CHAPTER I

BACKGROUND OF THE STUDY

Information Kiosk had been widely used by many establishments nowadays. Ranging from private to public business or governmental establishment Information Kiosk played a very important role for the companies' advertisement and services. An information kiosk dispenses free information in the form of maps, pamphlets and other literature, and advice offered by an attendant. It is a computer terminal that often employs custom kiosk software designed to function flawlessly while preventing users from accessing system functions. Computerized kiosks may store data locally, or retrieve it from a computer network. Some computer kiosks provide a free, informational public service, while others serve a commercial purpose. Touch screens, trackballs, computer keyboards, and pushbuttons are all typical input devices for interactive computer kiosk. The technology used in interactive kiosks is basically the same as that used in computer. Touch screen kiosks are mainly operated with the help of a control unit and a touch screen sensitive LCD monitor. To operate a kiosk the user simply needs to touch the area of the screen to navigate the custom built show. The touch screen operation of the kiosk makes the functioning very simple and user-friendly. When the kiosks are not in use, they can act as a screen saver to serve as an advertising tool. Kiosks have a wide range of applications and can be seen in department stores, airports and in government offices. A few of the different services provided by a kiosk are accessing live news from the newsroom with the very latest news and information, accessing popular galleries with stills and video clips, and information on job vacancies. Kiosks can be used for an infinite number of applications, including gaming, bill payment, eCommerce, human resource, customer service, credit application, vending machines, sales and marketing, and Internet access.

To add some more Information Kiosk had been so popular because of its long lasting steel construction of the kiosk helps it to be rugged and secure and is suitable for placing it in any environment.

A kiosk saves valuable floor space. Just by plugging them in, they are ready to go. The hardware and software comes within a single unit. Kiosks are very easy to maintain. All of the components of a kiosk are easy to repair and replace. With the help of remote administration options, the tracking of kiosks can be done via the Internet, e-mail, or phone alerts for low paper or power failure.

Tourism in Pangasinan is the source of socio-economic growth , culture and arts development, heritage preservation and natural resources conservation in a tourist friendly environment which improves the quality of life of Pangasinenses and ensures them for a brighter future. Headed by Ma. Luisa A. Elduayan, chief tourism operations Officer, The Department of Tourism (D.O.T.) is the primary government agency tasked to encourage, promote and develop tourism as a major socio-economic activity with the support of both the private and public sectors. In addition, it undertakes the necessary steps to ensure safe, convenient and enjoyable stay and travel of the country's domestic and foreign tourists. The D.O.T. basically formulates programs and projects that develop and promote the Philippine tourism industry here and abroad. Thus, it devises an integrated marketing and promotions program to attract people from other countries to visit the Philippines and also sets standards to ensure that all facilities, personnel and services of tourism-oriented establishments such as hotels, resorts, inns, travel agencies and other similar facilities and services to ensure their strict adherence to the standards set for the industry. The regional offices of the D.O.T. are basically responsible for domestic tourism promotion, tourism marketing, regulation and supervision, tourism assistance, public relations, coordination with local government units and tourism administration in the region. However, there is still a need to enhance the promotion of Tourism in Pangasinan. Governor Amado T. Espino, in one of his interviews stated that there is still a need to enhance tourism in our province and that is by building infrastructure for tourism development, upgrading facilities and standards and harnessing culture for tourism. Also, the Department of Tourism in Pangasinan identifies visitors' lack of knowledge of historical and cultural aspects of the city as a major weakness of the tourism industry.

With this regard, one of the solutions that the researchers have identified to address these weaknesses is the implementation of 24 hour touch screen information kiosks throughout the city. Also, partnership with local banks and Telecom companies could provide a one-stop visitor information center near the Province Capitol.

Statement of the Objectives

The study provides an Information Kiosk or Information Booth for the Province of Pangasinan to promote Tourism in the Province. Specifically, it sought to answer the following statements.

