Chapter 1

**INTRODUCTION**

# Situational Analysis

The tourism industry has experienced tremendous growth in recent years (Richards G., 2018). The rapid development of communication and information technology across the globe, as well as the widespread use of the internet, has partly contributed to this massive leap. These advancements have simplified the process of accessing enormous amounts of global data for potential tourism on points of interest, travel plans, and destinations. These systems allow tourists, local or international, to pave undemanding and facile ways on their desired destinations.

The Internet has a better influence on making a tourism spot popular, it is one of the factors that also gives a positive impact in tourism.

Having access to relevant and information is the core product of tourism, more importantly in this current era of the Internet information overload (Abdulhamid S.M. & Gana U, 2010). Numerous researchers have conducted studies to enhance the effectiveness and accuracy of information on tourism websites.

According to Gupta D.D. & Utkarsh (2014), websites are the best medium to relay information in the tourism industry. Tourism websites play a vital role in the realm of information and communication technology. It helps travelers to make travel-related decisions.

Websites serve as essential sources of information, acting as bridges that help tourists make informed decisions about destinations. In this current era of information technology, the importance of these websites lies in their ability to efficiently distribute vast volumes of multimedia-related information across the globe.

Using multimedia and attractive design is also important in attracting potential visitors to these websites.

Bolinao, officially the Municipality of Bolinao, is a first-class municipality in the Philippines province of Pangasinan. Politically, Bolinao is divided into thirty barangays.

The term Bolinao refers to the name of the town, its people, and its language. Bolinao residents typically speak Pangasinan, Ilocano, Tagalog, and their distinct native language known as Bolinao, which is also spoken in the nearby town of Anda, a former barangay of Bolinao. The Sambalic dialect is closely related to the Bolinao dialect. Bolinao became a part of the Province of Pangasinan after the Philippine Commission passed Public Act No. 1004 on November 30, 1903.

Tourism in Bolinao, Pangasinan is being recognized with every day that passes. It is one of the most famous destinations in the province of Pangasinan because it has numerous tourism spots that people would love to see and experience.

The average number of tourists visiting varies according to the season and the current travel restrictions. Due to the pandemic, average tourist arrivals have dropped significantly in the last two years According to statistical data requested by Erika, A. (2022), The average domestic tourist arrival pre-pandemic was around 150,395, and around 518 were recorded as foreign visits. These figures dropped significantly around 2020 when total tourist arrivals in Bolinao were estimated to be around 10,712 total visitors. As of 2021, tourist arrivals had recovered by almost 529% (56,763 total), primarily due to the relaxation of travel restrictions in both domestic and foreign travel.

With the recovery of tourist’s activities, numerous establishments in Bolinao have also started to resume their businesses. Famous tourist spots in Bolinao are the following: Patar White Beach, Bolinao Falls, Enchanted Cave, and Cape Lighthouse (Bolinao Tourism, 2019). These spots attract tourists and numerous business owners. More than eighty-eight establishments are registered in the Department of Tourism (DOT) for different services (Bolinao Tourism, 2022). Among these establishments, forty-four were offering Mabuhay Accommodation. Mabuhay Accommodation refers to services such as Tourist Inns, Motels, Beds, Vacation Homes, and Hotels. The remaining establishments composes of around thirty-five resorts that are closer to the beach spots of Bolinao. The remaining number then offers restaurant or food services.

Tourism activities in Bolinao peak during the summer season, specifically in March, April, and May. On major holidays and throughout the summer, Bolinao experiences heavy traffic in tourism activities, leading to inconvenience for visitors and potential negative reviews in the locale.

"Overtourism" is a phenomenon currently happening in certain tourist destinations in the Philippines. This is when too many tourists are in one destination that there are no adequate hospitality tools to accommodate them due to limited carrying capacity. This affects the environment negatively, and it slowly becomes uninhabitable.

With the emergence of this phenomenon called overtourism means that Bolinao’s tourism also needs to transition over newer technology or methods to (1) continue monitor the destinations that visitors would be interested in, (2) be able to regulate heavy traffic and policy for desperate measures, (3) mitigate the impact of overtourism.

Tourism indeed also needs a monitoring dashboard that can be used by the Tourism Management Office of Bolinao.

The Tourism Management Office is responsible for the promotion of tourism activities. They are responsible for creating opportunities for residents of this locale to be part of the tourism industry through these activities. It is also part of their activities to develop new products that can assist in marketing and promoting the municipality of Bolinao and the province of Pangasinan.

The Tourism Management Office of a local is responsible for relaying information to potential guests and making them feel comfortable wherever they are as possible.

Tourism Management implements marketing efforts to attract tourists to travel to destinations, whereas it engages in activities such as studying tour destinations; planning tours; Creating travel arrangements for guests/tourists; and providing accommodation (Deblina D., 2019).

