

App Name	Purpose of App	Business Model	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Map of Hawaiʻi offline	Transportation & Navigation	In-App Purchases	5,000	25	4.9	N/A	N/A
Shaka Guide | GPS Audio Tours	Tour	In-App Purchases	10,000	1,110	4.8	7,400	4.9
Shaka Kauaʻi Audio Tour Guide	Tour	In-App Purchases	10,000	1,040	4.8	4,300	4.8
Big Island Hawaiʻi Tour Guide	Tour	In-App Purchases	10,000	878	4.7	3,600	4.8
Oʻahu GPS Audio Tour Guide	Tour	In-App Purchases	10,000	955	4.7	3,500	4.9
Kauaʻi Revealed Drive Tour	Tour	In-App Purchases	N/A	N/A	N/A	910	4.8
Big Island Revealed Drive Tour	Tour	In-App Purchases	N/A	N/A	N/A	595	4.8
Maui Revealed Drive Tour	Tour	In-App Purchases	N/A	N/A	N/A	474	4.8
Hana Revealed Drive Tour	Tour	In-App Purchases	N/A	N/A	N/A	36	4.4
Maui Snorkeling Guide	Travel Guides	In-App Purchases	100	0	N/A	10	4.6
Marine Weather Forecast Pro	Weather & Surf Conditions	In-App Purchases, Advertising Supported	50,000	659	4.1	14,000	4.7
Kauaʻi Hawaiʻi Audio Tour Guide	Tour	In-App Purchases, Advertising Supported	1,000	21	4.4	39	4.4
Lānaʻi Guide	Travel Guides	In-App Purchases, Freemium	1,000	8	2.4	8	4.4
Road to Hana Maui GyPSy Guide	Tour	Paid App	N/A	N/A	N/A	4,800	4.9
Kauaʻi Offline Island Guide	Travel Guides	Paid App	N/A	N/A	N/A	21	5

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Appendix 5: Existing App Research

DMO Apps

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
365 Things to Do in Houston	Events Information, Local Shopping, Dining and Food	Advertising Supported	Visit Widget LLC	5,000	79	4.6	1,300	4.8
Visit New England	Travel Guides, Events Information, Local Shopping	Advertising Supported	Visit Widget LLC	500	7	5	56	4.7
Up North Local	Travel Guides, Local Shopping, Events Information	Advertising Supported	Visit Widget LLC	100	10	4.9	25	4.9
Beer City Brewsader	Local Shopping, Events Information	Advertising Supported	Visit Widget LLC	10,000	95	2.7	8	3
The Marco Review Visitor Guide	Travel Guides, Local Shopping, Events Information	Advertising Supported	Visit Widget LLC	10,000	58	4.3	2	5
Edinburgh Travel Guide	Travel Guides	Freemium	ETIPS INC	5,000	0	N/A	181	4.8
Copenhagen Travel Guide	Travel Guides	Freemium	ETIPS INC	10,000	0	N/A	159	4.7
Texas Wine Lover	Travel Guides, Local Shopping	Freemium	Visit Widget LLC	500	28	4.9	96	4.9
Japan Travel - Route,Map,Guide	Transportation & Navigation, Travel Guides	Freemium, Advertising Supported	Navitime	1,000,000	10,800	4.1	2,000	4.7
TravelOK	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	100,000	944	4.3	5,700	4.7
The Official MTA App	Transportation & Navigation	Government Funded	MTA	1,000,000	4,710	4.6	5,000	4.3
Visit London Official Guide	Travel Guides, Events Information, Local Shopping	Government Funded	London Official Guide	500,000	1,960	4.5	2,600	4.8
VISIT FLORIDA	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	10,000	209	4.3	2,500	4.8

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 1)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Blue Ridge GA!	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	10,000	153	4.8	2,200	4.9
National Park Service	Travel Guides	Government Funded	National Park Service	1,000,000	1,180	4.8	1,900	4.6
Visit Lake Tahoe	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	10,000	145	4.7	1,600	4.8
Visit JAX!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	5,000	153	4.6	1,200	4.8
Visit Waco TX	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	5,000	104	4.8	1,100	2.8
Discover Ruidoso	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	5,000	130	4.8	913	4.9
Visit Mackinac Island Michigan	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	5,000	76	4.6	662	4.8
Smokies Travel Hub	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	1,000	45	4.7	556	4.8
Hello Eerie	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	10,000	139	4.4	497	4.8
Visit Pagosa Springs	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	1,000	40	4.8	413	4.8
Visit Santa Fe!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	46	4.7	399	4.8

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 2)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Yuma, AZ!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	26	4.7	149	4.8
Visit El Paso	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	10,000	80	4.1	142	4.7
Experience Abu Dhabi Official	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Visit Abu Dhabi	100,000	1,770	4.6	137	4.5
Visit Southwest Michigan	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Southwest Michigan	500	0	N/A	137	4.8
Visit Palestine, TX!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	32	4.4	128	4.8
Indian Lake	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	1,000	28	4.9	125	4.8
Visit Singapore Travel Guide	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Visit Singapore	500,000	2,290	4.3	122	4.8
Naturally McHenry County	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	28	4.6	122	4.8
Visit Fairfield County Ohio	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	40	4.7	115	4.8
I Love NY Official Travel App	Travel Guides, Events Information, Local Shopping	Government Funded	I Love NY	50,000	653	4.4	108	3.3
Experience Jackson Michigan	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	34	4.6	105	4.9