1. To introduce the used of Information Kiosk as a tool for promoting Tourism in the Province of Pangasinan.

2. To identify the hardware and software requirements needed for the implementation of Information Kiosk.

3. To identify a specific location where this touch screen Kiosk should be place for its security and sustainability.

4. To classify the contents or information requirements that this Information Kiosk needed for the ease of usage of the Tourists or Travelers.

Significance of the Study

The study will be very significant to the following beneficiaries:

The Province of Pangasinan. The province of Pangasinan is one of the most richest provinces in the country. From natural resources like Hundred Islands, famous beaches, ancestral houses like Urduha house, prehistoric churches like the oldest church in Bolinao, the Province of Pangasinan will benefit in this study since this can attract more Tourist in the Province therefore the more funds the Province will earned

The Office of Department of Tourism. Information dissemination regarding Pangasinan will be easier since it will be using Information Kiosk. This project will be significant to them because it will make their work much more efficient and much more easy.

The Tourists. Most of the tourist would like to learn and know something about the place they are going to venture at. With the help of Information Kiosks, the tourist will have a complete information guide about the things that they are inquisitive about and the information that they needed.

The developers. As future Information Technology professionals, the study will serve as training in web development and programming. Through the study, the developers will be able to acquire deeper knowledge, helpful tips and techniques in the usage and implementing Information Kiosks.

Future Developers. More and more innovations are being discovered in the field of Information Technology day by day. Future developers can use this study as a reference in developing another kind of Information Kiosks in any other field not only limiting to Tourism.. This will give the future developers the ideas, valuable information and will serve as a guide for their study.

Scope and Delimitation

The study focused on the development of Information Kiosks for the Tourism Department in Pangasinan. The access of the system will be available to the Tourists who visits the Province. This is also available to recognize employers from different business organizations and to the Department of Tourism Office Staffs.

The system shall contain all variety of information, particularly the attractions and historical and cultural aspects of the province. The system shall used a touch screen monitor which will have 9 different categories such as Accommodations , Dining , Services, Explore Pangasinan, Events and Attractions , Health and Safety , Transportation, Shopping and Arts and Culture. The Information Kiosk shall also contain the following categories which are Safety tips, Pictures of attractions, Directions to establishments and City maps. To accommodate the largest number of tourists possible recommend that the database be made available in multiple languages, including English, German, French, and Afrikaans. The system will be administered by the Province Information Technology Office of Pangasinan. As a delimitation of the system, the Information Kiosk delimits any transactions like hotel reservations and any forms of online payments.

Chapter II

Review of Related Literature

In this section we will present important considerations for the implementation of kiosks through the review of various case studies of prior kiosk projects. Information kiosks are used in a variety of different settings and manners, from health care to grocery shopping. Kiosk developers emphasize that with each application, the type of information or service and target population that is desired should be established. The use of kiosks can be very advantageous as they have the ability to enhance the amount of information being dispensed without increasing the necessary number of man hours. With the kiosk technology users could obtain information 24 hours per day. Kiosks are also easily updated and can be placed in easily accessible and central tourist locations.

The self-service and information kiosk industry has numerous technologies currently available. Current technology for information kiosks utilizes touch-screen technology to ease navigation through the system, in addition to advanced features to enable telephone calls, printing, card swiping, credit card ordering, and internet access. Additionally, current systems have the option of providing dedicated advertising area on each screen in order to provide revenue from the system.

According to the Fourth Annual Kiosk Benchmark Study, the top-rated technology by a survey of respondents was touch screens, as seen in Figure 2. Internet connection came second, followed by remote management. Printers were still considered important, as well as credit card acceptance. The study also notes that emerging technologies include video and plasma displays, which have come down in price and can help draw users, as well as signature capture and wireless internet connections (Fourth Annual Kiosk Benchmark Study, 2004).