As tourism in a locale is growing, more information must be published online for better knowledge on reaching a specific local tourist destination or even knowing the availability of hotels, resorts, and transportation within the tourism locale.

With the increasing popularity of a destination means, information must be given to potential guests to know what they need, what steps they should take, and so on. This needed information is being managed in the tourist office through a lot of paperwork and communication.

Providing a website with information on a tourist destination's historical traffic would be knowledgeable to guests and tourists. This website will be effective in the decision-making and policy-making of LGUs, especially in Bolinao.

A Tourism Monitoring System is designed to help manage the flow of visitors. Modern visitor management is commonly conducted via digital means, using software and interactive devices, but they can be done using a pen and paper log.

It is a dynamic and responsive system, and it addresses the challenges of managing the records, missing records due to human errors, and etc. (Shruti S., 2021).

This type of web system was created for tourism. One of its applications is to handle information and solve problems efficiently intelligently.

It answers the problem of traditional management of tourist records regarding human errors, lack of audits, inaccuracy of information, and historical records.

The stable development of Bolinao's tourism sector has influenced more guests and visitors to be attracted by its beauty. It also had a positive impact on the economy of Pangasinan.

The development of this web system would result in a more modern method of monitoring tourist traffic in specific destinations or areas, particularly in the Bolinao area.

This study can further help the growing demand of visitors to have more knowledge on what Bolinao tourism has to offer with the help of the latest web technology and frameworks proposed.

# Objectives of the Study

The study aims to develop, design, and deliver a web-based application (Tourism Monitoring System) that will aid and provide accommodation for both local and international tourists before and during their travel within the different tourist attractions in the Municipality of Bolinao, Province of Pangasinan.

Within this broad theme, the study had several specific objectives:

1. Identify the existing process in tourist data collection and monitoring techniques of Bolinao's Tourism.
2. Identify the problems encountered within the existing process of the Bolinao Tourism Office.
3. Devise features to be integrated with the proposed Tourism Monitoring System; and
4. Determine the acceptability level of the developed system.

# Importance of the Study

The study entitled Tourism Monitoring system for Bolinao shall benefit to the following:

To the Tourism Office of Bolinao. The study will help the Tourism Office of Bolinao to have intelligent decision-making and delegation regarding tourist activities.

To the Owners of Tourist Infrastructures. The study will help owners (government or non-government) of these tourist infrastructures to assess the current situation of the locale and be able to formulate decisions in relation to their current carrying capacity.

To the Tourists**.** The proposed study shall aid to increase tourist activities in the local area and give tourists reliable and accurate navigation and information on how to go and the available activities to a particular tourist location in the local area.

To the Proponents. This study will provide experience to the proponents and further enhance their research and system analysis and design skills.

To the Future Proponents. The study will significantly help future researchers/developers use this study as a reference or guide in developing and advancing the study of tourism and tourist management.

# Scope and Delimitation

The study will focus on the design and development of the proposed title Tourism Monitoring System for Bolinao. The Tourism Office of Bolinao LGU will be the primary data collection/gathering area.

The study would cover the following operations inside the tourism office, including (a) Tourist Account & Activity Management, (b) Monitoring Techniques, (c) Tourist Data Collection, and (d) Recommendation of a List of Registered Establishments.

This study does not include anything related to financial transactions, such as payment of reservations and others.

# Definition of Terms

The following terms were defined by the proponents to adhere a coherent understanding of the readers and appreciation of the study:

Dashboard. A visual display of all the data. Its primarily used to provide information in all kinds of diverse ways. A dashboard is often located on its page and fetches information from a linked database.

Epics. A term used in Scrum means extensive work that can be broken down into smaller tasks.

Increments. It is the sum of all the tasks that were developed during the sprint. This task comprises use cases, user stories, product backlogs, and any element developed during the sprint.

Iterative Prototype. A cycle in which numerous "versions" or iterations of a product are created, prototyped, tested, and refined.

Overtourism. The phenomenon whereby certain places of interest are visited by excessive numbers of tourists, causing undesirable effects for the places visited.

Product Backlog. It is a comprehensive list that encompasses all the requirements necessary for the product to meet the needs of potential customers. It answers the question “What should be done?” It helps in listing the things that must be done in developing the system.

Scrum. It is a framework for implementing Agile projects that includes rules, roles, events, and artifacts. It is an iterative approach with sprints lasting one to four weeks.

Sprint Backlog. It is a subset of items from the Product Backlog, selected by the Scrum team to work on during the sprint. It helps the scrum team identify areas that need improvement during the system's development.

Sprints. A Sprint represents a timebox within which the team must develop a set of features.

Stories. A term used in Scrum is short requirements or requests written from an end user's perspective. It helps in identifying user requirements for the system.