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 3)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Central Florida	Travel Guides, Events Information, Dining and Food	Government Funded	Visit Widget LLC	1,000	48	4.6	103	4.8
Visit Johnstown, PA!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	16	4.6	101	4.7
Visit Seguin TX!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	28	4.8	99	4.8
See Monterey	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	10,000	88	4.4	96	4.8
Visit Nac!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	22	4.9	92	4.9
McKinney TX!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	30	4.9	89	4.9
Visit Kerrville TX!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	5	5	89	4.8
Escape to Buckeye Lake	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	15	4.7	89	4.8
Visit Petoskey Area	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	12	4.7	87	4.9
Sunflower Summer	Travel Guides, Educational	Government Funded	Sunflower Summer	50,000	249	4	80	4.2
Discover St. Ignace	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	25	4.7	76	4.8

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Appendix 5: Existing App Research

DMO Apps (Continued 4)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Phoenix	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	30	4.6	76	4.8
Visit MoCo	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	21	4.5	73	4.8
Explore Steuben	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	16	4.3	72	4.8
Discover Downstate Illinois	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	30	4.7	69	4.8
Visit Steamboat Springs!	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	500	8	4.7	67	4.9
Visit Wichita Falls TX	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	26	4.8	66	4.9
VISIT FRESNO COUNTY	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	20	4.9	64	4.8
Visit Saudi - روح السعودية	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Visit Saudi	100,000	1,120	3.3	62	4.2
Visit Chillicothe Ohio	Travel Guides, Local Shopping, Events Information	Government Funded	Visit Widget LLC	500	8	4.5	55	4.8
Visit Beavers Bend Cabin Country	Travel Guides, Hiking & Outdoor Adventure, Accommodation Booking	Government Funded	Visit Widget LLC	500	6	5	49	4.8
Visit The Osage	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	100	5	4.8	49	4.8

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 5)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Clarksdale	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	12	4	43	4.9
Finger Lakes Farm Country	Travel Guides, Local Shopping, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	500	9	4.8	41	4.9
Explore Del Rio, Texas!	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	100	0	N/A	41	4.4
Visit Harrisonburg VA!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	10	4.9	40	4.9
Visit Sault Ste. Marie MI	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	15	4.8	38	4.8
Visit Chicago Southland!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	0	N/A	38	4.8
Explore North Little Rock!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	5	5	38	4.8
Visit Amarillo	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	7	3.6	37	4.9
Visit Laredo, TX	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	10,000	26	4.4	36	4.8
Visit Valdosta	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	16	4.8	36	4.9
Heritage Corridor	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	10	4.7	30	4.9

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 6)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Douglasville	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	6	4.7	28	4.8
Visit League City TX!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	7	4.9	26	4.9
Experience OC	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	20	4.7	25	4.9
Chahtapreneur	Business	Government Funded	Visit Widget LLC	500	13	4.5	23	5
Visit Dubai	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Dubai	100,000	1,260	4.2	22	4.5
Meet Mt. Pleasant, MI	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	5	4.2	22	4.9
Woodway 311	City Services	Government Funded	Visit Widget LLC	100	0	N/A	22	4.7
MyGlendale, CA	Travel Guides, Health & Safety, City Services	Government Funded	Visit Widget LLC	1,000	39	2.5	20	3.5
Visit Miami OK!	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	7	3.2	20	4.9
Heart of Appalachia	Travel Guides, Hiking & Outdoor Adventure, Language & Cultural Guides	Government Funded	Visit Widget LLC	100	0	N/A	20	4.7
Discover Atlanta.	Travel Guides, Events Information, Local Shopping	Government Funded	Discover Atlanta	10,000	50	3.8	19	3.7

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 7)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Santa Claus, Ind., Area	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	5	5	19	4.9
Creole Nature Trail	Travel Guides, Wildlife & Nature Conservation	Government Funded	N/A	10,000	71	4.4	15	4.3
Visit The Colony	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	15	5
Dubai Calendar	Events Information	Government Funded	Visit Dubai	100,000	1,050	3.3	13	4
Visit Mooresville	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	13	4.8
Visit Gallup NM	Travel Guides, Hiking & Outdoor Adventure, Language & Cultural Guides	Government Funded	Visit Widget LLC	100	6	5	12	5
Visit Laramie Wyoming	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	11	5
Visit Crawford	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	11	4.7
kptourism	Travel Guides, Language & Cultural Guides, Hiking & Outdoor Adventure	Government Funded	N/A	10,000	0	N/A	9	4.1
Amelia Island Mobile App	Travel Guides, Events Information, Local Shopping	Government Funded	Amelia Island	1,000	0	N/A	9	3.9
Alabama Road Trips	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Alabama Travel	10,000	76	4.5	8	5