Software can greatly add to the user experience at a kiosk. For kiosks with telephone capabilities, software can automatically connect a tourist to local restaurants or the nearest hotel to make reservations. With further development and access, an internet connection can directly connect

the user to a local company's website to gain more information or make a booking directly from the kiosk. If the kiosk is enabled with credit card ordering technology, the user even has the option of pre-paying for lodging from the kiosk. A kiosk with printing capabilities can print out driving or walking directions to local destinations and hotspots. There is a broad range of applications for the current information kiosk technologies (Fourth Annual Kiosk Benchmark Study, 2004).
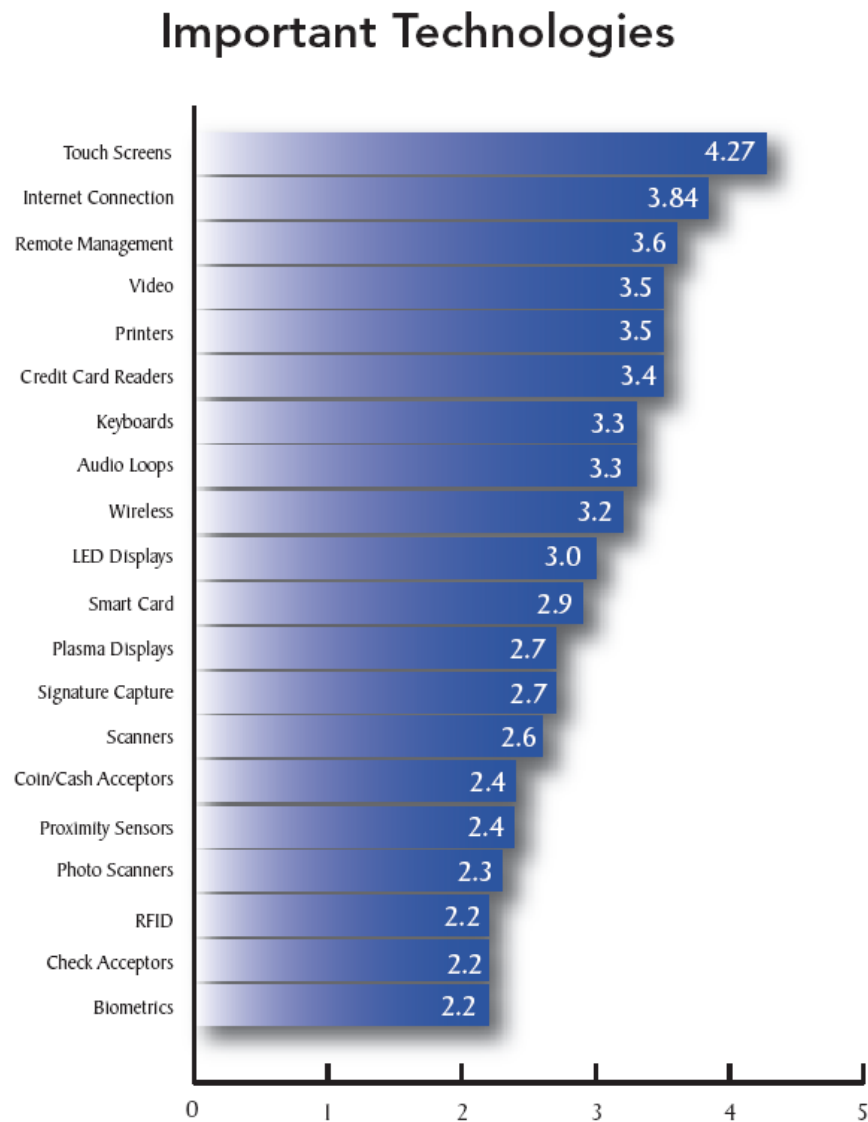
Important Technologies