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 8)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Little Falls Minnesota	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	8	5
Visit Gatlinburg	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	100,000	380	3.9	6	5
Madrid Movil	Transportation & Navigation, Health & Safety	Government Funded	Ayuntamiento de Madrid	500,000	5,570	3.6	5	3.4
Vietnam Travel-Du lich Vietnam	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	Vietnam Tourism	10,000	0	N/A	5	3.4
Valle d'Aosta Events	Events Information, Travel Guides	Government Funded	Tourism VDA	10,000	0	N/A	5	3
Bahrain	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Bahrain	5,000	0	N/A	5	5
Travel Wyoming	Travel Guides, Hiking & Outdoor Adventure, Events Information	Government Funded	Visit Widget LLC	1,000	17	4.5	5	4
Discover Bristol TN | VA	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	0	N/A	5	12
Travel Philippines	Travel Guides, Health & Safety	Government Funded	Travel Philippines	50,000	146	4.3	4	3
Visit Orlando	Travel Guides, Events Information, Dining and Food	Government Funded	Visit Widget LLC	100,000	258	4	3	5
Amazing Thailand	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Amazing Thailand	100,000	353	3.1	3	2.3

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 9)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Incredible !ndia	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	Incredible India	50,000	405	3.4	3	5
Kennebec Valley Explorer	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Kennebec Valley	5,000	0	N/A	3	5
Explore Cochrane	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	500	0	N/A	3	5
Explore Asheville	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	0	N/A	3	3.7
Eco Tourism UAE	Travel Guides, Wildlife & Nature Conservation, Hiking & Outdoor Adventure	Government Funded	N/A	1,000	0	N/A	2	5
Myanmar Be Enchanted	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	Tourism Myanmar	1,000	0	N/A	2	5
Irving On The Rocks	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	0	N/A	2	5
Prince William Co Rec Mapper	Hiking & Outdoor Adventure, Travel Guides	Government Funded	Visit Widget LLC	100	0	N/A	2	5
Visit Kokomo, IN	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	5	0	N/A	2	4
慢遊雲林	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	N/A	N/A	N/A	N/A	1	5

SASSATO HAWAI'I TOURISM AUTHORITY

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 10)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit València Official guide	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Visit Valencia	10,000	0	0	1	2
Visit New Jersey	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	5,000	27	4.2	1	1
VisitNorman	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	500	8	3.9	1	5
Harrisburg Arts District	Travel Guides, Events Information, Language & Cultural Guides	Government Funded	Visit Widget LLC	100	0	N/A	1	5
MyDelrayBeach	Travel Guides, Events Information, Health & Safety	Government Funded	Visit Widget LLC	100	0	N/A	1	5
Visit Greater Bridgeport, WV	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	1	5
Visit Greater Palm Springs	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	100	0	N/A	1	5
James City County Parks & Rec	Travel Guides, Activity Booking, Events Information	Government Funded	Apptegy Play Store	50	0	N/A	1	2
Rajasthan Tourism Official	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	RajCOMP Info Services Ltd.	N/A	N/A	N/A	0	N/A
文旅市场通	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	tour.yunlin.gov	N/A	N/A	N/A	0	N/A

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 11)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Travel Malaysia by TM	Travel Guides, Events Information, Local Shopping	Government Funded	Malaysia Travel	5,000	0	N/A	0	N/A
Visit Seychelles	Travel Guides, Events Information, Local Shopping	Government Funded	N/A	1,000	0	N/A	0	N/A
Visit Greater St. Cloud	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	5	4	0	N/A
Stay in Waco, TX	Accommodation Booking, Travel Guides, Events Information	Government Funded	Visit Widget LLC	1,000	0	N/A	0	N/A
Destination Dayton	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	9	4.5	0	N/A
Discover Albany	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	1,000	5	4.4	0	N/A
Bryson City	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	500	0	N/A	0	N/A
Ayia Napa & Protaras Guide	Travel Guides, Events Information, Local Shopping	Government Funded	N/A	100	0	N/A	0	N/A
Explore Nash County	Travel Guides, Events Information, Hiking & Outdoor Adventure	Government Funded	Visit Widget LLC	50	0	N/A	0	N/A
South Shore Passport	Travel Guides, Events Information, Local Shopping	Government Funded	Visit Widget LLC	50	0	N/A	0	N/A

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 12)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Pittsburgh	Travel Guides, Events Information, Local Shopping	Government Funded	Simpleview	5	0	N/A	0	N/A
Boom or Bust Byway	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	Visit Widget LLC	5	0	N/A	0	N/A
NJ TRANSIT Mobile App	Transportation & Navigation	Government Funded, Advertising Supported	NJ Transit	1,000,000	14,900	4	227,300	4.8
Discover LA	Travel Guides, Events Information, Local Shopping	Government Funded, Advertising Supported	Discover LA	10,000	323	4.5	2,200	4.7
La Mia Liguria	Transportation & Navigation, Travel Guides	Government Funded	N/A	10,000	N/A	N/A	N/A	N/A
Feel Florence	Transportation & Navigation, Travel Guides	Government Funded	N/A	10,000	N/A	N/A	N/A	N/A
I amsterdam City Card app	Transportation & Navigation, Travel Guides, Events Information	In-App Purchases	N/A	100,000	254	2.9	20	1.8
Go City: Travel Plan & Tickets	Activity Booking, Travel Guides	In-App Purchases	Go City	500,000	956	3.1	19,400	4.7
Sagrada Familia Official	Travel Guides, Language & Cultural Guides	In-App Purchases	Sagrada Familia	1,000,000	1,250	2.5	227	2.1
Copenhagen Card City Guide	Travel Guides, Language & Cultural Guides, Transportation & Navigation	In-App Purchases, Commision-Based (Affiliate Model), Advertising Supported	Fonden Wonderful Copenhagen	100,000	290	4.2	17	3.9

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

DMO Apps (Continued 13)

App Name	Purpose of App	Business Model	Developer	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Visit Pittsburgh	Travel Guides, Events Information, Local Shopping	Government Funded	Simpleview	5	0	N/A	0	N/A
Boom or Bust Byway	Travel Guides, Language & Cultural Guides, Events Information	Government Funded	Visit Widget LLC	5	0	N/A	0	N/A
NJ TRANSIT Mobile App	Transportation & Navigation	Government Funded, Advertising Supported	NJ Transit	1,000,000	14,900	4	227,300	4.8
Discover LA	Travel Guides, Events Information, Local Shopping	Government Funded, Advertising Supported	Discover LA	10,000	323	4.5	2,200	4.7
La Mia Liguria	Transportation & Navigation, Travel Guides	Government Funded	N/A	10,000	N/A	N/A	N/A	N/A
Feel Florence	Transportation & Navigation, Travel Guides	Government Funded	N/A	10,000	N/A	N/A	N/A	N/A
I amsterdam City Card app	Transportation & Navigation, Travel Guides, Events Information	In-App Purchases	N/A	100,000	254	2.9	20	1.8
Go City: Travel Plan & Tickets	Activity Booking, Travel Guides	In-App Purchases	Go City	500,000	956	3.1	19,400	4.7
Sagrada Familia Official	Travel Guides, Language & Cultural Guides	In-App Purchases	Sagrada Familia	1,000,000	1,250	2.5	227	2.1
Copenhagen Card City Guide	Travel Guides, Language & Cultural Guides, Transportation & Navigation	In-App Purchases, Commision-Based (Affiliate Model), Advertising Supported	Fonden Wonderful Copenhagen	100,000	290	4.2	17	3.9

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Tourism Related Apps

App Name	Purpose of App	Business Model	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Vrbo Vacation Rentals	Accommodation Booking	Commision-Based (Affiliate Model)	10,000,000	133,000	4.8	2,100,000	4.8
Yelp: Food, Delivery & Reviews	Dining and Food, Local Shopping	Freemium	50,000,000	586,000	4.6	1,200,000	4.4
AllTrails: Hike, Bike & Run	Hiking & Outdoor Adventure	Advertising Supported, In-App Purchases	10,000,000	336,000	4.8	1,000,000	4.9
AirBNB	Accommodation Booking, Activity Booking	Commision-Based (Affiliate Model)	100,000,000	1,590,000	4.4	650,600	4.8
Transit • Subway & Bus Times	Transportation & Navigation	Freemium	10,000,000	238,000	4.6	604,700	4.6
Skyscanner	Accommodation Booking, Travel Deal, Flights	Commision-Based (Affiliate Model), Advertising Supported	50,000,000	1,200,000	4.8	449,500	4.8
Tripadvisor: Plan & Book Trips	Travel Planning, Activity Booking	Commision-Based (Affiliate Model)	100,000,000	1,460,000	4.4	370,100	4.8
Recreation.gov	Activity Booking, Hiking & Outdoor Adventure	Government Funded	1,000,000	58,800	4.8	232,000	4.9
TripIt: Travel Planner	Travel Planning	Freemium	5,000,000	84,000	4.7	226,000	4.8
ParkWhiz - #1 Parking App	Parking Booking	Commision-Based (Affiliate Model)	1,000,000	23,600	4	162,500	4.8
GetYourGuide: Travel & Tickets	Activity Booking, Travel Guides	Commision-Based (Affiliate Model)	10,000,000	119,000	4.6	130,300	4.9
Viator Tours & Attractions	Activity Booking, Travel Guides	Commision-Based (Affiliate Model)	1,000,000	42,800	4.8	119,600	4.9

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Tourism Related Apps (Continued)

App Name	Purpose of App	Business Model	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Citymapper: All Live Transit	Transportation & Navigation	In-App Purchases, Advertising Supported, Freemium	10,000,000	291,000	4.8	76,000	4.9
Surfline: Wave & Surf Reports	Weather & Surf Conditions	In-App Purchases, Advertising Supported	500,000	8,370	4.5	23,000	4.7
Wanderlog - Travel Planner	Travel Planning	Freemium	1,000,000	17,900	4.7	18,600	4.9
Bounce: Luggage Storage Nearby	Luggage Storage	Commision-Based (Affiliate Model)	500,000	7,560	4.4	17,000	4.9
ChargePoint®	Parking Booking	Freemium	1,000,000	44,400	4.5	15,600	4.5
Visit a City	Travel Guides	Freemium	1,000,000	18,400	4.7	13,000	4.8
Klook	Accommodation Booking, Activity Booking, Travel Deal	Commision-Based (Affiliate Model)	10,000,000	117,000	4.3	5,800	4.7
Out Of Office - OOO.	Travel Planning	Freemium	10,000	87	4.8	3,600	4.9
PackPoint	Travel Planning	Freemium, In-App Purchases	1,000,000	40,500	4.6	1,900	4.7
Global Blue - Shop Tax Free	Local Shopping	Commision-Based (Affiliate Model)	500,000	1,960	2.6	725	3.4
WithLocals	Activity Booking, Travel Guides	Commision-Based (Affiliate Model)	100,000	1,080	4.3	257	4.6

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Amusement Park and Theme Park Apps