Technology	Rating
Touch Screens	4.27
Internet Connection	3.84
Remote Management	3.6
Video	3.5
Printers	3.5
Credit Card Readers	3.4
Keyboards	3.3
Audio Loops	3.3
Wireless	3.2
LED Displays	3.0
Smart Card	2.9
Plasma Displays	2.7
Signature Capture	2.7
Scanners	2.6
Coin/Cash Acceptors	2.4
Proximity Sensors	2.4
Photo Scanners	2.3
RFID	2.2
Check Acceptors	2.2
Biometrics	2.2

Figure 2: Survey results for most important kiosk features. Fourth Annual Kiosk Benchmark Study (2004)

Networked kiosks allow for usage statistics, remote access of hardware and software, status monitoring, technical reports, and database management (eCONTEX, 2004). Taking a strategy from Scotland might help in addressing how to create the necessary network connections for kiosks. To allow networking of their kiosks, the Scotland designers chose to locate the kiosks adjacent to existing phone booths (Hoskins, 2005). In this way, the designers were able to use the existing phone line for an internet connection to the kiosk. It was also possible to include with the kiosk an automatic teller machine (ATM), because of the internet use of this design. They were also able to function as a wireless hot spot for travelers.

According to the article Getting it Across, the information the user receives from the system is important; many unsuccessful designs occur when the designers forget to take into account that the target population for the kiosk is often "computer novices" (Borcher, Deussen, Knorzer, 1995). As stated by James Praschak, the average user's attention span is only five to seven minutes (J. Praschak, personal communication, 6 February 2006). The article *Getting it Across* elaborated that if the information cannot be found in that time, any chance of appealing to that person is lost. Information must be organized in such a way that it is easy to read and find. Essentially, a person who has never used a computer in his or her life should be able to walk up the system and easily find the information they are looking for (Borcher et al., 2005).

The structure of the actual desk should also be considered. There are many styles and materials which can be used in kiosk construction. Most kiosks are built of metal, wood, plastic, or a combination of these materials (Kiosk Marketplace, 2006). Whereas wood is easy to use and provides a more sophisticated look for the kiosk, it can be heavy and cost more than metal. Also due to the thickness of the material fewer components might be able to fit in the interior of the structure. Metal can be more easily erected into many more shapes than wood. Also, metal is more durable and

resistant to the elements than wood, thus if the kiosks are placed outdoors, wood would not be an acceptable building material. Some kiosks are made from injection molded plastic. However, creating a mold for the project often can cost upwards of approximately N$480 000 (Kiosk Marketplace, 2006).

When considering the implementation of outdoor kiosks another important consideration is the effect of rainwater. The structures should have waterproof gaskets to prevent moisture from entering the internal electronics and to ensure continued functionality. Another consideration is the effect of the sun within the region. In direct sunlight, the touch screen will be difficult to see. Thus, the touch screen should have an extra bright monitor to allow the user to easily see it in sunlight or have a shaded or covered viewing area (Kaszycki, 2005).

While a custom desk design has the ability to produce a kiosk that exactly fits the user's needs, cost for these structures is high. There are multiple companies that have commercially available kiosks. The purchase of one of these structures could prove to be more economical when working with tight budgets.

IBM, Mass Multimedia Inc., and I-Touchsystems are three examples of these companies. These companies all have both freestanding and wall mounted kiosks. Their designs allow for many components or upgrades to be made such as the addition of thermal printers or larger monitors.

According to James Praschak, a technology officer for Miles Media Group, Inc., kiosk technology has a limited life span. Miles Media Group is a tourism company that has installed and removed over 400 information kiosks in 15 cities across the United States. Mr. Praschak went on to say that, in the US, tourism kiosks were very popular towards the beginning of the internet revolution. The kiosks themselves had an internet feel to them providing tourists with a novelty that enticed their use. However as the internet began to grow, and more information was readily available to travelers before they reached their destination, the need for tourism kiosks diminished. Tourists now arrive at their destination already knowing where to go and what to see (J. Praschak, personal

communication, 6 February 2006). Because of this, it may be that in many countries information

kiosks are only a temporary solution to a tourist information problem.