App Name	Purpose of App	Business Model	Number of Downloads (Google Play)	Number of Reviews (Google Play)	Stars (Google Play)	Number of Reviews (App Store)	Stars (App Store)
Universal Orlando Resort	Activity Booking, Transportation & Navigation, Events Information	Freemium	5,000,000	8,440	3.1	396,300	4.8
Disneyland®	Activity Booking, Transportation & Navigation, Events Information	Freemium	5,000,000	83,000	4.5	1,500,000	4.7
Universal Orlando Resort	Activity Booking, Transportation & Navigation, Events Information	Freemium	5,000,000	8,440	3.1	396,300	4.8
My Disney Experience	Activity Booking, Transportation & Navigation, Events Information	Freemium	5,000,000	147,000	4.4	2,500,000	4.6
Universal Studios Hollywood™	Activity Booking, Transportation & Navigation, Events Information	Freemium	1,000,000	1,810	3.5	164,200	4.8
Six Flags	Activity Booking, Transportation & Navigation, Events Information	Freemium	1,000,000	35,100	4.4	167,100	4.6
Royal Caribbean International	Activity Booking, Transportation & Navigation, Events Information	Freemium	1,000,000	45,800	4.5	804,600	4.8
Carnival HUB	Activity Booking, Transportation & Navigation, Events Information	Freemium	1,000,000	151,000	4.6	354,600	4.7
Cruise Norwegian - NCL	Activity Booking, Transportation & Navigation, Events Information	Freemium	1,000,000	12,500	3.8	103,100	4.8
Aulani Resort	Activity Booking, Transportation & Navigation, Events Information, Dining and Food, Travel Guides	Freemium	50,000	106	3.6	202	2.1

*Base Google numbers are broad ranges 10K is 10-50K, 100K is 100K-500K. To calculate estimated minimum overall downloads to include Apple multiply the Google Download number by 2.44.

Appendix 6

App Analysis - What Makes For a Successful App
Pages 215-224

The most successful apps on the market today represent various categories from social media to shopping and communication to entertainment, showcasing a widespread appeal to app usage and user engagement across different demographics and regions.

Instagram
The leading social media platform with 182.8 million downloads in Q2 2024 (the most downloaded app during that period).

TikTok
A major player in social media, consistently ranks as a top app across various regions.

Temu
This shopping app topped the download charts in the US in Q1 2024.

Whatsapp Messenger
It was one of the most downloaded apps globally with 46.2 million downloads in the first half of 2024.

Threads
Ranks among the top downloaded apps in multiple categories..

CapCut
A video editing app, particularly popular among content creators.

YouTube
Continues to dominate as a video streaming platform, consistently ranking in high downloads across iOs and Android.

Telegram
Known for its focus on privacy and security, remains one of the top messaging apps worldwide.

Snapchat
Maintains its popularity among younger demographics and ranks high in download statistics.

Facebook
Facebook remains a significant player with a substantial number of downloads.

While attributes of successful apps are generally similar across industries, tourism apps have more specific needs such as offline utilities, geolocation, multilingual support, and third-party integration that contribute to their success.

Offline Functionality	Geolocation Services	Seasonal Versatility	Multilingual and Cultural Sensitivity
Tourism apps must be accessible offline due to the nature of travel, where users might not always have access to internet connectivity. Whether it's for navigation, guides, or itineraries, offline capability is crucial to enhancing the user experience while traveling. For example, map and guide apps like *Tripwolf* are successful because they provide offline access to maps and travel guides, making them valuable tools for tourists exploring remote areas.	Integrating geolocation features is essential for helping users find nearby attractions, restaurants, and services. This function allows tourists to make the most of their visit by discovering places of interest in real time. apps like *The Fork* are successful in using geolocation to help users find local dining options while on vacation.	A successful tourism app should cater to year-round travelers. While summer is the peak season for many destinations, apps that provide relevant information for off-season travel (such as winter sports or cultural events) offer greater utility and engagement. This increases the app's profitability and relevance beyond just peak travel times.	Tourism apps often cater to a global audience, so including multiple language options and culturally sensitive content is essential.

Rich Media Integration	Personalized Experiences	Push Notifications and Real-Time Updates	Integration with Third-Party Services
Including rich media such as images, videos, and interactive content significantly enhances the app's user engagement. Visual content helps users explore destinations virtually before visiting and makes planning trips more enjoyable. This is particularly important for promoting local attractions and providing visual tours.	Personalization features, such as itinerary planners or activity recommendations based on user preferences, can significantly improve the user experience. apps like *Go City* offer customizable itineraries and activity suggestions, providing users with tailored experiences based on their interests.	Keeping users informed of changes in travel plans, weather alerts, or available discounts through push notifications ensures they remain engaged with the app. It helps users stay updated about their trips, making the app more useful in real-time travel scenarios.	Successful tourism apps often integrate with third-party services like hotel booking platforms, flight search engines, and transportation systems. This allows users to plan their entire trip within a single app, making the experience more seamless. For example, booking and payment integrations help users make reservations easily and securely.

These apps have several similar characteristics that contribute to their success that not only attract a large number of users but also retain them over time, helping the apps to stay successful in a highly competitive app market.

Personalization and AI Integration

Many top apps use AI to provide personalized content and recommendations, enhancing the user experience.

Intuitive and User-Friendly Design

Successful apps have simple, easy-to-use interfaces that allow users to quickly accomplish their goals, whether it's posting a photo or sending a message.

Key Characteristics of Successful apps

Monetization Strategies

While not always immediately profitable, successful apps have clear monetization strategies, whether through advertising, in-app purchases, or subscriptions.

Solving a Clear Need

Whether it's communication (Whatsapp), entertainment (TikTok), or sharing experiences (Instagram), these apps fulfill clear user needs or desires.

Cross-Platform Availability

The most successful apps are typically available on both iOS and Android, maximizing their potential user base.

User-friendly design, real-time and offline functionality, and customization are essential for success. High-quality local content, frequent updates, and support for local businesses drive engagement, while niche apps offering specialized solutions can capture specific audiences. Prioritizing these features can enhance user experience and app adoption of a Hawai'i super tourism app.

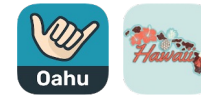| User Experience and Interface Matter	Real-Time and Offline Functionality Are Crucial	Customization and Personalization Features	High-Quality Content and Local Insights
apps with intuitive, user-friendly designs, such as *Hawai'iverse* and *Shaka Guide*, are highly rated. Users appreciate a clean, simple interface that allows seamless navigation between features like local deals and tour content. Visually appealing apps, such as *I'm In Hawai'i*, further enhance the experience by showcasing Hawai'i's beauty. apps with poor design or frequent crashes, like *GoHawai'i app* and *HNL Info*, struggle to retain users despite offering valuable information.	Real-time updates, especially for weather and transportation, are a major user expectation. apps like *Hawai'i News Now Weather* and *DaBus2* are valuable for providing real-time data, though frequent crashes limit their effectiveness. Offline access is also essential for tour and map apps such as *Shaka Guide* and *Kaua'i Revealed Drive Tour*, enabling users to explore areas without an internet connection, a key feature in remote regions of Hawai'i.	apps that offer customization, such as creating personalized itineraries or setting preferences, are better received by users. apps like *O'ahu GPS Audio Tour Guide* and *Hawai'i Travel Guide* excel in this area, allowing travelers to tailor their experience to their specific needs, enhancing usability for various types of travelers.	apps that provide cultural and historical insights significantly improve the user experience. For instance, *Shaka Guide* and *Maui Snorkeling Guide* are praised for their storytelling and deep local knowledge, making the apps more than just navigation tools—they enrich the travel experience. In contrast, apps that simply aggregate general information, such as *Honolulu Travel Guide*, tend to see lower user engagement.

Successful apps offer a wide range of services, from attraction and accommodation information to dining guides, event calendars, transportation details, booking options, and local tips, enhancing the overall visitor experience.

Attraction Information	Accommodation Listings	Dining Guides	Event Calendars	Transportation Info
Detailed descriptions of historical sites, and natural wonders.	Information on hotels, resorts, and other lodging options.	Recommendations for cafes, restaurants, and local cuisine.	Up-to-date info on local events, festivals, and performances.	Details on public transit, parking, and navigation for the destination.

Visit London Official Guide	**Visit JAX!**	**365 Things to Do in Houston**	**Visit Santa Fe!**	**NJ TRANSIT Mobile app**
Offers detailed descriptions of iconic landmarks, museums, and hidden gems throughout London.	Features a wide range of lodging options in Jacksonville, from luxury hotels to budget-friendly accommodations.	Highlights local eateries, food trucks, and culinary hotspots across Houston's diverse neighborhoods.	Maintains an up-to-date calendar of cultural events, art exhibitions, and seasonal festivals in Santa Fe.	Provides real-time transit updates, route planning, and ticketing for New Jersey's public transportation system.

Successful apps offer a wide range of services, from attraction and accommodation information to dining guides, event calendars, transportation details, booking options, and local tips, enhancing the overall visitor experience.

Booking Services	Local Tips and Insights	Virtual Tours	Weather Information	Safety Information
Ability to book accommodations, tours, or purchase tickets directly.	Insider info and recs from locals or experts.	Virtual or augmented reality experiences of attraction.	Current and forecasted weather to help with trip planning.	Important safety tips and emergency contact info.
Sagrada Familia Official	**Visit Port Aransas**	**Visit Mackinac Island Michigan**	**Travel Belize**	**VISIT FLORIDA**
Allows visitors to buy tickets and book guided tours for Barcelona's iconic basilica.	Offers expert advice on beach activities, wildlife viewing, and local favorite restaurants.	Features 360-degree virtual tours of historic sites and scenic viewpoints around the island.	Offers real-time weather updates and seasonal information for different regions of Belize.	Provides hurricane preparedness tips, beach safety guidelines, and emergency contact information.

User-friendly design, real-time and offline functionality, and customization are essential for success. High-quality local content, frequent updates, and support for local businesses drive engagement, while niche apps offering specialized solutions can capture specific audiences. Prioritizing these features can enhance user experience and app adoption of a Hawai'i super tourism app.

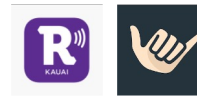| Frequent Updates & Maintenance Are Essential	Support for Local Businesses	Engaging and Entertaining Content	Specific Use-Case Solutions
Regularly updated apps perform better in terms of user satisfaction. Many apps, such as **Big Island Now** and **KHON2 WX**, face user dissatisfaction due to crashes or outdated content. Frequent updates not only improve functionality but also keep users engaged and reduce the need for reinstallation.	apps like **Hawaiiverse** stand out by offering proximity-based deals and promoting local businesses, providing users with a unique value proposition. These features benefit both tourists and locals, encouraging support for the local economy while exploring Hawai'i.	Tour apps like **Shaka Guide** and **Kaua'i Revealed Drive Tour** offer entertaining audio tours filled with cultural history and fun facts. Personalized, engaging content makes the travel experience interactive and enjoyable, with options for users to explore at their own pace.	Niche apps such as **Marine Weather Forecast Pro** provide targeted solutions for specific user groups like surfers or sailors. By addressing these unique needs, these apps enhance the experience for users who require specialized information.

To maximize app adoption, focus on reducing crashes, improving GPS accuracy, integrating authentic local experiences, and enhancing user support and engagement.

1

Improve Stability

Many of the apps suffer from frequent crashes, as reported in apps like HNL Info and Kauaʻi Beach Guide. Stability issues are a major deterrent for users, and improving the app's performance could lead to significantly better user retention.

2

Enhance Data Accuracy

Apps that rely on GPS data, like DaBus2 and Oʻahu GPS Audio Tour Guide, often receive complaints about inaccurate location information and timing delays. Ensuring that GPS data is synchronized and accurate can greatly improve user experience for navigation-based apps.

3

Integrate More Local and Cultural Features

There is a growing preference for apps that provide authentic, localized experiences. apps like Shaka Guide that offer Hawaiian history lessons and detailed insights into cultural landmarks are better received than those that simply aggregate generic tourist data.

4

Offer Better Support

apps like The Kauaʻi Bus Tracker and Marine Weather Forecast Pro receive criticism for poor customer support and slow responses to issues. Providing responsive support and actively engaging with users through updates, help centers, or FAQs will help enhance trust and user loyalty.

Key Categories in DMO apps outside of Hawai'i

Content Quality	Functionality	User Experience (UX)	Local Engagement and Promotion	Interactive and Engaging Features	Performance and Reliability

Informative Guides & Local Insights

- *National Park Service:* Detailed park info, GPS navigation, offline access.
- *Travel Belize:* Comprehensive info for exploring Belize, helpful for planning.
- *Visit Orlando:* Local info, ticket purchasing, good for new residents.

Offline Access & Booking

- *Japan Travel - Route, Map, Guide:* Accurate train times, integrates buses and ferries.
- *Go City:* Easy to purchase and scan tickets, wide variety of attractions.
- *Sagrada Familia Official:* Convenient ticket access, audio guide for self-tour.

Ease of Navigation & Design

- *Experience Abu Dhabi Official:* User-friendly, trip planning, visually clean.
- *Visit Valdosta:* Easy to navigate, visually appealing, useful planning tools.
- *Visit Waco TX:* User-friendly, comprehensive event listings, map for navigation.

Support for Local Businesses & Events

- *Indian Lake:* Promotes local businesses, community info.
- *Hawai'iverse:* Local deals, supports local businesses.
- *Beer City Brewsader:* Tracks brewery visits, rewards, maps.

Engaging Tours & Narration

- *Shaka Guide:* GPS audio tours, Hawaiian history, offline use.
- *Amazing Thailand:* Visually appealing, promotes attractions.
- *Creole Nature Trail:* Detailed locations, virtual travel.

Accurate & Timely Info

- *KHON2 WX:* Accurate weather updates, radar features.
- *Marine Weather Forecast Pro:* Reliable buoy data, comprehensive weather details.
- *Japan Travel - Route, Map, Guide:* Accurate navigation, reliable for JR Pass holders.

Appendix 7

Current Reservation Sites
Pages 225-227

Current Reservation Sites

Park/Site/Organization Name	Island	Reservation Type	Agency Responsible for Site	Reservation System
Hanauma Bay Nature Preserve	O'ahu	Entry for non-residents	City and County of Honolulu	Parks and Recreation Online System (PROS) - Custom-Built System
City and County of Honolulu Camping Reservations	O'ahu	Camping permit	City and County of Honolulu	Parks and Recreation Online System (PROS) - Custom-Built System
Diamond Head State Monument	O'ahu	Entry for non-residents	Hawai'i DLNR	Custom-built Online Reservation System managed by DLNR
'Īao Valley State Monument	Maui	Entry and parking for non-residents	Hawai'i DLNR	Custom-built Online Reservation System managed by DLNR
Wai'ānapanapa State Park	Maui	Entry and parking for non-residents	Hawai'i DLNR	Reef Parking
Hā'ena State Park	Kaua'i	Entry and parking for non-residents	Hawai'i DLNR	Smart Stubs
Nāpali Coast State Wilderness Park	Kaua'i	Camping permit for hiking beyond Hanakāpī'ai Valley	Hawai'i DLNR	Smart Stubs (Access Through Hā'ena State Park)
State of Hawai'i Camping Reservations	State of Hawai'i	Camping permit	Hawai'i DLNR	Tyler Technologies
Explore Outdoor O'ahu	State of Hawai'i	Information and links to Rez Sites	Hawai'i DLNR	N/A (Links to Reservation Sites)
Kalaupapa National Historical Park	Moloka'i	No current entries permitted	National Park Service (Federal)	Recreation.gov
Ford Island Bus Tour	O'ahu	Entry for residents and non residents	National Park Service (Federal)	Recreation.gov

Current Reservation Sites

Park/Site/Organization Name	Island	Reservation Type	Agency Responsible for Site	Reservation System
USS Arizona Memorial Programs	O'ahu	Entry for residents and non residents	National Park Service (Federal)	Recreation.gov
Haleakalā National Park	Maui	Sunrise viewing, Entry for residents and non residents	National Park Service (Federal)	Recreation.gov
Pearl Harbor National Memorial	O'ahu	USS Arizona Memorial program, Entry for residents and non residents	National Park Service (Federal)	Recreation.gov
Kīlauea Point National Wildlife Refuge	State of Hawai'i	Entry for residents and non residents	U.S. Fish and Wildlife Service	Recreation.gov
Queen Emma Summer Palace	O'ahu	Entry for residents and non residents	Not Government - Daughters of Hawai'i - Non-profit Organization	The Modern Events Calendar plugin by Webnus
'Iolani Palace	O'ahu	Entry for residents and non residents	Not Government - Non-profit Organization (Non-profit)	FareHarbor
Waikīkī Aquarium	O'ahu	Entry for residents and non residents	University of Hawai'i	Custom Build
Lyon Arboretum	O'ahu	Entry for residents and non residents (free but donations recommended)	University of Hawai'i	Eventbrite

Appendix 8

Potential Risks and Challenges
Pages 228-230

Potential Risks and Challenges

Potential Risks and Challenges	Category	Risk Likelihood	Risk Impact
Mitigating Negative Social Media Influence	Competitive and Market Risks	2 - Medium	2 - Medium
Competition with Global/Existing Platforms	Competitive and Market Risks	2 - Medium	2 - Medium
Content Curation and Maintenance	Content and Relevance Risks	3 - High	2 - Medium
Marketing and Awareness Gaps	Content and Relevance Risks	2 - Medium	2 - Medium
Perception as a Marketing Tool	Content and Relevance Risks	2 - Medium	2 - Medium
Cultural Misrepresentation	Cultural and Community Risks	2 - Medium	2 - Medium
Balancing Visitor and Resident Needs	Cultural and Community Risks	2 - Medium	2 - Medium
Resident Sentiment and Buy-In	Cultural and Community Risks	2 - Medium	2 - Medium
Balancing Commercial and Cultural Goals	Design and Usability Risks	2 - Medium	2 - Medium
Avoiding Redundancy	Design and Usability Risks	2 - Medium	2 - Medium
Avoiding Over-Ambition	Design and Usability Risks	2 - Medium	2 - Medium
Low Adoption Due to Perceived Irrelevance	Design and Usability Risks	2 - Medium	1 - Low
Balancing Depth and Usability	Design and Usability Risks	1 - Low	1 - Low
Funding and Long-Term Sustainability	Economic and Sustainability Risks	2 - Medium	3 - High
Economic Equity Concerns	Economic and Sustainability Risks	2 - Medium	2 - Medium
Monetization Risks	Economic and Sustainability Risks	2 - Medium	2 - Medium
Emergency and Crisis Response Gaps	Environmental and Safety Risks	2 - Medium	2 - Medium
Privacy and Data Security Concerns	Legal, Regulatory, and Ethical Risks	3 - High	3 - High
Legal and Regulatory Compliance	Legal, Regulatory, and Ethical Risks	2 - Medium	2 - Medium
Regulatory and Legislative Volatility	Legal, Regulatory, and Ethical Risks	2 - Medium	2 - Medium
Aligning with Legislative Goals	Legal, Regulatory, and Ethical Risks	1 - Low	2 - Medium
Scope Creep	Project Management and Implementation Risks	1 - Low	1 - Low
Resistance to Change	Project Management and Implementation Risks	1 - Low	1 - Low

Potential Risks and Challenges (Continued)

Potential Risks and Challenges	Category	Risk Likelihood	Risk Impact
Analysis Paralysis	Project Management and Implementation Risks	1 - Low	1 - Low
Stakeholder Bias and Priority Conflicts	Stakeholder and Governance Risks	3 - High	3 - High
Inconsistent Government Ownership	Stakeholder and Governance Risks	3 - High	2 - Medium
Addressing Stakeholder Competition	Stakeholder and Governance Risks	2 - Medium	2 - Medium
Stakeholder Buy-In and Participation	Stakeholder and Governance Risks	2 - Medium	2 - Medium
Bureaucratic Complexity	Stakeholder and Governance Risks	2 - Medium	2 - Medium
Technical Integration Challenges	Technical and Functional Risks	3 - High	3 - High
Technical Expertise and Maintenance	Technical and Functional Risks	2 - Medium	2 - Medium
Reliable Internet Connectivity / Offline Functionality	Technical and Functional Risks	2 - Medium	2 - Medium
Integration of Real-Time Data	Technical and Functional Risks	2 - Medium	2 - Medium
Accessibility and Multilingual Support	Technical and Functional Risks	1 - Low	1 - Low
Visitor Behavior Change and Management	User Adoption and Behavior Risks	2 - Medium	2 - Medium
Visitor Resistance to Mandatory Features	User Adoption and Behavior Risks	2 - Medium	2 - Medium
Visitor Tech Limitations / Digital Divide	User Adoption and Behavior Risks	2 - Medium	2 - Medium
User Adoption and Engagement	User Adoption and Behavior Risks	2 - Medium	2 - Medium
Post-Trip User Engagement	User Adoption and Behavior Risks	2 - Medium	2 - Medium
Handling Diverse Visitor Segments	User Adoption and Behavior Risks	2 - Medium	2 - Medium